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CELEBRATING 10 YEARS OF EXCELLENCE IN PEDIATRICS

Now in its 10th edition – December 2018

Celebrating EIP’s 10th Edition

Join us next December at this dynamic and interactive international pediatric Conference and help improve child health globally.

Designed to equip healthcare professionals with the latest research, updates and best practice advice, helping you to improve your everyday practice.

- Remaining in Europe in 2018 and attracting hundreds of delegates from over 90 countries
- Over 90 internationally renowned speakers delivering 100+ sessions
- Plenary keynotes, classes, controversies debates and workshops
- Covering a broad range of topics across Neonatology, Pediatrics and Adolescent Medicine
Dear Colleagues and Friends,

Welcome to the 9th Edition of the Annual Excellence in Pediatrics (EiP) Conference and thank you for joining us for what promises to be our most successful meeting to-date. For the first time in EIP’s history we are delighted to be in the beautiful city of Vienna. Please make the most of your inspiring surroundings and connect with your fellow delegates and colleagues from 85+ countries around the world.

As ever, we are very thankful that over 90+ of the leading experts in pediatrics, neonatology, and adolescent health have agreed to present their latest research over the next 3 days in an eclectic mix of practical-learning sessions, lectures, workshops, InFocus sessions, and masterclasses. We have never had such a large conference faculty, so please make the most of their expertise and experience at every opportunity possible.

Collaboration is key to EIP and the 9th Edition is once again a truly collaborative effort held in conjunction with the Health Behaviour in School-aged Children (HBSC): WHO Collaborative Study, the WHO Collaborating Centre for International Child and Adolescent Health Policy based at the University of St Andrews School of Medicine, the Leadership Foundation for Higher Education and a host of other partners and supporters. We are very grateful to all our partners for their help and support in creating such an inspiring and practical conference programme.

In addition to the main conference, it’s great to see that 150+ abstracts have been accepted and EIP 2017 will feature over 100 posters and 9 hours of oral presentations. New research is critical for improving standards of care and we would encourage you to view the posters located in Hall Mancini 3A during the coffee and lunchbreaks and attend as many oral presentation sessions as possible. As well as being included in this onsite brochure, all accepted abstracts have been published by Cogent Medicine online as the final, definitive and citable version of the book of abstracts.

In parallel to the main conference sessions and oral presentations, EiP are also hosting the 2nd Life Course Immunisation Focus Group Meeting on Friday 8th December from 10:15-14:15 in the Wien Room on the first floor. This is an open meeting tasked with overcoming vaccine hesitancy across Europe and we would encourage you to join to help improve vaccinations rates across Europe. The full Focus Group agenda is available on pages 47-48.

Thank you for attending and we all hope that you enjoy EIP 2017 and look forward to meeting and working with you over the coming 3 days in Vienna and continuing to collaborate with you into 2018 and beyond.

TERENCE STEPHENSON
Chair of the General Medical Council (GMC) in the UK and Nuffield Professor of Child Health at the Institute of Child Health at University College London, UK

JOAN-CARLES SURIS
Institute of Social and Preventive Medicine and Department of Pediatrics Lausanne University Hospital, Switzerland

JO INCHLEY
HBSC International Coordinator, University of St Andrews, School of Medicine, UK
Dear Conference Delegates,

It gives me huge pleasure to introduce the 2017 scientific program for the 9th edition of the Excellence in Pediatrics Conference in Vienna.

As you will see the program follows the same overall structure adopted for the past 2 editions and there are 20 sub-sections (groups of 3-4 presentations) over the 3 conference days covering the latest developments, trends and practice changes in pediatrics (12 red sections), adolescent medicine (4 blue sections) and neonatology (2 green sections). In addition to the 20 subsections listed above, there are also 10 workshops, 7 professional development sessions, 5 Spot the Early Signs training courses, 3 briefings, a Masterclass and an InFocus session.

The colour coding and design of the program allows you to pick and choose the most relevant sections and sessions to allow you create your own personalised conference agenda from over 80 hours of conference content. To help you choose the right session for your needs, each one has a clear set of 3 learning objectives that are detailed in the full version of the program on pages 24-48. These objectives will allow you to have a much better understanding of what you will glean from each session. In addition, you will be asked to evaluate each session through delegate evaluation cards that will help EiP to constantly improve the quality of the sessions and build and improve the conference for the 10th edition next year.

I would encourage you to actively participate and interactive with over 90+ global expert speakers and the many hundreds of your fellow delegates from around the world. Please make the most of what promises to be our most inspiring scientific programme to-date that combines applied medicine and interactive learning to improve the way you practice.

G. Syrogiannopoulos
2017 Scientific Program Coordinator
Professor and Chairman of Pediatrics at the School of Medicine, University of Thessaly
CONFERENCE PROGRAMME
PROGRAMME
THURSDAY, 7 DECEMBER 2017

DAY 1: THURSDAY, 7 DECEMBER 2017  |  MORNING SESSIONS

08:00  |  REGISTRATION DESK OPENS

08:30 - 09:30  |  COFFEE START (Foyer Mancini 3A)

09:30 - 13:00  |  PROGRAMME

MORNING SESSIONS

11:00 - 13:00  |  Mancini 2 Hall
PE1: PEDIATRICS
Also available through EIP Online

Section on
GENERAL PEDIATRICS
3 Sessions
Presentations - Q&A Session
Moderator: ANDREW RIORDAN

- General Practice - Febrile Children in Primary Care - The Latest Practical Advice for Frontline Paediatricians
  GUS ELSDOUTH
  General Practitioner, Assistant Professor, Department of General Practice. Erasmus MC University Medical Center Rotterdam, THE NETHERLANDS

- Pyrexia of Unknown Origin
  ANDREW RIORDAN
  Consultant in Paediatric Infectious Diseases and Immunology at Alder Hey Children’s Hospital, UNITED KINGDOM

- Functional Abdominal Pain
  MARK BEATIE
  Professor, Consultant Paediatric Gastroenterologist, University Hospital Southampton, UNITED KINGDOM

11:00 - 13:00  |  Mancini 1 Hall
AD1: ADOLESCENT MEDICINE

Section on
ADOLESCENT WELLBEING
3 Sessions
Presentations - Q&A Session
Moderator: CURT HAGQUIST

- Teen Health Week: Advocating for Young People as a Clinician
  LAURA OIFFT
  Founder and Creator Teen Health Week, USA

- Adolescents Well-being in Romania: Linking Data and Practice
  ADRIANA BABAN
  Principal Investigator HBSC, Department of Psychology, Babes-Bolyai University, Cluj-Napoca, ROMANIA

- Consequences for Everyday Life of Mental Health Problems Among Adolescents
  CURT HAGQUIST
  Professor of Public Health, Director and founder of the Centre for Research on Child and Adolescent Mental Health (CFUBH) at Karolinska University, SWEDEN

11:00 - 13:00  |  Mancini 3B Hall
INF1: INFOCUS SESSION
Also available through EIP Online

INFLUENCE OF MICROBIOTA ON ASPECTS OF CHILD HEALTH
3 Sessions
Presentations - Q&A Session
Chair: SIMON KROLL

- Part A - Gastrointestinal Microbiota in Neonates and Necrotizing Enterocolitis
  SIMON KROLL
  Professor of Paediatrics and Molecular Infectious Diseases, Imperial College and St Mary’s Hospital, UNITED KINGDOM

- Part B - Evolution of Respiratory Tract Microbiota and its Relation to Respiratory Health in Children
  DEBBY SAGAERT
  Professor of Paediatric Infectious Diseases and Honoray Consultant in paediatric infectious diseases, Center for Inflammation Research, University of Edinburgh, UNITED KINGDOM

- Part C - Modulating the Gut Microbiota in Early Life – Impact on Future Health?
  STEPHEN ALLEN
  Professor of Paediatrics and Honorary Consultant Paediatrician, Liverpool School of Tropical Medicine, UNITED KINGDOM

11:00 - 13:00  |  Wien Room
NE1: NEONATOLOGY & EARLY LIFE PEDIATRICS

Section on
NEONATOLOGY
3 Sessions
Presentations - Q&A Session
Moderator: ROY K. PHILIP

- Neonatal Outbreaks: Approaching with Evidence and Effectiveness
  ROY K. PHILIP
  Consultant Paediatrician and Neonatologist, Adjunct Clinical Professor of Neonatology, University Maternity Hospital Limerick & GEMS, University of Limerick, IRELAND

- Diagnosing Neonatal Respiratory Distress Syndrome (RDS): An Update for Pediatricians
  FRANCESCO RAIMONDI
  Chief, Division of Neonatology, Section of Pediatrics Dept of Translational Medical Sciences, Università “Federico II” di Napoli, ITALY

- Integrative Prenatal Diagnostic and Postnatal Management for Congenital Malformation - Vesico-ureteral Reflux
  SEBASTIAN IONESCU
  Consultant Pediatric Surgery, Clinica de Chirurgie Pediatrica, Spitalul Clinic de Urgenta pentru Copii Maria Sklodowska Curie, ROMANIA

13:00 - 14:00  |  TURIN
OP1: ORAL PRESENTATIONS
12 Presentations - Q&A Session
Moderator: JUDIT VILLOSLADA
General Pediatrics Consultant, Hospital de l’Enfance, Lausanne, Centre Hospitalier Universitaire Vaudois, SWITZERLAND

13:00 - 14:00  |  Turin Room
LUNCH BREAK (Mancini 3A and Foyer)

13:00 - 14:00  |  Mancini 3A
POSTER VIEWINGS (Lunchtime Viewing Groups & Guided Tours) - Hall: Mancini 3A - Group 1, 2, 3 - JOAN-CARLES SURIS, JUDIT VILLOSLADA, CHRISTINA AKRE
### DAY 1: THURSDAY, 7 DECEMBER 2017  
### AFTERNOON SESSIONS

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### CONFERENCE PROGRAMME

#### PROGRAMME

#### THURSDAY, 7 DECEMBER 2017

**Day 1: Thursday, 7 December 2017**

**Section on Endocrinology & Growth**

- **4 Sessions**
- **Presentations - Q&A Session**
- **Moderator:** TIM CHEETHAM
  - Thyroid Disorders in the Young – What to do?
    - TIM CHEETHAM
      University Professor and Consultant Paediatric Endocrinologist, Newcastle University, Newcastle upon Tyne Hospitals NHS Foundation Trust, UNITED KINGDOM
  - Growth - Normal and Abnormal
    - ALAN D. ROGOL
      Professor Emeritus, Pediatrics and Pharmacology, University of Virginia, USA
  - Congenital Combined Pituitary Hormone Deficiency
    - JERZY B. STARZYK
      Professor, Head of the Department of Pediatric and Adolescent Endocrinology, Jagiellonian University, Medical College, Faculty of Medicine, Institute of Pediatrics, University Children’s Hospital in Krakow, POLAND
  - Translational Research in Pediatric Growth Disorders
    - FARASAT ZAMAN
      Assistant Professor, Department of Women’s and Children’s Health, Karolinska Institutet, SWEDEN

**Section on Childhood Obesity**

- **4 Sessions**
- **Presentations - Q&A Session**
- **Moderator:** KURT WIDHALM
  - EAROC Section - Obesity: A Topic for the Paediatrician? A Multisystem Approach to Tackling Childhood Obesity
    - INGE LISSAU
      Associate Professor, Senior Research Scientist at Clinical Research Unit, Copenhagen University Hospital, Hvidovre, DENMARK and Department of Child Health, Skane University Hospital, Malmo, SWEDEN
  - Family/Systemic Therapy in Treating Childhood Obesity
    - CARL-ERIC FLODMARK
      Medical Officer at Swedish National Board of Health and Welfare and Associated Professor at Lund University, Malmo, SWEDEN
  - Sedentary Behaviours in Children
    - LUIS MORENO AZNAR
      Full Professor at the University of Zaragoza, President of the Spanish Nutrition Society, SPAIN
  - Early-life Nutrition and Future Health: Will They be Giants?
    - ANGELO PIETROBELLI
      Professor of Pediatric and Nutrition at Pediatric Unit of Verona University Medical School, Adjunct Associate Professor at Pennington Biomedical Research Center Baton Rouge LA – USA, Associate Editor International Journal of Obesity, Senior Physician at Pediatric Clinic, ITALY

**WS1: WORKSHOP**

- 1 Tutor
  - Briefing with Q&A
  - Management of Childhood Nephrotic Syndrome
    - NICK WEBB
      Honorary Professor of Paediatric Nephrology, University of Manchester and Consultant Paediatric Nephrologist, Royal Manchester Children’s Hospital, Manchester, UNITED KINGDOM

**WS2: WORKSHOP**

- 1 Tutor
  - Audience Response Session
  - Diagnosis and Management of Autism & ADHD
    - MICHAEL FITZGERALD
      Professor of Child and Adolescent Psychiatry, IRELAND

**WS3: WORKSHOP**

- 1 Tutor
  - Audience Response Session
  - Management of Childhood Nephrotic Syndrome
    - NICK WEBB
      Honorary Professor of Paediatric Nephrology, University of Manchester and Consultant Paediatric Nephrologist, Royal Manchester Children’s Hospital, Manchester, UNITED KINGDOM

**WS4: WORKSHOP**

- 1 Tutor
  - Audience Response Session
  - Overcoming Vaccine Hesitancy
    - ROY K. PHILIP
      Consultant Paediatrician and Neonatologist, Adjunct Clinical Professor of Neonatology, University Maternity Hospital Limerick & GEMS, University of Limerick, IRELAND

**WS5: WORKSHOP**

- 1 Tutor
  - Audience Response Session
  - Pediatric Bronchoscopy - Indications for Rigid and Flexible Bronchoscopy
    - SUSANNE LAU
      Prof. Charité-Universitätsmedizin Berlin, Department of Pediatric Pneumonology and Immunology, GERMANY

**VACCINE HESITANCY**

- 1 Tutor
  - Audience Response Session
  - Management of Childhood Nephrotic Syndrome
    - NICK WEBB
      Honorary Professor of Paediatric Nephrology, University of Manchester and Consultant Paediatric Nephrologist, Royal Manchester Children’s Hospital, Manchester, UNITED KINGDOM

**Respiratory**

- 1 Tutor
  - Audience Response Session
  - Overcoming Vaccine Hesitancy
    - ROY K. PHILIP
      Consultant Paediatrician and Neonatologist, Adjunct Clinical Professor of Neonatology, University Maternity Hospital Limerick & GEMS, University of Limerick, IRELAND

**Cystinosis**

- 1 Tutor
  - Audience Response Session
  - Spotted the Early Signs of Cystinosis
    - NICK WEBB
      Honorary Professor of Paediatric Nephrology, University of Manchester and Consultant Paediatric Nephrologist, Royal Manchester Children’s Hospital, Manchester, UNITED KINGDOM

**Child & Adolescent Mental Health**

- 1 Tutor
  - Audience Response Session
  - Overcoming Vaccine Hesitancy
    - ROY K. PHILIP
      Consultant Paediatrician and Neonatologist, Adjunct Clinical Professor of Neonatology, University Maternity Hospital Limerick & GEMS, University of Limerick, IRELAND

**Cystinosis**

- 1 Tutor
  - Interactive Workshop
  - Getting Research Published
    - MARK BEATTIE
      Editor in Chief, Archives of Disease in Childhood, BMJ Publishing group, UNITED KINGDOM
### DAY 1: THURSDAY, 7 DECEMBER 2017

#### AFTERNOON SESSIONS

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#### Section on GASTROENTEROLOGY

- **4 Sessions**
  - Presentations - Q&A Session
  - **Moderator:** KURT WIDHALM
  - **Genetics and treatment of lipoprotein disorders - PART 1 - Familial hypercholesterolemia – state of the art**
    - KURT WIDHALM
    - President of the Austrian Academic Institute for Clinical Nutrition, Professor (Em.) at the Medical University Vienna, AUSTRIA
  - **Genetics and Treatment of Lipoprotein Disorders - PART 2 - Novel exciting treatments of severe forms**
    - CLAUDIA STEFANUTTI, MD, PhD
    - Professor, Head of Extracorporeal Therapeutic Techniques Unit, Lipid Clinic and Atherosclerosis Prevention Centre, Regional Centre for Rare Diseases Department of Molecular Medicine, ‘Sapienza’ University of Rome and ‘ Umberto I ’ Hospital, ITALY
  - **Epidemiology, Diagnosis and Management of Inflammatory Bowel Disease - Recent Advances**
    - MARK BEATTIE
    - Professor, Consultant Paediatric Gastroenterologist, University Hospital Southampton, UNITED KINGDOM
  - **Microbiome and Fecal Transplant**
    - AZIZ KOLEILAT
    - Associate Professor, Makassed University General Hospital Gastroenterology & Asthma, Vice General Secretary (PASPAGHAN) foreign affairs, Pan Arab Society Pediatric Gastroenterology, Hepatology & Nutrition, LEBANON

#### Section on ADOLESCENT HEALTH COMMUNICATION

- **3 Sessions**
  - Presentations - Q&A Session
  - **Moderator:** GERALD HUMPHRIS
  - **The Emotional Cues and Concerns Expressed by Oncology Paediatric Patients and the 17 Different Ways that Health Providers Respond**
    - GERALD HUMPHRIS
    - Chair in Health Psychology at University of St Andrews, Director of MSc Health Psychology course and Co Director of the WHO Collaborating Centre in International Child and Adolescent Health, UNITED KINGDOM
  - **Health Literacy Assessment in 13- to 17-year old Austrians: Results and Measurement Problems**
    - ROSEMARIE FELDER-PUIG
    - Principal Investigator, Institute for Health Promotion and Disease Prevention, HBSC AUSTRIA
  - **Seizing Golden Communication Opportunities in Pediatric Consultations**
    - TORUN MARIE VATNE
    - Frambu Resource Center for Rare Disorders, NORWAY

#### COMMUNITY PEDIATRICS

- **1 Tutor**
  - **The Goshen Project: A Model for Implementing Comprehensive Community Pediatrics**
    - BASIL PORTER
    - Emeritus Professor, Faculty of Health Sciences, Ben Gurion University of the Negev, Beersheva, ISRAEL

#### MANAGEMENT OF SPORTS INJURIES

- **2 Tutors**
  - **Essentials of the Knee Exam**
    - BOB SALLIS
    - Principal Clinical Teaching Fellow and Consultant in Sport and Exercise Medicine, The Institute of Sport, Exercise & Health UCL, UNITED KINGDOM
  - **Essentials of sports-related back pain in children**
    - COURTY KIPPS
    - Associate Professor of Pediatrics and Neonatology at the university of Thessaly, GRECE
**DAY 2: FRIDAY, 8 DECEMBER 2017 | MORNING SESSIONS**

### Section on RARE DISEASES

**4 Sessions Presentations - Q&A Session**
**Moderator:** UMA RAMASWAMI

- Transforming Rarity into Knowledge to Care for and Care Children with Rare Diseases
  - **FRANCESCO PALAU**
    Director of the Institute for Pediatric Rare Diseases (IPER) and Head of the Genodermatosis Center, Sant Joan de Déu Children’s Hospital, CSC Research Professor and Visiting Professor Pediatrics, University of Barcelona, SPAIN

- Emergency Management, Inherited Metabolic Disorders
  - **UMA RAMASWAMI**
    Consultant in Inherited Metabolic Disorders, Lysosomal Disorders Unit, Royal Free Hospital, London, UNITED KINGDOM

  - **GLENDA SOBEY**
    Head of Ehlers-Danlos Syndrome National Diagnostic Service, Sheffield Children’s Hospital, Sheffield, UNITED KINGDOM

- Vitamin-Dependent Encephalopathies - Cerebral Pore Folate Deficiency - An Update
  - **ROBERT STEINFIELD**
    Coordinator of the Centre - Clinical expert - Responsible for diagnostic of lysosomal and neurometabolic disorders Centre for rare pediatric-neurological diseases (Gefeni) University Medical Centre Göttingen, GERMANY

### Section on ORAL HEALTH

**3 Sessions Presentations - Q&A Session**
**Moderator:** RICHARD WIDMER

- Important “First Aid” for Oro-Facial Injuries in Children
  - **RICHARD WIDMER**
    Head of Department & Senior Staff Specialist, Paediatric Dentistry, Children’s Hospital at Westmead, Sydney Children’s Hospital Network, AUSTRALIA

- The Front End of Paediatrics: Oral Health and Nutrition
  - **COLIN NICHE**
    Consultant Paediatrician, Royal National Orthopaedic Hospitals, Imperial and University College, UNITED KINGDOM

- Oral Health and the Implications for Systemic Health
  - **RICHARD WIDMER**
    Head of Department & Senior Staff Specialist, Paediatric Dentistry, Children’s Hospital at Westmead, Sydney Children’s Hospital Network, AUSTRALIA

### Section on TRANSITION TO ADULT CARE

**3 Sessions Presentations - Q&A Session**
**Moderator:** JOAN-CARLES SURIS

- The MOCHA Project - Appraising the Differing Models of Child Health that are Used Across Europe
  - **M itch Blair**
    Professor of Paediatrics and Child Public Health; Principal Investigator, UNITED KINGDOM

- The Transition for Endocrine Complex Diseases
  - **LUSA DESANCTIS**
    University of Turin, ITALY

- Six Core Elements of Health Care Transition: A Quality Improvement Approach for Primary and Specialty Care
  - **PEGGY MCMANUS**
    Got Transition and The National Alliance to Advance Adolescent Health, USA

### Section on DERMATOLOGY

**2 Tutors Audience Response Session**

- **V р MOVEMENTS**
  - *Dermatological Case Studies*
  - *Dermatological Misinterpretation Videos*

### Section on DERMATOLOGY

**2 Tutors Audience Response Session**

- **INTERACTIVE PEDIATRIC DERMATOLOGY CASES**
  - **Test Yourself in Pediatric Dermatology. An Interactive Case-oriented Workshop - PART 1**
    - **DIRK VAN GYSEL**
      Head of the Department of Pediatrics, O.L Vrouw Hospital Aalst, Board member and former Treasurer of the ESPD, BELGIUM

- **Test Yourself in Pediatric Dermatology. An Interactive Case-oriented Workshop - PART 2**
  - **BARBARA KUNZ**
    Specialist Dermatologist, Direction of Paediatric dermatology, Dermatologikum Hamburg, Board member of the European Society of Pediatric Dermatology (ESPD), GERMANY

### Section on IMMUNISATION

**Focus Group Meeting**

- **2nd Life Course Immunisation Focus Group - Open to All Coffee and Lunch Served During the Meeting**

- **Co-Chairs:**
  - **TERENCE STEPHENSON**
    Nuffield Professor of Child Health, Institute of Child Health, UCL, Chair General Medical Council (UK) 2015-2018, Former Chair, UK Academy of Medical Royal Colleges 2012-2014, Past President, Royal College of Paediatrics and Child Health 2009-2012, UNITED KINGDOM
  - **DAVINE HOLT**
    Acting Chair Coalition for Life-course Immunisation, Former Vice President, Confederation of Meninigitis Organisations, FRANCE

### Section on POLICY

**10:15 - 14:15 | Wien Room**

- **FG1: HEALTH POLICY & ADVOCACY**
  - **Setting the Scene - Overview of Vaccines Policies, Changes Made and Steps Taken in the last 12 months**
  - **PLANNED ACTIONS Introducing the Coalition for Life Course Immunisation (CLI)**
  - **Working Group A on Advocacy**
    Improving the Advocacy of all Healthcare Professionals
  - **Working Group B on Vaccine Hesitancy**
    Overcoming Vaccine Hesitancy
  - **Working Group C on a Europe-wide Life Course Immunisation Strategy**
    A Europe-wide life course immunisation strategy
  - **Conclusions and Close**

### Section on TOPIC 3

**09:00 - 11:00 | Mancini 3B Hall**

- **AD3: ADOLESCENT MEDICINE**
  - **10:15 - 14:15 | Wien Room**
    - **FG1: HEALTH POLICY & ADVOCACY**
      - **Setting the Scene - Overview of Vaccines Policies, Changes Made and Steps Taken in the last 12 months**
      - **PLANNED ACTIONS Introducing the Coalition for Life Course Immunisation (CLI)**
      - **Working Group A on Advocacy**
        Improving the Advocacy of all Healthcare Professionals
      - **Working Group B on Vaccine Hesitancy**
        Overcoming Vaccine Hesitancy
      - **Working Group C on a Europe-wide Life Course Immunisation Strategy**
        A Europe-wide life course immunisation strategy
      - **Conclusions and Close**
### DAY 2: FRIDAY, 8 DECEMBER 2017

| 13:30 - 14:30 | PRACTICAL HOW TO... DEMONSTRATION SESSIONS (delivered by the Conference Faculty) 15 minutes each - Hall: Mancini 3A - Seating for 25 |
| 14:30 - 15:30 | PREBIOTICS & PROBIOTICS Presentation - Q&A Session |
| 15:10 - 15:50 | WS9: WORKSHOP CHILD & ADOLESCENT MENTAL HEALTH 1 Tutor Presentation - Q&A Session |
| 15:50 - 16:30 | WS10: WORKSHOP HEPATITIS C 1 Tutor Briefing with Q&A |

### AFTERNOON SESSIONS

#### LUNCH BREAK | POSTER VIEWINGS 2 (Lunchtime Viewing Groups & Guided Tours) - Hall: Mancini 3A - Group 1, 2, 3 - JOAN-CARLES SURIS, JUDIT VILLOSLODA, CHRISTINA AKRE

#### 13:30 - 14:30
- **Section on INFECTIOUS DISEASES**
  - 4 Sessions
  - Presentations - Q&A Session
  - Moderator: ANDREW RIORDAN
- **Should We Use Antiproteases Before Vaccination?**
  - ANDREW RIORDAN
  - Consultant in Paediatric Infectious Diseases and Immunology at Alder Hey Children’s Hospital, UNITED KINGDOM
- **The Impact of Routine National Immunization Programmes on Antibiotics Throughout Europe**
  - CATHERINE WEIL-OLIVIER
  - Honorary Professor of Pediatrics and Independent Expert, FRANCE
- **Have our expectations been attained by pneumococcal conjugate vaccines?**
  - GEORGE SYROGIANNOPoulos
  - Professor and Chairman of Paediatrics at the University of Thessaly, School of Medicine in Larissa, GREECE
- **European Attitudes to Vaccination and Meningitis - A Combined Approach**
  - ELENA MOYA
  - Co-ordinator for Europe and Africa, CEMAC
  - CATHERINE WEIL-OLIVIER
  - Honorary Professor of Pediatrics and Independent Expert, FRANCE

#### 14:30 - 15:30
- **PART OF THE SPOT THE EARLY SIGNS WEBINAR SERIES**
  - 4 Tutors
  - Moderator: UMA RAMASWAMI
  - **SES - Metabolic Disorders Training 1**
    - **Gaucher Disease: Spot the Early Signs in the Pediatric Population**
      - GIOVANNI CIONA
      - Regional Coordinating Centre for Rare Diseases, Azienda Ospedaliero-Universitaria “S.Maria della Misericordia”, Udine, ITALY
  - **SES - Metabolic Disorders Training 2**
    - **Fabry Disease - Do We Need Better Biomarkers in Lysosomal Storage Disorders?**
      - PATRICIO AGUIAR
      - Great Ormond Street Hospital, UNITED KINGDOM
  - **SES - Metabolic Disorders Training 3**
    - **Spotting the Signs of Lysosomal Storage Diseases in Order to Make an Early Diagnosis**
      - FRANCISCO EYSKENS, Professor, CEMAC
      - University Hospitals of Leuven, BELGIUM
  - **SES - Metabolic Disorders Training 4**
    - **Spot the Early Signs of Mucopolysaccharidoses - One Disease with Many Faces**
      - SUSANNE KIRCHER
      - Institute for Medical Genetics and Metabolism, University Hospital Mannheim, GERMANY

#### 15:10 - 15:50
- **WS9: WORKSHOP CHILD & ADOLESCENT MENTAL HEALTH**
  - 1 Tutor
  - **Early Intervention for Eating Disorders**
  - DASHA NICHOLLS
  - Consultant Child and Adolescent Psychiatrist, Great Ormond Street Hospital, UNITED KINGDOM

#### 15:50 - 16:30
- **WS10: WORKSHOP HEPATITIS C**
  - 1 Tutor
  - **Treatment of Hepatitis C Virus Infection in Children**
  - GIUSEPPE INDOLFI
  - Consultant Paediatric and Liver Unit Azienda Ospedaliero-Universitaria Meyer, Florence, ITALY
### Scientific Programme

**DAY 2: FRIDAY, 8 DECEMBER 2017**

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Session</th>
<th>Details</th>
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<tbody>
<tr>
<td>17:00-17:45</td>
<td>Mancini 1 Hall</td>
<td>BR2: BRIEFING</td>
<td><strong>RESPIRATORY</strong>&lt;br&gt; Presentation - Q&amp;A Session&lt;br&gt;• Better Management of Paediatric Airway Disease: Lessons from the Progress in Cystic Fibrosis&lt;br&gt;Andrew Bush&lt;br&gt;Professor of Paediatrics and Head of Section (Paediatrics), Imperial College, Professor of Paediatric Respiratory, National Heart and Lung Institute, UNITED KINGDOM</td>
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<tr>
<td>17:45-18:30</td>
<td>Mancini 1 Hall</td>
<td>BR3: BRIEFING</td>
<td><strong>PRIMARY IMMUNODEFICIENCIES</strong>&lt;br&gt; Presentation - Q&amp;A Session&lt;br&gt;• How to Recognise Primary Immunodeficiencies&lt;br&gt;Jutte van der Werff ten Bosch&lt;br&gt;Professor of Pediatric Hematology, Oncology and Immunology, Paola Children Hospital, Antwerp, BELGIUM</td>
</tr>
<tr>
<td>17:00-18:30</td>
<td>Mancini 3B Hall</td>
<td>PD5: PROFESSIONAL DEVELOPMENT</td>
<td><strong>PRESENTATION SKILLS FOR HEALTHCARE PROFESSIONALS</strong>&lt;br&gt;2 Tutors Interactive Workshop&lt;br&gt;Alison Johns&lt;br&gt;Chief Executive of the Leadership Foundation for Higher Education, UNITED KINGDOM&lt;br&gt;Doug Parkin&lt;br&gt;Programme Director, Leadership Foundation for Higher Education, UNITED KINGDOM</td>
</tr>
<tr>
<td>17:00-18:00</td>
<td>Wien Room</td>
<td>SES2: SPOT THE EARLY SIGNS</td>
<td><strong>SPOT THE EARLY SIGNS</strong>&lt;br&gt;1 Tutor Training Course&lt;br&gt;Moderator: UMA Ramaswami&lt;br&gt;Institute of Social and Preventive Medicine and Department of Pediatrics Lausanne University Hospital, SWITZERLAND</td>
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<tr>
<td>18:30</td>
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<td>CLOSE OF DAY 2</td>
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**Section on ENDOCRINOLOGY**

- **3 Sessions**<br>Presentations - Q&A Session<br>**Moderator:** TIM CHEETHAM<br>• Cranial Diabetes Insipidus – Lessons Learned<br>TIM CHEETHAM<br>University Reader and Consultant Paediatric Endocrinologist, Newcastle University, Newcastle upon Tyne Hospitals NHS Foundation Trust, UNITED KINGDOM<br>• Abnormal Puberty as a First Symptom of Disorders/Differences of Sex Development (DSD)<br>Maria Szarras-Czapnik<br>Consultant Endocrinologist, The Children’s Memorial Health Institute, Warsaw, POLAND<br>• Side Effects of Glucocorticoids with an Emphasis on Topical Administration<br>Alan D. Rogol<br>Professor Emeritus, Pediatrics and Pharmacology, University of Virginia, USA
### DAY 3: SATURDAY, 9 DECEMBER 2017  |  MORNING SESSIONS

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30 - 09:30</td>
<td>Mancini 2 Hall</td>
<td><strong>COFFEE START</strong> (Foyer &amp; Mancini 3A)</td>
</tr>
<tr>
<td>09:30-11:30</td>
<td>Mancini 3B Hall</td>
<td><strong>MC1: MASTERCLASS</strong></td>
</tr>
<tr>
<td>09:00-11:30</td>
<td>Mancini 1 Hall</td>
<td><strong>PE12: PEDIATRICS</strong> Also available through EiP Online</td>
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<tr>
<td>09:30-11:30</td>
<td>Mancini 2 Hall</td>
<td><strong>AD4: ADOLESCENT MEDICINE</strong></td>
</tr>
<tr>
<td>09:30-11:00</td>
<td>Wien Room</td>
<td><strong>PD6: PROFESSIONAL DEVELOPMENT</strong></td>
</tr>
<tr>
<td>09:30-11:30</td>
<td>Turin Room</td>
<td><strong>PD7: PROFESSIONAL DEVELOPMENT</strong></td>
</tr>
<tr>
<td>09:00-11:30</td>
<td>Turin Room</td>
<td><strong>LEADING CHANGE IN A COMPLEX ENVIRONMENT</strong></td>
</tr>
</tbody>
</table>
| 11:30-12:00 | Mancini 2 Hall | **PLENARY CLOSING LECTURE**  
*Five Papers Which Changed My Practice*  
TERENCE STEPHENSON  
Nuffield Professor of Child Health, Institute of Child Health, UCL, Chair General Medical Council (UK) 2015-2018, Former Chair, UK Academy of Medical Royal Colleges 2012-2014, Past President, Royal College of Paediatrics and Child Health 2009-2012, UNITED KINGDOM |
| 12:00-12:30 | Mancini 2 Hall | **CONFERENCE CLOSING REMARKS**  
CONFERENCE CHAIRS: TERENCE STEPHENSON, JOAN-CARLES SURIS, JO INCHLEY |
CONFERENCE GENERAL INFORMATION

Official Language
The official language of the Conference is English.

Badges & Conference Material
Name Badges and Conference Material will be provided on-site to all registered delegates at the Conference Registration Desks, from 07 December to 09 December. Badges are to be worn at all times, for reasons of security and identification. You will not be permitted to enter any room without your badge.

Abstracts book part of the final programme
Abstracts of oral and poster presentations will be distributed to all registered delegates. Abstracts will also be published in the online library accessible through the EIP Institute’s website (www.ineip.org). All accepted contributions for the 9th Excellence in Pediatrics Conference will be included in the printed publications of the EIP 2017 Final Conference Program. The abstract book (including all accepted abstracts) will be published by Cogent Medicine and made available on the Cogent Medicine website as well as on the EIP Conference website and EIP Institute websites. In addition, all abstracts will be uploaded and available through the Institute’s online library. Cogent Medicine is a multidisciplinary open access journal, publishing experimental, translational & clinical approaches in all areas of the biomedical sciences and clinical research and practice. The journal is the official publishing partner of the 9th Edition of the EIP Conference.

Certificate of Attendance
All registered delegates are entitled to a Certificate of Attendance. Certificates can be collected from the Conference Secretariat from the afternoon of 8 December. The certificates will be provided on site upon completion of a Conference feedback form.

Programme Changes
Due to circumstances beyond the control of the Conference Organisers, last minute changes to the programme may be unavoidable. All information included in this programme is accurate as at the day of printing, 17 November 2017.

Information for Speakers

Speaker Ready Room
The Speakers’ Ready Room (SRR) is the Laura Mancini Room and is located on the Ground Floor of the hotel to the left of the lobby after entering the venue. It will be operating from 20:00 - 21:30 on the 6th December, from 08:00 to 18:00 on the 7th December and 8th December. The SRR will not be operating on the 9th December and speakers presenting on the 9th should either upload their presentation in the SRR on the 6th/7th or 8th or bring it to the room they are presenting in on the 9th.

Speakers are kindly requested to hand in their presentation (USB-key, CD-ROM, DVD) at least two (2) hours before their scheduled presentation time. If your presentation is scheduled early in the morning, you are kindly requested to hand in your presentation at the Speakers’ Ready Room the day before. All versions of MS PowerPoint are accepted, including Mac. If you are using embedded video clips in your presentation, please remember to submit video files separately. The following audiovisual equipment will be available for all presenters:

- PC
- Data video projector (PowerPoint presentations)
- Laser Pointer
- Microphones.
ORAL AND POSTER PRESENTERS

Oral Presentations

If you are presenting an oral podium presentation, you are kindly requested to observe the following points:

• Your presentation should last a maximum of 8 minutes.

• Speakers are kindly requested to hand in their presentation (USB-key) at least one (1) hour before their scheduled presentation time.

• All versions of MS PowerPoint are accepted, including Mac. If you are using embedded video clips in your presentation, please remember to submit video files separately. The following audiovisual equipment will be available for all presenters: PC, Data video projector (PowerPoint presentations), Laser Pointer, Microphones

• Please declare any conflicts of interest at the beginning of your presentation.

• Please speak slowly and clearly. English is the working language of the Conference, but not necessarily the native language of the delegates.

Poster Presentations

Two poster-viewing sessions are included in the conference program, one for each of the first two days of the conference.

1. If you are included in the 1st Poster Viewing Session, please post on the first day of the conference from 09.00 - 11.00 and remove / dismantle by the end of the day from 17.00 - 18.00

2. If you are included in the 2nd Poster Viewing Session, please post on the second day of the conference from 09.00 - 11.00 and remove / dismantle by the end of the day from 17.00 - 18.00

If you are presenting a poster, you are kindly requested to observe the following points:

1. English is the official language of the Conference.

2. Each presenting author should be present on the time and date of his/her presentation in the poster area.

3. You are expected to be standing in front of your poster for the duration of the poster session.

4. During the poster session, a moderator will lead Poster Walk Presentations around all of the posters at that session.

5. When the moderator visits your poster, you will be given 4 minutes to present the key points of your poster.

For Posters to be exhibited, please note the following:

1. The necessary material for displaying the posters will be available in the poster area.

2. Poster numbers will be displayed at the top of the panels.

3. The corresponding poster panel number for each poster presented has been provided by the Conference Organisers, along with abstract presentation guidelines.

4. Mounting and dismantling of posters will be done as specified in the information already sent to poster presenters by the Conference Organisers.

5. Please note that posters should be a maximum of 150cm high x120cm wide (portrait layout).

6. As a courtesy to other presenters, participants are kindly requested not to move or remove poster numbers or change the order of the assigned poster boards.

7. It is essential that presenters clear their poster board promptly and within the scheduled time. Material left on a poster board after the removal deadline will be discarded.

8. The Conference Organisers are not responsible for materials left behind or for any stolen or damaged materials.
ATTENDEE SERVICES

All services are open daily and located at the Secretariat area in the entrance of the Venue.

Help at the Conference

AT THE SECRETARIAT: Please contact the organiser’s staff at the registration area during these operating times:

- Thursday 7 December: 08:00 - 19:00
- Friday 8 December: 08:00 - 19:00
- Saturday 9 December: 08:00 - 13:00

IN PERSON: Find the friendly staff wearing the EIP’s badge in the halls and the exhibition area or visit the desks in the registration area located on the Ground Floor.

BY EMAIL: Send an email to secretariat@ineip.org

In the event of an Emergency

For all emergencies at the Austria Trend Hotel Savoyen - fire, police and medical - contact the Conference Secretariat or any Co-ordinator of the Venue.

Liability & Insurance

Delegates are advised to arrange health and accident insurance before travelling to the Conference. The Conference Organisers cannot accept liability for personal injury or loss/ damage to property and belongings of delegates during the Conference or their stay in Vienna. Please refrain from leaving your personal belongings unattended in any Conference area.

Mobile Phones

Delegates are kindly requested to switch off their mobile phones during the Conference sessions.

Internet Access

There is free Wi-Fi access in all areas of the Austria Trend Hotel Savoyen. Please log on to the Hotel’s guest network.

Secretariat Operating Hours

The Secretariat registration desks will be open for the duration of the Conference, please note opening times below:

- Thursday 7 December: 08:00 - 19:00
- Friday 8 December: 08:00 - 19:00
- Saturday 9 December: 08:00 - 13:00

Photos, Video recordings

There will be an authorised photographer appointed by the Conference Organisers who will record all aspects of the event. These photographs will be uploaded on the social media pages of the EIP Institute daily during the Conference.

Most Sessions will also be video recorded, which will be uploaded to the EIP Institute’s website after the Conference and available for viewing both by those who could not attend the Conference and also those who attended and wish to review any Session.

There will also be opportunities to give interviews to the dedicated team at the Conference, in order to give your own testimonial of your Conference experience. Videos of these interviews will also be uploaded on EIP Institute’s website and social media pages after the close of the Conference.
Social Media

Like Us: https://www.facebook.com/EIPinstitute/
Follow Us: https://twitter.com/EIP_Institute
Link with Us: https://www.linkedin.com/groups/4440556

Lunches, Coffee and Social Events

Offering a break from intensive learning during the programme Sessions, the coffee and lunch breaks also provide an excellent opportunity for meeting and networking with faculty members and peers from all over the world.

Lunch Breaks:

Thursday 7 December, 13:00 - 14:00 in Foyer and Mancini 3A
Friday 8 December, 13:30 - 14:30 in Foyer and Mancini 3A

Coffee Starts and Coffee Breaks:

Thursday 7 December, 08.30 - 09:30 in the Foyer and Hall: Mancini 3A
Thursday 7 December, 16:00 - 16:30 in the Foyer and Hall: Mancini 3A
Friday 8 December, 08:00 - 09:00 in the Foyer and Hall: Mancini 3A
Friday 8 December, 11:00 - 11:30 in the Foyer and Hall: Mancini 3A
Friday 8 December, 16:30 - 17:00 in the Foyer and Hall: Mancini 3A
Saturday 9 December, 08:30 - 09:30 in the Foyer and Hall: Mancini 3A

Welcome reception:

Thursday 7 December, 18:30 - 19:15 in the Foyer (Outside Mancini Halls 1 & 2)
The Venue

Hotel Savoyen: Located in the heart of the embassy district, close to the Belvedere Palace and Botanical Gardens.

A conference at the Hotel Savoyen Vienna is bound to be unforgettable – just like its namesake, Prince Eugene of Savoy. The hotel effortlessly combines old and new, occupying a revitalised building that was once home to the imperial Austrian state and court print works. From the outside, the heritage-protected traditional Viennese facade casts its spell on visitors, while indoors light, modern architecture, the highest levels of comfort and contemporary facilities await. Function rooms have been named after key milestones in the life of Prince Eugene of Savoy. An impressive mixture of classic and modernity defines the design of the Austria Trend Hotel Savoyen Vienna. Surrounded by historical buildings the Austria Trend Hotel Savoyen Vienna constitutes the perfect starting point for excursions around Vienna and serves as an upscale backdrop for business meetings.

Austria Trend Hotel Savoyen
Rennweg 16, 1030 Wien, Austria

Visit the venue’s website: https://www.austria-trend.at/en/hotels/savoyen

Underground

Nearest stations:
The nearest station to the venue is Wien Rennweg Bahnhof. From the station walk south on Rechte Bahngasse towards Rennweg. After 25m turn right onto Rennweg and continue for 36m. Turn left towards Rennweg and right onto Rennweg and the Venue is on your left.
Surrounded by some of Vienna’s best-known sights, you can explore the nearby Belvedere Palace and its Botanical Garden with banana palms and lemon trees growing in the picturesque pavilion guarding its entrance. You will feel yourself start to blossom as you enjoy a leisurely stroll among countless varieties of exotic flora in the heart of Vienna. In fact, it will seem for all the world like a holiday within a holiday. Admission to the Botanical Garden is completely free of charge.

Like the Belvedere, the famous 21er Haus planned by the visionary architect Karl Schwanzer is just a stone’s throw away from the hotel. Built in 1958 as the Austrian pavilion for Expo 58 in Brussels, it was reconstructed in Vienna in 1962 and has provided a space for contemporary art to thrive ever since.

With excellent public transport links on our doorstep, Vienna’s historic city centre is only a matter of minutes away.

Here you will find the Ringstrasse Boulevard Kärntnerstrasse and Mariahilfer shopping streets. Vienna’s new main station, the Hauptbahnhof is just a couple of minutes’ walk from the hotel. If you want to unwind after a busy day or experience the capital’s nightlife, two urban hotspots – Karlsplatz and the Museums Quartier are right around the corner from the hotel. Contemporary outdoor spaces set the scene for some serious people watching. There are always new galleries, bars and clubs to discover in this part of town.

Useful Links:

- Airport to City Centre (options)

- Vienna Public Transport
  https://www.wien.gv.at/english/transportation-urbanplanning/public-transport/

- Getting to and from Airport using various means
  https://www.rome2rio.com/s/Vienna-Airport-VIE/Austria-Trend-Hotel-Savoyen-Vienna

- Museums and Exhibitions
  https://www.wien.info/en/sightseeing/museums-exhibitions

- Need Assistance in Vienna/Useful Numbers:
  http://www.vienna4u.at/assistance.html

- Christmas Markets and Opening Hours:

- Christmas in Vienna – Shops, Choirs,

- Events in Vienna
  https://events.wien.info/en/
The World Health Organisation (WHO) designated the University of St Andrews’ School of Medicine as its Collaborating Centre for International Child and Adolescent Health Policy (WHO CC) in October 2013. This prestigious appointment endorses the international research and policy-influencing work of the School’s leading researchers in the field of population and behavioural health sciences. The WHO CC has several strands of work related to social determinants of health and prevention of health inequalities, reduction of youth violence, and prevention of risk behaviours such as drug use. Additionally, it seeks to use research to inform policy and practice aimed at improving young people’s health, well-being, health behaviours, and supportive social contexts. In this regard, the WHO CC works closely with key stakeholders including the Health Behaviour in School-Aged Children (HBSC) study to increase its policy impact and knowledge exchange efforts.

The HBSC is an international alliance of researchers that collaborate on the WHO collaborative cross-national survey of school students, Health Behaviour in School-aged Children (HBSC) study to increase its policy impact and knowledge exchange efforts.

This conference is the third of its kind to bring together the Health Behaviour in School-aged Children study, the Excellence in Pediatrics Institute and the WHO Collaborating Centre for International Child and Adolescent Health Policy to build knowledge, foster dialogue and progress innovation in research and practice within the field of children and adolescent health. The HBSC study provides secular trends across countries for a wide variety of key measures within adolescent health. Pediatricians are in a unique position to critically examine this data, contextualise it, and use it to support and promote healthy behaviours in the young people they care for. The WHO CC advocates on a number of adolescent health issues and policy recommendations aimed at national and international bodies. All in all, it will be an excellent opportunity to make research and data relevant to practitioners, as well as to better familiarise researchers with the challenges and opportunities of pediatric clinical practice. This event will provide a unique collaborative opportunity for key players in the adolescent health field to access and discuss international research findings on adolescent health, to consider current challenges and opportunities within pediatric clinical practice, and to find solutions to some of the most pressing issues facing young people today.
The Leadership Foundation is a membership organisation that delivers leadership development and consultancy advice to higher education institutions in the UK and around the world. The focus of the Leadership Foundation’s work is to improve the management and leadership skills of existing and future leaders of higher education. The services provided include consultancy, leadership development programmes and events, including a major series of events for governors. This work is supported by a highly regarded research and development programme that underpins the leadership development programmes and stimulates innovation.

The Leadership Foundation has a small team of experienced leadership and organisational development professionals drawn from higher education, other parts of the public sector, and also from the private sector. Much of the Leadership Foundation’s work is delivered in partnership with the higher education sector and other partner organisations. www.lfhe.ac.uk

The Confederation of Meningitis Organisations (CoMO), is an international not-for-profit member organisation working to reduce the incidence and impact of meningitis and septicaemia worldwide. CoMO was founded in September 2004 at the World Conference of Meningitis Organisations when delegates from across the globe agreed to work together in the fight against meningitis. Bringing people together is an essential part of what we do. CoMO brings together patient groups, health professionals and organisations, meningitis survivors and families from more than 25 countries to help prevent meningitis worldwide.

Our member organisations are charities and individuals that share the aims of raising awareness, educating, supporting families and advocating for the use of vaccines to prevent meningitis. We connect our members, providing resources to a strong global network so that they can share their experiences to strengthen one another and to deliver their objectives in the communities that they serve. All year round we strive to raise awareness of the signs and symptoms of meningitis and septicaemia, how to prevent its occurrence by vaccination, and the devastating effects it can have on a person and their loved ones. World Meningitis Day on April 24 each year is one of our most important activities and when we and our members work to bring meningitis to the top of the agenda. There is much work to be done to ensure vaccines to prevent meningitis and septicaemia are freely available worldwide. CoMO advocates for these vaccines to be available and supports its members in their efforts to do the same.

Along with World Meningitis Day, CoMO is involved in a number of other projects. In April 2015, CoMO launched the Life Course Immunisation initiative, which aims to increase awareness of vaccine inequalities and the need for immunisation throughout life by working with vaccine advocates, other civil society organisations, healthcare professionals and policy makers.

If you are interested in learning more about the work we do, please contact editor@comomeningitis.org.
Wisepress Medical Bookshop
15 Lyon Road, Merton
London, SW19 2RL, UK
Contact: Ben Powell, Bookshop Manager
Phone: +44 20 8715 1812
Fax: +44 20 8715 1722
bookshop@wisepress.com
www.wisepress.com

Wisepress.com, Europe’s leading conference bookseller, has a complete range of books and journals relevant to the themes of the meeting. Books can be purchased at the stand or, if you would rather not carry them, posted to you – Wisepress will deliver worldwide. In addition to attending 200 conferences per year, Wisepress has a comprehensive medical and scientific bookshop online with great offers.

A home for scientifically sound, fully open access and peer-reviewed health research, Cogent Medicine offers authors a fast and affordable option for the publication of their work. The journal publishes experimental, translational and clinical approaches across all areas of biomedical sciences and clinical research and practice.

Cogent Medicine hosts supporting supplementary material and data files via the online repository figshare and article level metrics are available on all articles and offer a complete overview of how people are engaging with research. All articles published in the journal are freely available to access online.

As part of Taylor & Francis Group we are building on solid foundations and maintain the traditional values and high standards of an organization with more than 200 years of experience serving the research community.
CONFERENCE PROGRAMME

SCIENTIFIC PROGRAMME
AND DAILY SCHEDULE
CONNECT & LEARN WITH EIP THROUGHOUT THE YEAR
INTRODUCING FREE-TO-VIEW WEBINARS FROM EIP

Hosted and Promoted Every Month to 45,000
Pediatric Healthcare Professionals Across the Globe.

Taking the education and learning outside the conference halls.
Update your skills and Knowledge from anywhere at anytime.
Register for free for upcoming webinars throughout 2018.
Select the webinar that are of interest to you.

• All online sessions are led by one of EiP’s expert speakers covering the latest developments and practical advice in pediatrics.
• Plus, as a 2017 Conference attendee you are given free access to all EIP Online recorded sessions from the Conference from Vienna, The EIP Spot the Early Signs Webinars, The Influenza Knowledge Transfer Series on Seasonal Flu Vaccines and Past the Conference Presentation Library.

http://eip-pediatrics-community.ineip.org/upcoming_webinars

www.ineip.org
CONTINUING MEDICAL EDUCATION (CME) AND SESSION EVALUATIONS

17 amount conference credits

The Excellence in Pediatrics 2017 Conference is accredited by the European Accreditation Council for Continuing Medical Education (EACCME) to provide CME activity for medical specialists. The EACCME is an institution of the European Union of Medical Specialists (UEMS), www.uems.net.

The exact designated hours of European external CME credits will be mentioned on your attendance certificate. Each medical specialist should claim only those hours of credit that he/she actually spent in the educational activity.

Through an agreement between the European Union of Medical Specialists and the American Medical Association, physicians may convert EACCME credits to an equivalent number of AMA PRA Category 1 Credits™. Information on the process to convert EACCME credit to AMA credit can be found at www.ama-assn.org/go/internationalcme.

Session Evaluations

Please complete the Evaluation Forms for every Session that you may attend. EIP’s staff will deliver them at the entrance of each hall at the beginning of each programme Section and will collect them at the exit when you are leaving the hall.

The feedback you provide enhances the ability of our Steering Committee and organisation staff to meet attendees’ educational needs.

Session Types

Plenary Keynote Sessions
Single-speaker keynote lectures by leading experts, chosen to inspire as well as educate. Topics will be of broad interest to all who care for children and present state of the art science knowledge related to clinical practice and public health.

Up-to-Date Sessions
Designed to provide clinical updates and practical tips on specific topics that will improve the care general pediatricians deliver in their everyday practice.

Hands-on Workshops and Classes
Interactive sessions offering the opportunity to learn and practice specific skills. These sessions include 1 or 2 expert facilitators who will use a variety of didactic formats to teach these skills. Participants can expect to leave the session with practical skills that they can apply in their everyday practice.

Audience Response Sessions

The session format is an effective way to enable presentation and discussion on opposing views about a topic. Audience will be able to interact with the speakers and participate in the discussion.

Health Policy Focus Groups

The EiP Policy Focus Groups are meetings designed to examine current child health policies in sub-specialties of pediatrics and are tasked with identifying barriers that need to be overcome to improve health outcomes. The concept being that by offering evidence-based recommendations and filling education and awareness gaps of healthcare professionals EiP are able to overcome specific barriers.

In 2017 there will be the 2nd Life Course Immunisation Focus Group meeting - Open to All - Coffee and lunch will be served during the meeting - Friday 8th December from 10:15-14:15 in the Wien Room. This is an open meeting and we would encourage you to join to help improve vaccinations rates across Europe.
08:00
REGISTRATION DESK OPENING

08:30-09:30
COFFEE START (Foyer and Hall: Mancini 3A)

09:30-10:45
OPENING CEREMONY & PLENARY ADDRESSES

Conference Chairs’ Welcome:

TERENCE STEPHENSON
Nuffield Professor of Child Health, Institute of Child Health, UCL, Chair General Medical Council (UK) 2015-2018, Former Chair, UK Academy of Medical Royal Colleges 2012-2014, Past President, Royal College of Paediatrics and Child Health 2009-2012, United Kingdom

JO INCHLEY
HBSC International Coordinator, University of St Andrews School of Medicine, United Kingdom

JOAN-CARLES SURIS
Institute of Social and Preventive Medicine and Department of Pediatrics Lausanne University Hospital, Switzerland

2017 Plenary Addresses from the Co-Chairs

Obesity and Physical Activity: The Next Generation

JO INCHLEY
HBSC International Coordinator, University of St Andrews School of Medicine, United Kingdom

Learning Objectives
• Review global trends in child and adolescent obesity
• Examine key risk factors for overweight and obesity and how these have changed in recent years
• Consider the evidence for effective approaches to obesity prevention in children and adolescents

Sex Drugs and a Bit of Acne: Today’s Adolescents

JOAN-CARLES SURIS
Institute of Social and Preventive Medicine and Department of Pediatrics Lausanne University Hospital, Switzerland

Learning Objectives
• Recognize the changes in adolescent health priorities over the last 30 years
• Identify the current challenges in adolescent health
• Acknowledge the importance of integrating youth’s opinions in policy making
### DAY 1

#### THURSDAY, 07 DECEMBER 2017 | MORNING SESSIONS

#### PEDIATRICS

| 11:00-13:00 | Mancini 2 Hall | PE1: Section on GENERAL PEDIATRICS PART 1
| Moderator: ANDREW RIORDAN | Also available through EIP Online |

| Presentation 1 | General Practice - Febrile Children in Primary Care - The Latest Practical Advice for Frontline Paediatricians |
| GIJS ELSHOUT, The Netherlands | Learning Objectives: |
| General Practitioner, Assistant Professor, Department of General Practice, Erasmus MC University Medical Center Rotterdam | • Gaining knowledge about the epidemiology of the various causes of fever in children |
| | • Providing tools to adequately assess a febrile child |
| | • Using safety-netting effectively in febrile children |

| Presentation 2 | Pyrexia of Unknown Origin |
| ANDREW RIORDAN, United Kingdom | Learning Objectives: |
| Consultant in Paediatric Infectious Diseases and Immunology at Alder Hey Children’s Hospital | • Know the difference between PUO and “Fever without source” |
| | • Know the common causes of PUO in children |
| | • Know which test may help diagnose children with PUO |

| Presentation 3 | Functional Abdominal Pain |
| MARK BEATTIE, United Kingdom | Learning Objectives: |
| Professor, Consultant Paediatric Gastroenterologist, University Hospital Southampton | • Understand the epidemiology, classification and aetiology of recurrent Abdominal Pain |
| | • Review the biophyschosocial model of functional pain - including: risk factors, evidence based management and outcome |
| | • Consider a practical approach in the child with recurrent abdominal pain |

#### ADOLESCENT MEDICINE

| 11:00-13:00 | Mancini 1 Hall | AD1: Section on ADOLESCENT WELLBEING
| Moderator: CURT HAGQUIST |

| Presentation 1 | Teen Health Week: Advocating for Young People as a Clinician |
| LAURA OFFUTT, USA | Learning Objectives: |
| Founder and Creator Teen Health Week | • Learn about Teen Health Week: history, what it is, and why we have Global Teen Health Week |
| | • Discuss how Teen Health Week can be an opportunity for youth health education and engagement, as well as advocacy for youth health issues |
| | • Consider ways to participate and promote Teen Health Week as a means to improve youth health in your communities |

| Presentation 2 | Adolescents Well-being in Romania: Linking Data and Practice |
| ADRIANA BABAN, Romania | Learning Objectives: |
| Principal Investigator HBSC, Department of Psychology, Babes-Bolyai University | • Understand the social context of adolescents’ health in Romania |
| | • Outline the impact of adversities on adolescents well-being |
| | • Highlight preventive interventions that counteract risk factors |

| Presentation 3 | Consequences for Everyday Life of Mental Health Problems Among Adolescents |
| CURT HAGQUIST, Sweden | Learning Objectives: |
| Professor of Public Health, Director and founder of the Centre for Research on Child and Adolescent Mental Health (CFBUPH) at Karlstad University | • Understand the relationship between adolescents’ self-reported mental health problems and perceived consequences |
| | • Elucidate gender differences in impacts of mental health problems among adolescents |
| | • Consider how contextual conditions affect the impacts of adolescents’ mental health problems |
### DAY 1  
**THURSDAY, 07 DECEMBER 2017 | MORNING SESSIONS**

#### NEONATOLOGY & EARLY LIFE PEDIATRICS

**NE1: Section on NEONATOLOGY**  
**Moderator: ROY PHILIP**

| Presentation 1> |  
| --- | --- |
| **Neonatal Outbreaks: Approaching with Evidence and Effectiveness** |  
| **ROY K. PHILIP**, Ireland  
Consultant Paediatrician and Neonatologist, Adjunct Clinical Professor of Neonatology, University Maternity Hospital Limerick & GEMS, University of Limerick | **Learning Objectives:**  
• Vigilance, surveillance, containment and control in relation an outbreak.  
• Effective and evidence based interventions and resource allocations.  
• Learning from the event and already reported outbreaks. |

| Presentation 2> |  
| --- | --- |
| **Diagnosing Neonatal Respiratory Distress Syndrome (RDS): An Update for Pediatricians** |  
| **FRANCESCO RAIMONDI**, Italy  
Chief, Division of Neonatology, Section of Pediatrics Dept of Translational Medical Sciences, Università «Federico II» di Napoli | **Learning Objectives:**  
• Understand the epidemiology and the clinical relevance of neonatal RDS  
• Review the topics in neonatal RDS that still can represent a problem in daily practice  
• Consider old and new RDS diagnostic strategies |

| Presentation 3> |  
| --- | --- |
| **Integrative Prenatal Diagnostic and Postnatal Management for Congenital Malformation - Vesico-ureteral Reflux** |  
| **SEBASTIAN IONESCU**, Romania  
Professor of Pediatric Surgery, Clinica de Chirurgie Pediatrică, Spitalul Clinic de Urgență pentru Copii Maria Sklodowska Curie | **Learning Objectives:**  
• An understanding of Vesico Ureteric Reflux (VUR) - an anatomic and functional disorder that must be diagnosed as soon as possible after birth  
• Reviewing how VUR present in 3 main distinct groups: hydronephrosis, UTI and advanced reflux nephropathy  
• An overview of the standard imaging tests to use and current treatment options  
• What must be done to prevent the kidney damage and renal failure |

#### INFOCUS SESSION

**INF1: INFLUENCE OF MICROBIOTA ON ASPECTS OF CHILD HEALTH**  
**Chair: SIMON KROLL**

| Presentation 1> |  
| --- | --- |
| **Part A - Gastrointestinal Microbiota in Neonates and Necrotizing Enterocolitis** |  
| **SIMON KROLL**, United Kingdom  
Professor of Paediatrics and Molecular Infectious Diseases, Imperial College and St Mary's Hospital | **Learning Objectives:**  
• Understand the normal development of the gastrointestinal microbiota after birth  
• Understand the impact that the gastrointestinal microbiota can have in modulating the health of premature infants  
• Appreciate the place that probiotics may have in reducing the risk of necrotizing enterocolitis |

| Presentation 2> |  
| --- | --- |
| **Part B - Evolution of Respiratory Tract Microbiota and its Relation to Respiratory Health in Children** |  
| **DEBBY BOGAERT**, United Kingdom  
Professor of Paediatric Infectious Diseases and Honorary Consultant in paediatric infectious diseases, Center for Inflammation Research, University of Edinburgh | **Learning Objectives:**  
• Understand basic aspects of human microbiome function in paediatric health  
• Consider broader context of microbial influences on respiratory health and disease, including those of residential commensals  
• Consider complex microbial interactions instead of one pathogen one disease concept as basis for respiratory infection |

| Presentation 3> |  
| --- | --- |
| **Part C - Modulating the Gut Microbiome in Early Life – Impact on Future Health?** |  
| **STEPHEN ALLEN**, United Kingdom  
Professor of Paediatrics and Honorary Consultant Paediatrician, Liverpool School of Tropical Medicine | **Learning Objectives:**  
• Understand the progression of the gut microbiome in healthy infants and young children  
• Review factors that affect microbiome development  
• Consider what interventions are available to modify the developing microbiome and have evidence of health benefits |

#### OP1: ORAL PRESENTATIONS

**Moderator: JUDIT VILLOSLADA**

| Session | Room |  
| --- | --- | --- |
| **11:00-13:00** | **Mancini 3B Hall** | **Also available through EIP Online** |
| **INF1: INFLUENCE OF MICROBIOTA ON ASPECTS OF CHILD HEALTH** |  
**Chair: SIMON KROLL** |  
**Presentation 1>**  
**Part A - Gastrointestinal Microbiota in Neonates and Necrotizing Enterocolitis**  
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**Part B - Evolution of Respiratory Tract Microbiota and its Relation to Respiratory Health in Children**  
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| **Presentation 3>**  
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• Review factors that affect microbiome development  
• Consider what interventions are available to modify the developing microbiome and have evidence of health benefits |

| **11:00-13:00** | **Turin Room** |  
| --- | --- | --- |
| **OP1: ORAL PRESENTATIONS** |  
**Moderator: JUDIT VILLOSLADA** |  
**Also available through EIP Online** |
### DAY 1  |  THURSDAY, 07 DECEMBER 2017  |  AFTERNOON SESSIONS

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<tr>
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<th>Session</th>
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<tbody>
<tr>
<td>13:00-14:00</td>
<td>LUNCH BREAK (Mancini 3A and Foyer)</td>
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<tr>
<td>13:00-14:00</td>
<td>POSTER VIEWINGS (Lunchtime Viewing Groups &amp; Guided Tours) - Hall: Mancini 3A - Group 1, 2, 3 - JOAN-CARLES SURIS, JUDIT VILLOSLADA, CHRISTINA AKRE</td>
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<tr>
<td>14:00-16:00</td>
<td>PEDIATRICS</td>
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<tr>
<td></td>
<td>PE2: Section on ENDOCRINOLOGY &amp; GROWTH</td>
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<td>Moderator: TIM CHEETHAM</td>
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<td>Mancini 2 Hall</td>
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<td>Also available through EIP Online</td>
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#### Thyroid Disorders in the Young – What to do?

**TIM CHEETHAM**, United Kingdom

Learning Objectives:
- Understand the significance of local reference ranges and the potential pitfalls when interpreting thyroid function tests
- Develop a strategy for investigating and managing the child with an elevated TSH concentration
- Reflect on the fact that many thyroxine tablets never make it past the lips and consider ways of addressing this

**University Reader and Consultant Paediatric Endocrinologist, Newcastle University, Newcastle upon Tyne Hospitals NHS Foundation Trust**

#### Growth - Normal and Abnormal

**ALAN D. ROGOL**, USA

Learning Objectives:
- Understand the use of growth charts in the evaluation of childhood growth disorders
- Produce a differential diagnosis for a growth retarded child
- Understand the proper use of various growth-promoting agents for the various growth-inhibiting conditions

**Professor Emeritus, Pediatrics and Pharmacology, University of Virginia**

#### Congenital Combined Pituitary Hormone Deficiency

**JERZY B. STARZYK**, Poland

Learning Objectives:
- Understand the aetiology of the Congenital Pituitary Hormone Deficiency (CPHD) and its acute life-threatening or chronic consequences
- Consider CPHD diagnosis in patients at different ages on the basis of non-specific clinical manifestations and hypothalamo-pituitary magnetic resonance imaging
- Follow-up the possible consecutive CPHD appearing signs and the outcome of multihormonal replacement therapy as well as adjust the hydrocortisone doses

**Professor, Head of the Department of Pediatric and Adolescent Endocrinology, Jagiellonian University, Medical College, Faculty of Medicine, Institute of Pediatrics, University Children’s Hospital in Krakow**

#### Translational Research in Pediatric Growth Disorders

**FARASAT ZAMAN**, Sweden

Learning Objectives:
- From Bench to Bed to Bench; translational research in paediatrics – the limitations, successes/failures and timeframe
- Methods of translational research in paediatric growth disorders - existing pre-clinical models, bone organ cultures models, how to use human growth plate biopsies or bone biopsies
- Which experimental method to choose? Using a simple and feasible preclinical experimental model

**Assistant Professor, Department of Women’s and Children’s Health, Karolinska Institutet**
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Details</th>
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<tbody>
<tr>
<td>14:00-16:00</td>
<td><strong>PEDIATRICS</strong></td>
<td><strong>PE3: Section on CHILDHOOD OBESITY</strong></td>
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<tr>
<td></td>
<td>Chair: KURT WIDHALM</td>
<td><strong>EAROC Section - Obesity: A Topic for the Paediatrician? A Multisystem Approach to Tackling Childhood Obesity</strong></td>
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<td></td>
<td><strong>Presentation 1:</strong> Policies, Politics and Prevention of Pediatric Obesity in Denmark</td>
<td><strong>Learning Objectives:</strong> • Learn the importance of having a National Action plan against obesity approved by Government • Get insight how a national plan may affect political actions including daily physical activity in schools • Appreciate the importance that school, kindergarten and other institutions have a written policy on diet and physical activity</td>
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<td>INGE LISSAU, Sweden</td>
<td>Associate Professor, Senior Research Scientist at Clinical Research Unit, Copenhagen University Hospital, Hvidovre, DENMARK and Department of Child Health, Skane University Hospital, Malmö</td>
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<tr>
<td>14:00-14:40</td>
<td><strong>WORKSHOP 1:</strong> Nephrotic Syndrome: Management of Childhood Nephrotic Syndrome</td>
<td><strong>Briefing with Q&amp;A</strong></td>
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<td>Chair: NICK WEBB, United Kingdom</td>
<td><strong>Learning Objectives:</strong> • Understand the presenting features – how to spot the child with nephrotic syndrome • Review recent clinical trials relating to the initial corticosteroid regimen in the child presenting with nephrotic syndrome • Outline the management of relapsing disease</td>
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<td>Honorary Professor of Paediatric Nephrology, University of Manchester and Consultant Paediatric Nephrologist, Royal Manchester Children’s Hospital, Manchester</td>
<td>Also available through EIP Online</td>
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<td><strong>Presentation 2:</strong> Family/Systemic Therapy in Treating Childhood Obesity</td>
<td><strong>Learning Objectives:</strong> • Understand the basis of a professional conversation using psychological techniques effective in childhood obesity • Review appropriate literature in medicine and psychology • Consider ways of learning and training conversational therapy in childhood obesity</td>
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<td>CARL-ERIC FLODMARK, Sweden</td>
<td>Medical Officer at Swedish National Board of Health and Welfare and Associated professor at Lund University, Malmö</td>
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<td><strong>Presentation 3:</strong> Sedentary Behaviours in Children</td>
<td><strong>Latest Learning Objectives:</strong> Available at: <a href="http://eip-pediatrics-conference.ineip.org/">http://eip-pediatrics-conference.ineip.org/</a></td>
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<td>LUIS MORENO AZNAR, Spain</td>
<td>Full Professor at the University of Zaragoza, President of the Spanish Nutrition Society</td>
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<td><strong>Presentation 4:</strong> Early-life Nutrition and Future Health: Will They be Giants?</td>
<td><strong>Learning Objectives:</strong> • Discussing the role of nutrition in the first 1,000 days as the window for lifestyle changes and ultimately childhood obesity prevention • Understanding the importance of early prevention, even pre-conception, in terms to reduce risk in adulthood • Bring together specialists to look at the same results: Prevent early risks - reduce later risks - improve adult health</td>
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<td>ANGELO PIETROBELLI, Italy</td>
<td>Professor of Pediatric and Nutrition at Pediatric Unit of Verona University Medical School, Adjunct Associate Professor at Pennington Biomedical Research Center Baton Rouge LA – USA, Associate Editor International Journal of Obesity, Senior Physician at Pediatric Clinic</td>
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</table>
### DAY 1  
**THURSDAY, 07 DECEMBER 2017**  
**AFTERNOON SESSIONS**

<table>
<thead>
<tr>
<th>Time</th>
<th>Workshop</th>
<th>Location</th>
<th>Speaker/Specialty</th>
<th>Learning Objectives</th>
</tr>
</thead>
</table>
| 14:00-14:40   | WORKSHOP 2:  
CHILD & ADOLESCENT MENTAL HEALTH: Diagnosis and Management of Autism & ADHD  
Audience Response Session | Wien Room | MICHAEL FITZGERALD, Ireland  
Professor of Child and Adolescent Psychiatry | Learning Objectives:  
- Understand the diagnosis and overlap between Autism, ADHD and other neurodevelopmental disorders  
- Understand the new neurodevelopmental paradigm in child psychiatry  
- Understand the spectrum concept in child psychiatry |
| 14:40-15:20   | WORKSHOP 3:  
VACCINE HESITANCY: Overcoming Vaccine Hesitancy  
Audience Response Session | Mancini 3B Hall | ROY K. PHILIP, Ireland  
Consultant Paediatrician and Neonatologist, Adjunct Clinical Professor of Neonatology, University Maternity Hospital Limerick & GEMS, University of Limerick | Learning Objectives:  
- Measures to promote vaccination awareness and highlight proactive approaches for building, maintaining and enhancing trust in vaccination.  
- How to convert the results of vaccine research into a successful vaccination programmes.  
- Promote and sustain excellent vaccination coverage the vaccine community should adopt modern digital communication strategies. |
| 14:40-15:20   | WORKSHOP 4:  
RESPIRATORY: Pediatric Bronchoscopy - Indications for Rigid and Flexible Bronchoscopy  
Audience Response Session | Wien Room | SUSANNE LAU, Germany  
Prof. Charité-Universitätsmedizin Berlin, Department of Pediatric Pneumonology and Immunology | Learning Objectives:  
- To review the different indications for rigid and flexible bronchoscopies  
- To understand the advantages and potentials of one or the other approach  
- To understand the risks, disadvantages and technical requirements of the different approaches |
| 15:20-16:00   | PROFESSIONAL DEVELOPMENT  
PD1: PUBLISHING WORKSHOP: GETTING RESEARCH PUBLISHED  
Interactive Workshop | Mancini 3B Hall | MARK BEATTIE, United Kingdom  
Editor in Chief, Archives of Disease in Childhood, BMJ Publishing group | Learning Objectives:  
- Discuss the process by which journals select papers for publication  
- Discuss how to write for the reader - getting your message across  
- Participate in a ‘mock’ editorial committee selecting papers for publication |
| 15:20-16:00   | WORKSHOP 5:  
CYSTINOSIS: Spotting the Early Signs of Cystinosis  
Audience Response Session | Wien Room | NICK WEBB, United Kingdom  
Honorary Professor of Paediatric Nephrology, University of Manchester and Consultant Paediatric Nephrologist, Royal Manchester Children's Hospital, Manchester | Learning Objectives:  
- Understand the common presenting features of cystinosis  
- Review current treatment options, including renal transplantation  
- Review the extrarenal complications and long-term outcome. |
| 14:00-16:00   | OP2: ORAL PRESENTATIONS  
Moderator: JOAN-CARLES SURIS | Turin Room |  | |
## DAY 1  
**THURSDAY, 07 December 2017**  
### AFTERNOON SESSIONS

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<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>16:00-16:30</td>
<td><strong>COFFEE BREAK</strong> (Foyer &amp; Mancini 3A)</td>
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<tr>
<td>16:30-18:30</td>
<td><strong>PEDIATRICS</strong>&lt;br&gt;PE4: Section on GASTROENTEROLOGY&lt;br&gt;Moderator: KURT WIDHALM</td>
<td>Mancini 2 Hall</td>
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### Presentation 1>
**Genetics and treatment of lipoprotein disorders - PART 1 - Familial hypercholesterolemia - state of the art**
- **KURT WIDHALM**, Austria<br>President of the Austrian Academic Institute for Clinical Nutrition, Professor (Em.) at the Medical University Vienna<br>**Latest Learning Objectives:**<br>Available at: http://eip-pediatrics-conference.ineip.org/

### Presentation 2>
**Genetics and Treatment of Lipoprotein Disorders - PART 2 - Novel exciting treatments of severe forms**
- **CLAUDIA STEFANUTTI**, Italy<br>MD, PhD<br>Professor, Head of Extracorporeal Therapeutic Techniques Unit, Lipid Clinic and Atherosclerosis Prevention Centre<br>Regional Centre for Rare Diseases<br>Department of Molecular Medicine, “Sapienza” University of Rome and ‘Umberto I’ Hospital<br>**Latest Learning Objectives:**<br>Available at: http://eip-pediatrics-conference.ineip.org/

### Presentation 3>
**Epidemiology, Diagnosis and Management of Inflammatory Bowel Disease - Recent Advances**
- **MARK BEATTIE**, United Kingdom<br>Professor, Consultant Paediatric Gastroenterologist, University Hospital Southampton<br>**Learning Objectives:**<br>• Review the epidemiology, classification and aetiology of Inflammatory Bowel Disease in children<br>• Discuss the clinical features, investigation, and diagnosis<br>• Review the recent advances in management

### Presentation 4>
**Microbiome and Feecal Transplant**
- **AZIZ KOLEILAT**, Lebanon<br>Associate Professor Makassed University General hospital Gastroenterology & Asthma, Vice General Secretary (PASPGHAN) foreign affairs, Pan Arab Society Pediatric Gastroenterology, Hepatology & Nutrition<br>**Learning Objectives:**<br>• Overview of the microbiota in humans<br>• Effect of microbiota in health and disease<br>• Evaluating fecal transplant as a future therapy for difficult diseases

Also available through EIP Online
DAY 1  THURSDAY, 07 DECEMBER 2017  I  AFTERNOON SESSIONS

16:30-18:30

ADOLESCENT MEDICINE
AD2: Section on ADOLESCENT HEALTH COMMUNICATION
Moderator: GERALD HUMPHRIS

Presentation 1>
The Emotional Cues and Concerns Expressed by Oncology Paediatric Patients and the 17 Different Ways that Health Providers Respond

GERALD HUMPHRIS, United Kingdom
Chair in Health Psychology at University of St Andrews, Director of MSc Health Psychology course and Co Director of the WHO Collaborating Centre in International Child and Adolescent Health

Learning Objectives:
• Confirm how to recognise hidden emotions in young oncology patients
• Discover the differences between adult and paediatric presentation of emotional expression during clinical encounters
• Learn a taxonomy of clinician responding based upon ‘providing’ or ‘reducing’ space during health provider/patient interactions

Presentation 2>
Health Literacy Assessment in 13- to 17-year old Austrians: Results and Measurement Problems

ROSEMARIE FELDER-PUIG , HBSC Austria
Principal Investigator, Institute for Health Promotion and Disease Prevention

Learning Objectives:
• Discuss how health literacy has become an important concept in health promotion, disease prevention and disease management
• Consider that during adolescence, lifelong health behaviours and habits develop, and health literacy skills may support informed health-seeking lifestyles
• Reflect on the fact that so far none of the suggested concepts for measuring health literacy in adolescents has gained general acceptance and propose potential paths forward

Presentation 3>
Seizing Golden Communication Opportunities in Pediatric Consultations

TORUN MARIE VATNE, Norway
Frambu Resource Center for Rare Disorders

Learning Objectives:
• Understand how to enable children and adolescents to report symptoms
• Understand how children and adolescents express emotions during consultations
• Understand how to respond to children and adolescents concerns in a medical setting

WORKSHOP 6:
COMMUNITY PEDIATRICS: The Goshen Project: A Model for Implementing Comprehensive Community Pediatrics

BASIL PORTER, Israel
Emeritus Professor, Faculty of Health Sciences, Ben Gurion University of the Negev, Beersheva

Learning Objectives:
• Understand the deficiencies in the clinical field of Community Pediatrics, particularly regarding developmental and behavioral issues
• Use the knowledge and tools acquired to effect the change required in pediatric settings to show the centrality and importance of high quality community-based pediatric care
• Understand the need for pediatricians to be advocates for child health at the local and national level
• Understand the need to work with others from the fields of education and welfare to ensure comprehensive care for their pediatric population and their families
DAY 1  THURSDAY, 07 DECEMBER 2017  |  AFTERNOON SESSIONS

16:30-18:00  WORKSHOP 7:  
MANAGEMENT OF SPORTS INJURIES  
Hands on Session • Moderator: BOB SALLIS

**Presentation 1>** Essentials of the Knee Exam

**BOB SALLIS, USA**
Clinical Professor of Family Medicine, UC Riverside School of Medicine, USA, Co-Director, Sports Medicine Fellowship, Kaiser Permanente, Chair, Exercise is Medicine

**Learning Objectives:**
- List the key components of the history and examination of the knee
- Demonstrate proper technique for key examination maneuvers
- Determine the likely diagnosis of an injured knee based on the history and exam findings

**Presentation 2>** Essentials of sports-related back pain in children

**COURTNEY KIPPS, United Kingdom**
Principal Clinical Teaching Fellow and Consultant in Sport and Exercise Medicine, The Institute of Sport, Exercise & Health UCL

**Learning Objectives:**
- Review the causes of back pain and sports-related spinal injuries among children and adolescents
- Understand the possible management options of back pain and sports-related spinal injuries among children and adolescents including when to refer for investigations or specialist opinion
- Demonstrate the key examination techniques when assessing back pain and sports-related spinal injuries among children and adolescents

17:30-18:30  WORKSHOP 8:  
BREASTFEEDING: Teaching Mothers How to Breastfeed

**IOANNA GRIVEA, Greece**
Associate Professor of Pediatrics and Neonatology at the University of Thessaly

**Learning Objectives:**
- Promote breastfeeding as the norm for infant feeding
- Become knowledgeable in the principles and management of lactation
- Develop skills necessary for assessing the adequacy of breastfeeding
- Ten steps to successful breastfeeding

16:30-18:30  OP3: ORAL PRESENTATIONS  
Moderator: CHRISTINA AKRE

18:30  WELCOME RECEPTION - Foyer (Outside Mancini Halls 1 & 2) - All Delegates Invited
## DAY 2  FRIDAY, 08 DECEMBER 2017  |  MORNING SESSIONS

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<td>08:00-09:00</td>
<td>COFFEE START (Foyer &amp; Mancini 3A Hall)</td>
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<tr>
<td>09:00-11:00</td>
<td>PEDIATRICS</td>
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<tr>
<td></td>
<td>PE5: Section on RARE DISEASES</td>
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<td>Moderator: UMA RAMASWAMI</td>
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### Presentation 1
**Transforming Rarity into Knowledge to Care for and Cure Children with Rare Diseases**

**FRANCESC PALAU,** Spain  
Director of the Institute for Pediatric Rare Diseases (IPER) and Head of the Genetics Department, Sant Joan de Déu Children's Hospital. CSIC Research Professor and Visiting Professor Pediatrics, University of Barcelona

**Learning Objectives:**  
- Understanding the concept of rare and undiagnosed diseases beyond prevalence  
- Contextualizing the diagnosis of rare diseases in the era of genomics and genetic testing  
- Rarity as a way to understand the continuum of the pathophysiology between rare and common diseases

### Presentation 2
**Emergency Management, Inherited Metabolic Disorders**

**UMA RAMASWAMI,** United Kingdom  
Consultant in Inherited Metabolic Disorders, Lysosomal Disorders Unit, Royal Free Hospital, London

**Learning Objectives:**  
- When to suspect an inherited metabolic disorder in a sick child  
- Basic metabolic emergency investigations  
- First line management and treatments

### Presentation 3

**GLENDA SOBEY,** United Kingdom  
Head of Ehlers-Danlos Syndrome National Diagnostic Service, Sheffield Children's Hospital, Sheffield, United Kingdom.

**Learning Objectives:**  
- Awareness of the new 2017 Classification of the Ehlers-Danlos Syndromes  
- Update on the genetic testing available in this group of conditions  
- Familiarity with the clinical signs of the different types of EDS in paediatrics

### Presentation 4
**Vitamin-Dependent Encephalopathies - Cerebral Folate Deficiency - An Update**

**ROBERT STEINFELD,** Germany  
Coordinator of expert centre - Clinical expert - Responsible for diagnostic of lysosomal and neurometabolic disorders Centre for rare pediatric neurological diseases (GoRare) University Medical Centre Göttingen

**Learning Objectives:**  
- Understand the basic concepts of vitamin-dependent encephalopathies, in particular of cerebral folate deficiency  
- Review the signs and symptoms as well as therapeutic options for vitamin-dependent encephalopathies  
- Consider diagnostic procedures to obtain evidence and confirmation of vitamin-dependent encephalopathies in an early stage of the disease
DAY 2   FRIDAY, 08 DECEMBER 2017    I    MORNING SESSIONS

Mancini 1 Hall

09:00-11:00

**PEDIATRICS**

PE6: Section on ORAL HEALTH
Moderator: RICHARD WIDMER

Presentation 1>
Important “First Aid” for Oro-Facial Injuries in Children

RICHARD WIDMER, Australia
Head of Department & Senior Staff Specialist, Paediatric Dentistry, Children's Hospital at Westmead, Sydney Children's Hospital Network

Learning Objectives:
• Review the epidemiology of Oro-facial Injuries
• Outline the classification of Oro-facial Injuries
• Illustrate the short-term and long-term management of Oro-facial Injuries in the primary and permanent Dentition

Presentation 2>
The Front End of Paediatrics: Oral Health and Nutrition

COLIN MICHIE, United Kingdom
Consultant Paediatrician, Royal National Orthopaedics Hospitals, Imperial and University College

Learning Objectives:
• Examination of the oral cavity is a crucial part of the routine physical examination of a child
• Dental decay is the most common chronic paediatric disease
• Dental decay is largely preventable by nutritional and behavioural modifications

Presentation 3>
Oral Health and the Implications for Systemic Health

RICHARD WIDMER, Australia
Head of Department & Senior Staff Specialist, Paediatric Dentistry, Children's Hospital at Westmead, Sydney Children's Hospital Network

Learning Objectives:
• Review oro-facial development with special reference to the timing of the development of the dentition
• Revisit the recognition of healthy oro-facial tissues through childhood to adulthood and their importance in general health
• Illustrate the diagnostic importance of the dental/medical interface through infancy to adolescence

Mancini 3B Hall

09:00-11:00

**ADOLESCENT MEDICINE**

AD3: Section on TRANSITION TO ADULT CARE
Moderator: JOAN-CARLES SURIS

Presentation 1>
The MOCHA Project - Appraising the Differing Models of Child Health that are Used Across Europe

MITCH BLAIR, United Kingdom
Professor of Paediatrics and Child Public Health; Principal Investigator

Learning Objectives:
• Outline the aims and methods of the EU MOCHA project (Models of Child Health Appraised)
• Describe the key findings from the study around access to care, health professional communications (consultation and information), and transition issues in those with complex care needs
• Contextualise these with their own practice and WHO Strategy for Children and Young People

Presentation 2>
The Transition for Endocrine Complex Diseases

LUISA DESANCTIS, Italy
University of Turin

Learning Objectives:
• Understand that the transition from pediatric to adult care could represents a critical issue for patient with chronic and rare disease
• Offer an example of transition care for diabetes type I
• Offer an example of transition care for a endocrine rare and severe disease

Presentation 3>
Six Core Elements of Health Care Transition: A Quality Improvement Approach for Primary and Specialty Care

PEGGY McMANUS, USA
Got Transition and The National Alliance to Advance Adolescent Health

Learning Objectives:
• Review Clinical Report on Transition and Quality Improvement Model (Six Core Elements of Health Care Transition)
• Discuss Examples of Six Core Elements Approaches in Primary Care, Children's Hospitals, School-based Care, Behavioral Health, and Public Health
• Summarize New Transition Measures and Results
### DAY 2  
**FRIDAY, 08 DECEMBER 2017**  |  **MORNING SESSIONS**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Location</th>
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</table>
| 10:15-14:15| **HEALTH POLICY & ADVOCACY FOCUS GROUP MEETING**  
**LIFE COURSE IMMUNISATION**  
2nd Life Course Immunisation Focus Group - Open to All - Coffee and Lunch Served During the Meeting - Agenda available on page 47-48 | Wien Room      |
| 09:00-11:00| **PROFESSIONAL DEVELOPMENT**  
PD2: LEADERSHIP & TEAM DEVELOPMENT  
Interactive Workshop                                                                 | Turin Room     |
|            | ALISON JOHNS, United Kingdom  
Chief Executive of the Leadership Foundation for Higher Education  
Learning Objectives:  
• What sort of leader do you want to be?  
• What are your strengths, passions, blind spots and aspirations for development?  
• What are the characteristics of both high performing and dysfunctional teams?  
• And how can you promote and empower collaborative teamwork?  
DOUG PARKIN, United Kingdom  
Programme Director, Leadership Foundation for Higher Education                                                                 |
| 11:00-11:30| **COFFEE BREAK** (Mancini 3A and Foyer)                                                         | Mancini 2 Hall |
| 11:30-13:30| **PEDIATRICS**  
PE7: Section on DIET & ALLERGIES  
Moderator: LEANNE GOH  
Also available through EIP Online                                                                 |

**Presentation 1>**  
**Practical Advice for Children with Cow’s Milk Allergy**  
YVAN VANDENPLAS, Belgium  
Professor, Head of Department of Paediatrics, Universitair Ziekenhuis Brussel  
Learning Objectives:  
• Know the symptoms of cow’s milk allergy and how to diagnose it  
• Better understand how to diagnose cow’s milk allergy  
• Know about the management options

**Presentation 2>**  
**Elimination Diets as a Diagnostic Tool**  
SOPHIA KALLIS, United Kingdom  
Specialist Paediatric Allergy Dietitian at University College London Hospital  
Learning Objectives:  
• Understand the role of elimination diets in diagnosing food allergy  
• Practical implementation of elimination – reintroduction sequence  
• Consider the impact of multiple food eliminations

**Presentation 3>**  
**Interactive Case Studies in Paediatric Allergy**  
PENNY SALT, United Kingdom  
Consultant Paediatrician and Allergist, University College London Hospital  
Learning Objectives:  
• Common paediatric allergy presentations  
• Interactive discussions on management  
• Using real case studies

**Presentation 4>**  
**Anaphylaxis**  
LEANNE GOH, United Kingdom  
Consultant in General Paediatrics and Paediatric Allergy University College London Hospital  
Learning Objectives:  
• What is anaphylaxis? (Focus on food triggered anaphylaxis, illustrated with real case histories.)  
• What is the risk and impact?  
• Can we predict who is at risk of fatal anaphylaxis?
DAY 2 | FRIDAY, 08 DECEMBER 2017 | MORNING SESSIONS

**11:30-13:30**

**PEDIATRICS**

**PE8: Section on NEUROLOGY**

Moderator: BOB SALLIS

**Presentation 1>**

**Management of Headaches**

KENNETH J. MACK, USA
Professor, President Child Neurology Society, Mayo Clinic, Child and Adolescent Neurology

Learning Objectives:
• Understand common headache presentations in childhood
• Review recent large prospective trials in headache treatment
• Consider holistic treatment strategies involving both lifestyle and medication approaches

**Presentation 2>**

**What is Concussion and How to Manage it?**

COURTNEY KIPPS, United Kingdom
Principal Clinical Teaching Fellow and Consultant in Sport and Exercise Medicine, The Institute of Sport, Exercise & Health UCL

Learning Objectives:
• Review the signs and symptoms of sports-related concussion among children and adolescents
• Understand the management options of sports-related concussion among children and adolescents
• Explain when to refer for investigations or specialist opinion in managing sports-related concussion among children and adolescents

**Presentation 3>**

**Update on Concussions: Why the Hysteria Around the Injury May be a Threat to Health**

BOB SALLIS, USA
Clinical Professor of Family Medicine, UC Riverside School of Medicine, USA, Co-Director, Sports Medicine Fellowship, Kaiser Permanente, Chair, Exercise is Medicine

Learning Objectives:
• Define the signs and symptoms of sports related concussion
• Summarize the true risks of repeated concussions
• Design an evidence based strategy for managing sports related concussions

**Presentation 4>**

**Different Therapeutic Approaches in the Treatment of Cerebral Palsy**

SVETISLAV POLOVINA, Croatia
Specialist Physical Medicine and Rehabilitation, Polyclinic for Physical Medicine and Rehabilitation

Learning Objectives:
• Review different therapeutic approaches in the treatment of cerebral palsy
• Discuss the lack of guidelines in the rehabilitation/treatment of cerebral palsy
• Stress the importance of further research

**11:30-13:30**

**PEDIATRICS**

**PE9: Section on DERMATOLOGY: INTERACTIVE PEDIATRIC DERMATOLOGY CASES**

Audience Response Session

**Presentation 1>**

**Test Yourself in Pediatric Dermatology. An Interactive Case-oriented Workshop - PART 1**

DIRK VAN GYSEL, Belgium
Head of the Department of Pediatrics, O.L Vrouw Hospital Aalst. Board member and former Treasurer of the ESPD

Learning Objectives:
• Improve your knowledge on systematic skin examinations
• Recognize the clinical features and differential diagnoses of a selection of relevant pediatric skin affections
• Be prepared to initiate the adequate first step diagnostic approaches
• Understand the first line treatment and management of these skin problems

**Presentation 2>**

**Test Yourself in Pediatric Dermatology. An Interactive Case-oriented Workshop - PART 2**

BARBARA KUNZ, Germany
Specialist Dermatologist, Direction of Paediatric dermatology, Dermatologikum Hamburg, Board member of the European Society of Pediatric Dermatology (ESPD)

Learning Objectives:
• Improve your knowledge on systematic skin examinations
• Recognize the clinical features and differential diagnoses of a selection of relevant pediatric skin affections
• Be prepared to initiate the adequate first step diagnostic approaches
• Understand the first line treatment and management of these skin problems

**OP4: ORAL PRESENTATIONS**

Moderator: CHRISTINA AKRE

**11:30-13:30**

LUNCH BREAK | POSTER VIEWINGS 2

(Lunchtime Viewing Groups & Guided Tours) - Hall: Mancini 3A - Group 1, 2, 3 - JOAN-CARLES SURIS, JUDIT VILLOSLADA, CHRISTINA AKRE

**13:30-14:30**
DAY 2  FRIDAY, 08 DECEMBER 2017  |  AFTERNOON SESSIONS

13:30-14:30  PRACTICAL HOW TO... DEMONSTRATION SESSIONS
(delivered by the Conference Faculty) 15 minutes each - Seating for 25

Mancini 3A Hall

PENNY SALT, United Kingdom
Consultant Paediatrician and Allergist, University College London Hospital

SOPHIA KALLIS, United Kingdom
Specialist Paediatric Allergy Dietitian at University College London Hospital

LEANNE GOH, United Kingdom
Consultant in General Paediatrics and Paediatric Allergy University College London Hospital

Basic eczema skin care
- Avoiding triggers
- Bathing the child with eczema
- Effective application of emollients

Milk alternatives
- Review of hypoallergenic formulas and dairy free milks
- Practical tips for the successful introduction of milk alternatives
- Creative use of milk alternatives in cooking

Adrenaline autoinjectors
- Educating patients on how to recognise anaphylaxis
- Adrenaline autoinjector technique
- Written allergy action plans

14:30-16:30  PEDIATRICS

Mancini 2 Hall

PE10: Section on INFECTIOUS DISEASES
Moderator: ANDREW RIORDAN

Presentation 1>
Should We Use Antipyretics Before Vaccination?

ANDREW RIORDAN, United Kingdom
Consultant in Paediatric Infectious Diseases and Immunology at Alder Hey Children’s Hospital

Learning Objectives:
- At the end of the session the attendees will know the “do’s and don’ts”
- Don’t routinely give paracetamol before vaccines, except to infants before Bexsero
- Do give paracetamol or ibuprofen to relieve pain and distress after immunisation
- Don’t give ibuprofen before immunisation – it doesn’t work

Presentation 2>
The Impact of Routine National Immunization Programmes on Antibiotics Throughout Europe

CATHERINE WEIL-OLIVIER, France
Honorary Professor of Pediatrics and Independent Expert

Learning Objectives:
- Consider the global impact of routine national immunization across European countries
- Importance of an approach combining large vaccination coverage and good practices in antibiotics prescription
- Identify the points of residual hurdles across Europe

Presentation 3>
Have our expectations been attained by pneumococcal conjugate vaccines?

GEORGE SYROGIANNOPULOS, Greece
Professor and Chairman of Paediatrics at the University of Thessaly, School of Medicine in Larissa

Learning Objectives:
- Learn the remaining burden of pneumococcal invasive disease
- Understand the extent of the reduction of pneumonia and otitis media in paediatric populations
- Explore the differences in the impact of pneumococcal conjugate vaccines on public health among different countries
- Evaluate the replacement phenomenon

Presentation 4>
European Attitudes to Vaccination and Meningitis - A Combined Approach

ELENA MOYA, Spain
Co-ordinator for Europe and Africa, Confederation of Meningitis Organisations (CoMO)

CATHERINE WEIL-OLIVIER, France
Honorary Professor of Pediatrics and Independent Expert

Learning Objectives:
- Consider the attitudes to vaccination in adolescents across European countries
- Importance of a combined approach to health communication: value and perspectives
- Identify differences in levels of meningitis awareness in adolescents across Europe
DAY 2  FRIDAY, 08 DECEMBER 2017  |  AFTERNOON SESSIONS

**NEONATOLOGY**

**NE2: Section on NEONATOLOGY**
Moderator: FRANCESCO RAIMONDI

Presentation 1>

*Normal Motor Development in the First Year of Life*

**ANDREA POLOVINA**, Croatia
Specialist Physical Medicine and Rehabilitation, Polyclinic for Physical Medicine and Rehabilitation

**Learning Objectives:**
- Understand the dynamics of normal motor development—demonstration
- Consider differences in quantitative and qualitative aspects of normal motor development
- Emphasize the importance of recognizing and understanding normal motor development in order to spot out the children with abnormalities in motor development

Presentation 2>

*Neonatal Hyperbilirubinemia in 2017: An Update for Pediatric HCPs*

**FRANCESCO RAIMONDI**, Italy
Chief, Division of Neonatology, Section of Pediatrics Dept of Translational Medical Sciences, Università “Federico II” di Napoli

**Learning Objectives:**
- Understand the pathophysiology of neonatal bilirubin metabolism
- Review the topics that still can represent a problem in daily practice
- Consider the available strategies to solve current issues

**Spot the Early Signs**

**14:30-16:30**
**SES1: PART OF THE SPOT THE EARLY SIGNS WEBINAR SERIES**
Moderator: UMA RAMASWAMI

Presentation 1>

**SES - Metabolic Disorders Training 1**

*Gaucher Disease: Spot the Early Signs in the Pediatric Population*

**GIOVANNI CIANA**, Italy
Regional Coordinating Centre for Rare Diseases, Azienda Ospedaliero-Universitaria “3. Maria della Misericordia”, Udine

**Learning Objectives:**
- Reviewing the signs that should raise a high suspicion of Gaucher disease
- Differential diagnosis of the three clinical phenotypes
- When to start treatment?

Presentation 2>

**SES - Metabolic Disorders Training 2**

*Fabry Disease - Do We Need Better Biomarkers in Lysosomal Storage Disorders?*

**PATRICIO AGUIAR**, Portugal
Inherited Metabolic Disorders Adult Clinic, Reference Center in Inherited Metabolic Disorders. Centro Hospitalar Lisboa Norte (Hospital de Santa Maria), Lisbon

**Learning Objectives:**
- What are biomarkers and why do we need them?
- Are there reliable biomarkers for diagnosis, early identification of organ involvement and prognosis of lysosomal storage disorders?
- What tool scan we use to identify new biomarkers?

Presentation 3>

**SES - Metabolic Disorders Training 3**

*Spotting the Signs of Lysosomal Storage Diseases in Order to Make an Early Diagnosis*

**FRANCOIS EYSKENS**, Belgium
Professor, CEMA-Centrum Erfelijke Metabole Aandoeningen

**Learning Objectives:**
- Understand how Lysosomal Storage Disorders (LSDs) are a large group of inborn errors of metabolism characterized by specific accumulated metabolites;
- Review how clinical manifestations are broad, usually involve multiple organs, and have overlap between different disease groups;
- Explore how neurological manifestations are the most common presentation: LSDs should be considered in the differential diagnosis of neurological regression, epilepsy and/or multisystem disease (dysmorphism, hepatosplenomegaly, skeletal abnormalities, cardiac disease, …);
- Examining Urine oligosaccharides and glycosaminoglycan (GAG) screening as useful tools to identify LSDs-Definitive diagnosis can be made by enzyme and/or molecular analysis;
- Concluding that most of LSDs are inheritable diseases and a proper diagnosis is important in order to provide appropriate genetic counseling.
DAY 2  FRIDAY, 08 DECEMBER 2017  |  AFTERNOON SESSIONS

Presentation 4:  
**SES - Metabolic Disorders Training 4**  
Spot the Early Signs of Mucopolysaccharidoses - One Disease with Many Faces

**SUSANNE KIRCHER, Austria**  
LSD metabolism screening and genetic counseling, Medizinische Universität Wien, Zentrum für Pathobiologie und Genetik, Institut für Medizinische Chemie und Pathobiologie, Institut für Medizinische Genetik, Wien

**Learning Objectives:**
- Understand the pathophysiology and recognize the different types of mucopolysaccharidosis
- Recognize better the differences of the specific first symptoms and which tests should be done
- Consider possible opportunities for therapy which depend on MPS-type and age

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14:30-15:10  
**BRIEFING**  
**BR1: PREBIOTICS & PROBIOTICS**

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**Wien Room**

15:10-15:50  
**WORKSHOP 9:**  
CHILD & ADOLESCENT MENTAL HEALTH: Early Intervention for Eating Disorders

**DASHA NICHOLLS, United Kingdom**  
Consultant Child and Adolescent Psychiatrist, Great Ormond Street Hospital

**Learning Objectives:**
- Understand the importance and significance of early intervention for outcome in eating disorders
- Explain the early intervention approaches in this patient group
- Differentiate early intervention needs based on diagnosis and risk

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15:50-16:30  
**WORKSHOP 10:**  
HEPATITIS C: Treatment of Hepatitis C Virus Infection in Children  
Briefing with Q&A

**GIUSEPPE INDOLFI, Italy**  
Consultant Paediatric and Liver Unit Azienda Ospedaliero-Universitaria Meyer, Florence

**Learning Objectives:**
- Know the treatment options currently available for treatment of children with chronic hepatitis C virus infection
- Understand indications and contraindications to treatment
- Have an overview of therapeutic options in the pipeline of development

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14:30-15:30  
**PROFESSIONAL DEVELOPMENT**  
**PD3: WRITING SCIENTIFIC PAPERS**  
Interactive Workshop

**IMTI CHOONARA, United Kingdom**  
Editor in Chief of BMJ Paediatrics Open, BMJ Publishers and RCPCH, London, UK

**Learning Objectives:**
- Understand how to prepare a paper for submission
- Understand how to respond to reviewer’s comments
- Understand how to choose the right journal for your paper
### PROFESSIONAL DEVELOPMENT

**PD4: SOCIAL MEDIA: KNOWLEDGE TRANSLATION IN THE 21ST CENTURY**

**Interactive Workshop**

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Country</th>
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<tbody>
<tr>
<td>DAMIAN ROLAND</td>
<td>United Kingdom</td>
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</table>

**Learning Objectives:**
- To appreciate the increasing role of social media in medical education and evidence-based medicine.
- To highlight examples of good practice in paediatrics.
- To demonstrate the challenges of Social Media.

**Date & Time:** 15:30-16:30

**Location:** Turin Room

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### COFFEE BREAK

**Date & Time:** 16:30-17:00

**Location:** Foyer & Mancini 3A

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### PEDIATRICS

**PE11: Section on ENDOCRINOLOGY**

**Moderator:** TIM CHEETHAM

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<tr>
<th>Presentation</th>
<th>Speaker</th>
<th>Country</th>
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<tbody>
<tr>
<td><strong>1</strong> Cranial Diabetes Insipidus – Lessons Learned</td>
<td>TIM CHEETHAM</td>
<td>United Kingdom</td>
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</tbody>
</table>

**Learning Objectives:**
- Appreciate the factors that point towards pathology as opposed to physiology in the child with polydipsia and polyuria.
- Understand why the water deprivation test is only one piece of a much bigger jigsaw when attempting to make a diagnosis.
- Consider how best to manage cranial diabetes insipidus safely – doctors have traditionally been very good at rendering some patients hyponatraemic.

**Speaker Details:**
- University Reader and Consultant Paediatric Endocrinologist, Newcastle University, Newcastle upon Tyne Hospitals NHS Foundation Trust

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<tr>
<th>Presentation</th>
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<th>Country</th>
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<tbody>
<tr>
<td><strong>2</strong> Abnormal Puberty as a First Symptom of Disorders/Differences of Sex Development (DSD)</td>
<td>MARIA SZARRAS-CZAPNIK</td>
<td>Poland</td>
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**Learning Objectives:**
- Understand the process of sex determination and differentiation and disorders of sex development / atypical sex development (DSD).
- Review DSD where presentation is delayed until teenage or young adulthood and mainly characterized by atypical or incomplete signs of puberty.
- Consider DSD diagnostic procedures in a patient who goes through puberty differently than the average child.

**Speaker Details:**
- Consultant Endocrinologist, The Children’s Memorial Health Institute, Warsaw

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<th>Country</th>
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<tbody>
<tr>
<td><strong>3</strong> Side Effects of Glucocorticoids with an Emphasis on Topical Administration</td>
<td>ALAN D. ROGOL</td>
<td>USA</td>
</tr>
</tbody>
</table>

**Learning Objectives:**
- Understand how topical glucocorticoids may affect the hypothalamic-pituitary-adrenal axis.
- Understand the differential potencies of the various topical glucocorticoid therapeutic agents.
- Understand how the diagnosis of secondary adrenal insufficiency is made.

**Speaker Details:**
- Professor Emeritus, Pediatrics and Pharmacology, University of Virginia

**Date & Time:** 17:00-18:30

**Location:** Mancini 2 Hall

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### BRIEFING

**BR2: RESPIRATORY**

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<tr>
<th>Speaker</th>
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<tr>
<td>ANDREW BUSH</td>
<td>United Kingdom</td>
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**Learning Objectives:**
- Review the dramatic changes in the understanding of cystic fibrosis and how this has translated into modern approaches.
- Contrast progress in cystic fibrosis with the stagnation in other airway diseases, especially ‘asthma’ and bronchiolitis.
- Understand how this may be remedied by the new approach to airway disease proposed by the Lancet commission on asthma.

**Speaker Details:**
- Professor of Paediatrics and Head of Section (Paediatrics), Imperial College, Professor of Paediatric Respiriology, National Heart and Lung Institute

**Date & Time:** 17:00-17:45

**Location:** Mancini 1 Hall
BRIEFING

17:45-18:30

BR3: PRIMARY IMMUNODEFICIENCIES

How to Recognise Primary Immunodeficiencies

JUTTE VAN DER WERFF TEN BOSCH, Belgium
Professor of Pediatric Hematology, Oncology and Immunology, Paola Childrens Hospital, Antwerpen

Learning Objectives:
• A practical and very short recapitulation of the function immune system
• How to recognize a child with an immunodeficiency
• How to recognize an Immunological emergency
• What can I do myself to start the work-up

PROFESSIONAL DEVELOPMENT

17:00-18:30

PD5: PRESENTATION SKILLS FOR HEALTHCARE PROFESSIONALS

Interactive Workshop

ALISON JOHNS, United Kingdom
Chief Executive of the Leadership Foundation for Higher Education

DOUG PARKIN, United Kingdom
Programme Director, Leadership Foundation for Higher Education

Learning Objectives:
• Speak to groups with confidence, professionalism and commitment
• Define the purpose and objectives of a presentation, anticipate the needs of the audience and develop a simple and effective structure
• Communicate a clear message, project enthusiasm and maintain interest
• Manage nervousness and other negative pre-presentation feelings
• Begin and end a presentation with impact and authority

SPOT THE EARLY SIGNS

17:00-18:00

SES2: SPOT THE EARLY SIGNS

Moderator: UMA RAMASWAMI

SES - Metabolic Disorders Training 5
Case Studies in Clinical Genetics: Hints and Pitfalls for Undiagnosed Lysosomal Storage Disorders

VASILICA PLAIAȘU, Romania
Clinical Geneticist, Regional Center of Medical Genetics Bucharest, INSMC

Learning Objectives:
• An overview of various classifications of LSDs
• Describe diagnostic procedures and laboratory tests used to diagnose LSDs (clinical, imaging, biochemical, molecular) with important hints
• Provide common and particular LSDs with examples of pitfalls in terms of variability in age of presentation, broad heterogeneity in clinical presentations, variable rate of disease progression, genotype/phenotype correlation, family history and pedigree, genetic counselling issues

17:00-18:30

OP5: ORAL PRESENTATIONS

Moderator: JOAN-CARLES SURIS

18:30

DAY CLOSING
<table>
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<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
<th>Presentations</th>
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<tbody>
<tr>
<td>08:30-09:30</td>
<td>COFFEE START (Foyer &amp; Mancini 3A)</td>
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<tr>
<td>09:30-11:30</td>
<td>PEDIATRICS</td>
<td>Mancini 2 Hall</td>
<td><strong>Presentation 1</strong>&lt;br&gt;Do we use Medicines Rationally? What Should be Considered When Prescribing?&lt;br&gt;<strong>Moderator:</strong> TERENCE STEPHENSON&lt;br&gt;<strong>Presenters:</strong>&lt;br&gt;IMTI CHOONARA, United Kingdom&lt;br&gt;DAMIAN ROLAND, United Kingdom&lt;br&gt;ROY K. PHILIP, Ireland&lt;br&gt;<strong>Learning Objectives:</strong>&lt;br&gt;- Understand the concept of rational prescribing&lt;br&gt;- Be aware of examples of irrational prescribing&lt;br&gt;- Be aware of tools to assess rational prescribing in children&lt;br&gt;- Review recent evidence on decision making in medicine&lt;br&gt;- Understand how cognitive processes affect decision making in acute paediatrics&lt;br&gt;- Review how we can optimise training to improve decision making in students and junior health professionals&lt;br&gt;- What is PHDU care (Paediatric Critical Care Levels I &amp; II)? How to develop and sustain quality of care in a PHDU?&lt;br&gt;- Who should be cared for in a PHDU and the clinical and health economic value?&lt;br&gt;- Regional and National models of PHDU and the role in acute care of infants and children globally&lt;br&gt;- Understand the importance of parental mental ill health as a risk factor for adolescent mental ill health and the various pathways through which the former influences the latter&lt;br&gt;- Review existing support and prevention programmes for young people caring for a parent with mental ill health, including practice examples from Austria&lt;br&gt;- Discuss what professionals (pediatricians, GP’s, nurses,...) can do to “detect” and support adolescent carers for a parent with mental ill health&lt;br&gt;- Explore the association of parental communication and support with adolescents’ health, life satisfaction and health behaviours&lt;br&gt;- Consider the role of family communication and support as a protective factor against engaging in risk behaviours: smoking, drinking, using cannabis, early sexual or suicidal behaviours and self-harm&lt;br&gt;- Describe the family social context: Growing up unequal: socioeconomic differences in young people’s health and well-being.</td>
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**MORNING SESSIONS**

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<tr>
<th>Time</th>
<th>Section</th>
<th>Location</th>
<th>Presentations</th>
</tr>
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<tbody>
<tr>
<td>09:30-11:30</td>
<td>ADOLESCENT MEDICINE</td>
<td>Mancini 1 Hall</td>
<td><strong>Presentation 1</strong>&lt;br&gt;Adolescent Mental Health: Supporting Young People with Caregiving Responsibilities and Their Families&lt;br&gt;<strong>Presenters:</strong>&lt;br&gt;AAGJE IEVEN, Belgium&lt;br&gt;Joy Ladurner, HPE Austria&lt;br&gt;<strong>Learning Objectives:</strong>&lt;br&gt;- Understand the importance of parental mental ill health as a risk factor for adolescent mental ill health and the various pathways through which the former influences the latter&lt;br&gt;- Review existing support and prevention programmes for young people caring for a parent with mental ill health, including practice examples from Austria&lt;br&gt;- Discuss what professionals (pediatricians, GP’s, nurses,...) can do to “detect” and support adolescent carers for a parent with mental ill health&lt;br&gt;- Explore the association of parental communication and support with adolescents’ health, life satisfaction and health behaviours&lt;br&gt;- Consider the role of family communication and support as a protective factor against engaging in risk behaviours: smoking, drinking, using cannabis, early sexual or suicidal behaviours and self-harm&lt;br&gt;- Describe the family social context: Growing up unequal: socioeconomic differences in young people’s health and well-being.</td>
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**CONFERENCE PROGRAMME**

**DAILY PROGRAMME**

**SATURDAY, 9 DECEMBER 2017**
DAY 3  SATURDAY, 9 DECEMBER 2017  |  MORNING SESSIONS

MASTERCLASS
MC1: NEONATOLOGY
Audience Response Session - Coffee served in room from 10:00-10:30

Essentials of Invasive and Non-invasive Ventilation in Newborns

ROLAND HENTSCHEL, Germany
Professor, Head of Division Neonatology/Pediatric Intensive Care at Department Pediatrics, University Hospital Freiburg

TORSTEN UHLIG, Germany, Austria
Head of Department of Pediatrics, Klinikum Rosenheim & Lecturer in Pediatrics at LMU University Munich and Paracelsus University Salzburg

Learning Objectives:

ESSENTIALS OF CPAP AND HIGH-FLOW NASAL CANNULA
- Understand and define the mode of action of CPAP and high-flow nasal cannula based on physiological principles
- Identify patients who are selected for or excluded from the use of CPAP and high-flow nasal cannula in daily practice in NICU
- Consider advantages and limitations of both forms of neonatal respiratory support

ESSENTIALS OF INVASIVE VENTILATION (incl. HFOV)
- Understand modern concepts of neonatal ventilation based on patient-triggered volume-adopted lung-protective strategies
- Review individual patients for their needs of actual ventilation support at different stages of disease
- Consider HFOV or conventional mechanical ventilation as differential approaches for ventilatory support

ESSENTIALS OF NON-INVASIVE VENTILATION
- Understand and define basic principles of noninvasive positive pressure ventilation in neonates
- Review indications for NIPPV in different clinical settings based on study results
- Consider benefits and complications of NIPPV

ESSENTIALS OF SURFACTANT TREATMENT AND NITRIC OXIDE (NO)
- Understand the physiological basis and significance of Surfactant and NO treatment in neonatal intensive care medicine
- Review the curative potential of Surfactant and NO treatment as an adjunct to mechanical ventilation in respiratory diseases of the newborn
- Consider Surfactant and NO as prophylactic and therapeutic aid in different respiratory diseases

PART 1 Essentials of CPAP and High flow-nasal cannula
PART 2 Essentials of invasive ventilation (incl. HFOV)
PART 3 Essentials of non-invasive ventilation
PART 4 Essentials of surfactant treatment and nitric oxide (NO)

PROFESSIONAL DEVELOPMENT
PD6: LEADING CHANGE IN A COMPLEX ENVIRONMENT
Interactive Workshop

Leading Change in a Complex Environment

ALISON JOHNS, United Kingdom
Chief Executive of the Leadership Foundation for Higher Education

DOUG PARKIN, United Kingdom
Programme Director, Leadership Foundation for Higher Education

Learning Objectives:
- What are the drivers for change surrounding the context in which you lead?
- How can you inspire collective commitment around the need for change?
- What do we understand by user-centered change and what are the values associated with this?
- And what is the relationship between culture, strategy and change?
Day 3  Saturday, 9 December 2017  |  Morning Sessions

9:30-11:00  Professional Development

PD7: Professional Development CVs, Grants & Papers

Audience Response Session

Academic Survival: How to Write Your CV, Grant Applications and Papers

ANDREW BUSH, United Kingdom
Professor of Paediatrics and Head of Section (Paediatrics), Imperial College, Professor of Paediatric Respilology, National Heart and Lung Institute

Learning Objectives:
• Understand the differences in emphasis needed when writing CVs for different positions such as clinical and academic research posts
• Realise the different strategies needed for writing successful grant applications and publishable papers
• Structure a scientific paper and deal with reviewers responses so as to maximise chances of ultimate acceptance

11:30-12:00  Plenary Closing Lecture (Mancini 2 Hall)

Five Papers Which Changed My Practice

TERENCE STEPHENSON, United Kingdom
Nuffield Professor of Child Health, Institute of Child Health, UCL, Chair General Medical Council (UK) 2015-2018, Former Chair, UK Academy of Medical Royal Colleges 2012-2014, Past President, Royal College of Paediatrics and Child Health 2009-2012

Learning Objectives:
• The first objective is for you to consider whether you should change your practice too in the light of these?
• The second objective is to consider whether you are familiar with the different ways of answering areas of clinical uncertainty
• The third objective is to consider whether you can critically assess the papers which you read and the talks which you hear

12:00-12:30  Conference Closing Remarks

Conference Chairs: Terence Stephenson, Joan-Carles Suris, Jo Inchley
Turin Room

FRIDAY 8th DEC 09:00-11:00

PROFESSIONAL DEVELOPMENT

Workshop: Discovering Leadership - to engage, develop and transform
Interactive Session

Module 1 - Leadership and Team Development

There is nothing greater than great leadership, not for what it is in itself but for what it enables others to achieve, create and become. This session will be an opportunity to develop your understanding of leadership, particularly team leadership and team development. It will encourage you to consider afresh the question “what sort of leader do I want to be?” and to explore this through some contemporary perspectives such as transformational leadership and collective leadership. Within this we will consider the characteristics of high-performing teams and the leader’s role in supporting teams to develop and flourish.

This session will explore:
- What sort of leader do you want to be?
- What are your strengths, passions, blind spots and aspirations for development?
- What are the characteristics of both high performing and dysfunctional teams?
- And how can you promote and empower collaborative teamwork?

Facilitators:
ALISON JOHNS, United Kingdom
Chief Executive of the Leadership Foundation for Higher Education
DOUG PARKIN, United Kingdom
Programme Director of the Leadership Foundation for Higher Education

Wien Room

FRIDAY 8th DEC 17:00-18:30

PROFESSIONAL DEVELOPMENT

Workshop: Presentation Skills for Healthcare Professionals.
You can lecture an audience to knowledge (sometimes), but you must inspire it to think!

This highly engaging and practical session will help you to speak so that others want to listen and to prepare and deliver presentations that get your message across with energy and confidence. Whether presenting to a large audience, sitting around a table or to a group of colleagues, the ideas and techniques covered in this session will help you to use these opportunities to make a powerful and memorable impact.

This session will explore how to:
- Speak to groups with confidence, professionalism and commitment
- Define the purpose and objectives of a presentation, anticipate the needs of the audience, and develop a simple and effective structure
- Communicate a clear message, project enthusiasm and maintain interest
- Manage nervousness and other negative pre-presentation feelings
- Begin and end a presentation with impact and authority.

Facilitators:
ALISON JOHNS, United Kingdom
Chief Executive of the Leadership Foundation for Higher Education
DOUG PARKIN, United Kingdom
Programme Director of the Leadership Foundation for Higher Education
### Module 2 - Leading Change in a Complex Environment

“Today, the most important question for any organization is this: are we changing as fast as the world around us?”


Gary Hamel’s insightful quote is as important for healthcare organisations as for any other large public or corporate organisation. And where there is high complexity, whether arising from user needs, service enhancement and diversification, or external expectations the uncertainties about change become magnified.

This session will be an opportunity to explore the drivers for change that are most critical in your context and their implications for you as a leader. It will also stimulate discussion and ideas about creating collective commitment around the need for change and building a sense of shared purpose and mutual accountability.

This session will explore:
- What are the drivers for change surrounding the context in which you lead?
- How can you inspire collective commitment around the need for change?
- What do we understand by user-centred change and what are the values associated with this?
- And what is the relationship between culture, strategy and change?

### Facilitators:

ALISON JOHNS, United Kingdom  
Chief Executive of the Leadership Foundation for Higher Education

DOUG PARKIN, United Kingdom  
Programme Director of the Leadership Foundation for Higher Education
The 2nd Life Course Immunisation Focus Group

After the very successful 2016 Life Course Immunisation Focus Group at the Excellence in Paediatrics Conference in London, EIP are once again collaboration with the Confederation of Meningitis Organisations (CoMO), the Coalition for Life Course Immunisation (CLCI) and a host of partners for the 2nd Life Course Immunisation Focus Group.

The 2nd Life Course Immunisation Focus Group is taking place on Friday 8th December 2017 in the Wien Room from 10:15-14:15 and is tasked with aligning strategies to increase vaccination rates and overcome vaccine hesitancy across Europe. The meeting puts you as a frontline HCP at the centre of immunisation strategy. This is an open meeting and we would encourage you to join to help improve vaccinations rates across Europe.

Date & Time  Friday 8th December 2017, 10:15 - 14:15 (coffee/lunch provided in the room)
Location Hotel Savoyen, Vienna, Austria
Room During EIP Conference, Wien Hall

The Agenda of the meeting is detailed below and we look forward to welcoming you on Friday 8th December.

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<tr>
<th>Section</th>
<th>Section Type/Time</th>
<th>Section Title</th>
<th>Section Overview, Scope &amp; Speakers</th>
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<tbody>
<tr>
<td>POLICY</td>
<td>10:15-10:30</td>
<td>Welcome</td>
<td>Introduction to the Focus Group from the Chairs - Purpose of meeting, structure, desired outcomes - Introduction to Co-Chairs - Terence Stephenson, Daphne Holt &amp; David Salisbury.</td>
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<td>10:30-10:45</td>
<td>Setting the Scene - Overview of Vaccines Policies, Changes Made and Steps Taken in the last 12 months</td>
<td>An overview of current vaccines policies across Europe (Updates from the European Commission, and Countries). Examining changes made and positive steps taken on vaccination policies across Europe (and within European countries) during 2017. Outlining Vaccination priorities in 2018, reviewing surveillance data and current population coverage. Section Chaired by: Prof David Salisbury</td>
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<td>10:45-11:00</td>
<td>Overview</td>
<td>Surveillance &amp; Population Coverage Across Europe Speaker: Pier Luigi Lopalco (via video link)</td>
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<td>11:00 -11:15</td>
<td>Spain</td>
<td>Vaccination Update – policies, progress and priorities in Spain Speaker: Francisco Gimenez Sanchez</td>
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<td>11:15 -11:30</td>
<td>The Netherlands</td>
<td>Vaccination Update - policies, progress and priorities in the Netherlands Speaker: Elisabeth Sanders</td>
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<td>11:30 -11:45</td>
<td>Ireland</td>
<td>Communication and information dissemination during a pandemic Results and experiences from the 2016 Irish Citizen Consultation Speakers: Peggy Maguire/ Vanessa Moore</td>
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<td>11:45 -12:00</td>
<td>Greece</td>
<td>Vaccination Update - policies, progress and priorities in Greece Speaker: George Syrogiannopoulos</td>
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<td>12:00 - 12:15</td>
<td>European Commission</td>
<td>Update on progress and Joint Action Speaker: Michael Sulzner</td>
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<td>12:15 -12:30</td>
<td>Open Forum</td>
<td>• Reviewing the changes made in individual countries and within the decision-making bodies of the European Union. • Policy changes mapping for European countries present • Group will conclude if during the last year positive changes have been made towards the target of universal immunity against vaccine preventable diseases.</td>
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### Part 2
12:15 - 13:00

**PLANNED ACTIONS**

| 12:15 - 13:00 | **Overview from the Coalition for Life Course Immunisation (CLCI) business meeting held earlier in the day – Malcolm Taylor – 10 minutes**
| **Selected presentations from CLCI members to hear about activities that individual members are already planning/implementing – 4 x 7 minutes – 28 minutes in total**
| **Networking and working for a common cause - examining overlaps and combined actions to create greater outreach – Gertraud Daye – 10 minutes**

### Break
13:00-13:10

Break and Lunch Served (Please return to assigned Focus Groups for Working Lunch)

### Intro to Part 3
13:10-13:15

Introduction to focus groups, procedures, outcomes and reporting  
Section Chaired by: Terence Stephenson

### Part 3
13:10 -13:50 - Lunch served, but as part of a working lunch

#### Focus Group A
13:15-13:50

**Working Group on Advocacy**  
**Improving the Advocacy of all Healthcare Professionals**

What should be done to improve advocacy of vaccines by HCPs both to the families they support and to their colleagues?  
**Led by EiP**

#### Focus Group B
13:15-13:50

**Working Group on Vaccine Hesitancy**  
**Overcoming Vaccine Hesitancy**

What should be done to overcome vaccine hesitancy? Strategies to deal with the anti-vaccine lobby, firefighting or proactivity  
**Led by EIWH**

#### Focus Group C
13:15-13:50

**Working Group on a Europe-wide Life Course Immunization Strategy**  
**A Europe-wide life course immunization strategy**

Designing a Europe-wide life course immunization strategy – blue sky thinking. What would it look like, what are the criteria, what are the economics? Is it feasible and desirable at this point in time?  
**Led by CLCI**

### Part 4
13:50 - 14:15

**Conclusions and Close**

Outlining of Ideas and Future Actions

13:50-14:05  
Spokesperson for each Focus Group to report back to Group

14:05-14:15  
Co-Chairs’ Summary and Close
CONFERENCE PROGRAMME

ABSTRACT BOOK
Abstracts Reviewers

Aixa Y Aleman-Diaz
Policy Advisor, WHO Collaborative Centre for International Child and Adolescent Health Policy, University of St Andrews, UK and HBSC Scotland

Mark Beattie
Professor, Consultant Paediatric Gastroenterologist, University Hospital Southampton, UK

Alberto Borraccino
Assistant Professor, Department of Public Health and Paediatrics, University of Torino and HBSC Italy

Michael Fitzgerald
Professor of Child and Adolescent Psychiatry, Ireland

Leanne Goh
Consultant in General Paediatrics and Paediatric Allergy, University College London Hospital, UK

Dirk van Gysel
Head of the Department of Pediatrics, O.L Vrouw Hospital Aalst. Board member and former Treasurer of the ESPD, Belgium

Kenneth J. Mack
Professor, President Child Neurology Society, Mayo Clinic, Child and Adolescent Neurology, USA

Colin Michie
Consultant Paediatrician, Royal National Orthopaedics Hospitals, Imperial and University College, UK

Francesc Palau
Director of the Institute for Pediatric Rare Diseases (IPER) and Head of the Genetics Department, Sant Joan de Déu Children’s Hospital. CSIC Research Professor and Visiting Professor Pediatrics, University of Barcelona, SPAIN

Roy K. Philip
Consultant Paediatrician and Neonatologist, Adjunct Clinical Professor of Neonatology, University Maternity Hospital Limerick & GEMS, University of Limerick, Ireland

Alan D. Rogol
Professor Emeritus, Pediatrics and Pharmacology, University of Virginia, USA

Damian Roland
Consultant and Honorary Associate Professor in Paediatric Emergency Medicine, University of Leicester and Leicester Hospitals, UK

Bob Sallis
Clinical Professor of Family Medicine, UC Riverside School of Medicine, USA, Co-Director, Sports Medicine Fellowship, Kaiser Permanente, Chair, Exercise is Medicine, USA

Penny Salt
Consultant Paediatrician and Allergist, University College London Hospital, UK

George Syrogiannopoulos
Professor and Chairman of Paediatrics at the University of Thessaly, School of Medicine in Larissa, Greece

Jutte van der Werff Ten Bosch
Professor of Pediatric Hematology, Oncology and Immunology, Paola Childrens Hospital, Antwerpen, Belgium

Excellence in Pediatrics Institute
Rue des Vignerons 1B, Case Postale 359, 1110 Morges 1 (VD), Switzerland
Abstracts

ORAL PRESENTATIONS

OP1: ORAL PRESENTATIONS: SESSION 1

Time: Thursday, 07/Dec/2017: 11:00am - 1:00pm • Location: Turin Hall

Presentations

ID: 154 / OP1: 1
Oral Presentation  Topics: General Pediatrics, Nutrition & Diets

INAPPROPRIATE INFANT FEEDING PRACTICE AND LOW BIRTH WEIGHT ASSOCIATED WITH NUTRITIONAL STATUS CHILDREN UNDER FIVE YEARS OLD IN GORONTALO RURAL AREA 2016
Fatimah Sania, Yun Istatik, Ikhwanuliman Putera, Dwi Mulia, Vania Tryannii, Daeng Fachrianzy, Syandriagius Rizky, Ruslyaraz
Ruslyaraz
Paguyaman Primary Health Care; saniafatima.cherid@gmail.com

Introduction: Malnutrition is a significant factor associated with more than half children mortality in the world. Food agricultural organization claims over 5 million death per year is caused by hunger and malnutrition. It is a world agenda to achieve sustainable development goals (SDGs) to end hunger, achieve food security, and improved nutrition and promote sustainable agriculture which one of the target is by 2030 end all form of malnutrition including achieving by 2025 the internationally agreed targets on stunting and wasting children under five years of age and address the nutritional needs of adolescent girls, pregnant, and lactating woman, and older persons. It is not an easy task to complete based on Millennium development goals evaluation, especially, in developing country like Indonesia. Gorontalo is one of the cities in Indonesia that has high wasted prevalence. Therefore, analysing infant feeding practice and other factors associated with nutritional status is needed to be evaluated.

Purpose: The objectives of the study is to investigate characteristic of mothers and children, and the implementation of infant feeding practice such as early initiation and exclusive breastfeeding, and nutritious complement feeding to children under five years and investigate association with child nutritional status.

Methods: An observational analytic cross sectional design was used to mothers of 6 – 59 month children. It is 92 extracted data questionnaires previously validated, including sociodemographic data, characteristic of mother and children, infant feeding practice data. Nutritional status has been plotted using WHO 2006 and PRIMA devices. Analysis was done by univariate analysis for descriptive and bivariate analysis using the Chi-Square or Fischer exact test to determine the significance and continue with multivariate analysis.

Results: There is a statistically significant relationship between low birth weight and wasted p 0.03 (OR 5.33, CI 95% 1.08 – 26.11) and in multivariate analysis p 0.00 (OR 15.58 CI95% 2.00 – 121.32), it is also statistically significant relationship between complementary feeding practice and nutritional status p 0.00 (OR 6.52, CI95% 1.76 –24.14) and in multivariate analysis p 0.02 (OR 4.76, CI95% 1.24-18.23).

Conclusions: Inappropriate infant feeding practices, in this case an introduction to complementary feeding after 6 month in Gorontalo Rural area and low birth weight, associated with wasted children.

ID: 178 / OP1: 2
Oral Presentation  Topics: Nutrition & Diets, Neonatal Nutrition

SCREENING OF 30 ANTIBIOTIC RESIDUES IN HUMAN MILK WITH MULTI-RESIDUE METHOD BASED ON CHIP TECHNOLOGY
Meltem Dinelyici1, Gonca Kilic Yildirim2, Ozge Aydemir3, Tugba Barsan Kaya3, Yasar Bildirici3, Kursat Bora Carman3
1Eskisehir Osmangazi University Faculty of Medicine, Department of Social Pediatrics, Turkey; 2Eskisehir Maternity and Children Hospital, Turkey; 3Eskisehir Osmangazi University Faculty of Medicine, Division of Neonatology, Turkey; 4Eskisehir Osmangazi University Faculty of Medicine, Department of Pediatric Neurology, Turkey; meltemayata@hotmail.com

Introduction: It is important to identify as well as other undesirable toxins and metabolites that may be present in the human milk and pass to the baby. To the best of our literature knowledge, there is no information about the human milk antibiotic residue levels in human milk.

Purpose: In this study, we planned to study the levels of antibiotic residues in human milk samples taken from mothers who have 7-90 days old babies, in Turkey.

Methods: Pregnant women who have been received antibiotic treatment during pregnancy were excluded. The presence of antibiotic prophylaxis with cefazolin sodium during labor has been noted. Human milk antibiotic residues have been evaluated with the Evidence Investigator™ system (Randox, UK), which is a multi-array biochip, semi-automated system, designed for research for evaluation of antibiotic residues and some toxins. The Eskisehir Osmangazi University Research Grant has supported this study.

Results: 83 mothers aged between 17 to 41 years (mean age 29.7 ± 6.2 years), have been enrolled. 56.6% of pregnant women have been C-section, 31 mothers have been received one dose antibiotic prophylaxis (first generation cephalosporin) and 18 mothers have received antibiotic treatment, maximum 7 days after delivery. 71 out of 83 human milk samples (85.5%) were positive for beta-lactams and 12 positive samples for quinolones (14.5%). Two positive samples for amphenicol, 2 positive for basitrasin, 5 positive samples for cefuroxime, 4 positive samples for polymyxine, one sample for sulfonamide, two positive samples for tobramycine have been noted. There are no differences between the positive antibiotic residues (for beta-lactams and quinolones) between mother received or not received antibiotics during labor and after. The presence of beta lactams or quinolones in human milk was not associated with the maternal dietary habits.

Conclusion: We found that majority of human milk samples includes beta-lactams or quinolones, while mothers did not receive these antibiotics during pregnancy and lactation. Previous studies showed that risks related to the presence of antimicrobials in food are multiple
Allergies in humans and possible development of antibiotic-resistant bacterial strains. Antibiotic residues in human milk might have an effect on early maintenance of intestinal microbiota composition. We plan to perform intestinal microbiota composition of newborn infants whom received human milk with or without antibiotic residues. Further strategies including the food safety and appropriate antibiotic use policy during pregnancy and lactation are needed.

Abstracts

**WHEAT AND IMMUNE SYSTEM: IS ALWAYS CELIAC DISEASE?**

Luca Pecoraro, Angelo Pietrobelli, Giulia Paiola, Giuseppe Giacintini, Laura Tenero
University of Verona, Pediatrics, Italy; lucepecoraro88@gmail.com

Introduction: 3 specific components of wheat have importance in wheat allergy: gliadin (α, β, γ, ω isoforms), a gliadin subunit (Tri a 19), a Lipid Transfer Protein (Tri a 14). There is an association between these recombinants and clinical symptoms: specifically, the specific components of the gliadin wheat and Tri a 19 are associated with severe allergic reactions and risk of anaphylaxis; Tri a 14 is implicated in mild allergic reactions, not at risk of anaphylaxis. In the suspect of wheat allergy, skin prick tests and prick-by-prick represent first-level tests; however, both tests have little specificity. It is necessary to use the determination of sIgE against wheat allergen (RAST) and its components (ImmunoCAP), which have low specificity but a high diagnostic sensitivity. Positivity of a single molecular component is required to diagnose wheat allergy.

Case Report: S. is a 6-month-old infant without noteworthy anamnestic elements. 2 hours after the introduction of the semolina, onset of urticaria, edema of the ear pads, repeated vomiting, with spontaneous resolution. Subsequently, food prick tests were performed with positive response only for wheat. Prick by prick with semolina was negative. After a month of weaning with diet excluding the food, a new dose of semolina was given: after 4 hours after intake, pallor, asthenia, in association, repeated vomiting, resolved about 1 hour after the onset of the symptoms. Afterwards, he continued weaning and diet without grain and derivatives, without clinical symptoms. At the age of 1 year, RAST for wheat and ImmunoCap for wheat components: sIgE: 2.33 kUA/L; Tri a 14: 3.69 kUa/L; gliadin: 0.36 kUa/L. Tri a 19 0.10 kUA/L.

Conclusion: Wheat allergy belongs to the group of gluten-related immune disorders, which also includes celiac disease and gluten sensitivity. There is no correlation between these pathologies because IgA of celiac disease and sIgE of wheat allergy share different epitopes. Starting from the described symptomatology, skin and laboratory tests and resolution of symptoms after wheat-free diet, the pathogenesis can be referred to wheat allergy; specifically Tri a 14 (3, 69 kAa/L) and gliadin (0.36 kUa/L). Differential diagnosis should be made with FPIES (Food protein-induced enterocolitis syndrome) for 2 reasons: the onset of symptoms 4 hours after the second introduction of the semolina (clinical symptoms attributable to mediated IgE reactions are seen about 1-2 hours after the introduction of the food) and the early age of onset of symptoms (the patient is an infant). Given the different pathogenesis, in the context of wheat allergy and the risk of anaphylaxis, it is important to have a proper diagnostic framework, which leads to appropriate therapy, represented by the use of a wheat protein-free diet and adenalin (when needed) with a plan of action. The purpose of the treatment should be represented by an adequate growth of the infant affected by allergy to wheat proteins; specifically, oats, corn, rice, millet, sage, quinoa, buckwheat are excellent substitutes of wheat proteins and have a very high degree of tolerability.

**A PARTLY FERMENTED INFANT FORMULA COMBINED WITH SCGOS/LCFOS RESULTED IN A LOWER INCIDENCE OF INVESTIGATOR-REPORTED INFANTILE COLIC IN HEALTHY TERM-BORN INFANTS**

Alfonso Rodriguez-Herrera1, Thomas Ludwig1, Hetty Bourtitius2, Kelly A Mulder3, Rocio Porcel4, Antonio Muñoz1, Massimo Agosti5, Gianluca Lista6, Luigi Tommaso Corvaglia7, Juan L. P. Navero8
1Instituto Hispalense de Pediatría (IHP), Seville, Spain; 2Danone Nutricia Research, Utrecht, The Netherlands; 3Servicio de Pediatría-Hospital Quiron, Barcelona, Spain; 4Hospital Clínico Universitario San Cecilio, Granada, Spain; 5Azienda Ospedaliera - Poli Universitario F. Del Ponte, Varese, Italy; 6SC Neonatología – Terapia Intensiva Neonatal, Istituti Clinici di Perfezionamento, Milan, Italy; 7U.O. Neonatal Intensive Care Unit, University Hospital, Bologna, Italy; 8Jefe de Servicio de Pediatría, Hospital Universitario Reina Sofia, Córdoba, Spain; Hetty.bourtitius@nutricia.com

Introduction: A partly fermented (LactofidusTM process) infant formula (IF) combined with short-chain galacto-oligosaccharides (scGOS) and long-chain fructo-oligosaccharides (lcFOS) has previously been reported to reduce infantile colic (derived from parent-reported crying duration) at 4 weeks of age and softer stools in healthy IF-fed infants.

Purpose: In this new randomised controlled trial, we further investigated in detail the effect of an IF combining a partly fermented IF with scGOS/lcFOS on gastrointestinal (GI) related parameters collected daily throughout the intervention period.

Materials and Methods: Healthy IF fed infants aged ≤28 days (n=200) were randomised to receive an IF combining 30% of a fermented formula (derived from a unique fermentation process, LactofidusTM) with scGOS/lcFOS (0.8g/100ml, 9:1) (active) or a non-fermented IF without scGOS/lcFOS (control) until 17 weeks of age. An exclusively breastfed reference group (n=100) was also included. The incidence of adverse events (AE) (including infantile colic) was reported by study investigators. Crying duration and frequency data were collected daily with a modified Baby Day Diary for the entire intervention period.

Results: Investigators reported infantile colic less frequently in the active group (1.1%) compared to the control group (8.7%) (P=0.02, Fisher’s exact test), and was reported for 1.0% of infants in the breastfed reference group. Daily total crying duration was highly variable with no statistically significant difference between study product groups (P>0.05, Mann-Whitney U test), with the highest median (Q1-Q3) of 1.3 (0.5-2.3), 1.3 (0.5-2.2), and 0.9 (0.4-1.8) h/d at 5 weeks of age for the active, control, and breastfed groups, respectively. Preliminary post hoc analyses revealed that crying behaviour was impacted by the age of study product introduction. In the group of infants that received the study product for the first time after one week of age, there was a lower incidence of excessive crying (>3h/d) for infants who received the active IF when compared to the control IF. The intervention effect was not significantly different in the group of infants that started on study product before one week of age.

Conclusion: In this study, investigators reported fewer cases of infantile colic (as AEs) in infants receiving a partly fermented IF combined with scGOS/lcFOS. Additional analyses of daily crying duration also demonstrated a lower incidence of excessive crying in infants that were introduced to the formula after one week of age.
HEPATOCEREBRAL INVOLVEMENT IN AN ARAB INFANT WITH MITOCHONDRIAL DNA DEPLETION SYNDROME IN KING ABDULLAZIZ UNIVERSITY HOSPITAL: A CASE REPORT

Shatha Mohammed Albokhari
King AbdullAziz University Hospital, Saudi Arabia; halbokhari@kau.edu.sa

Introduction: Mitochondrial DNA depletion Syndrome (MDS) with hepatocerebral involvement is a Autosomal Recessive disorder that is frequently hereditary, which is uncommon in the Middle East and Arab region. We report an Arab infant with hepatocerebral form of (MDS) as a result of DGOUK gene mutation compared to similar cases reported from other regions. Our aim is to share our experience and challenges in managing this case and to compare the clinical, laboratory and radiographic findings of similar reported cases from other regions.

Case Report: We report this 3-month-old female Arab infant who presented to us with jaundice that began in the second day of life, fever and vomiting. She was the second offspring of a first-degree cousin couple who had history of a baby who died at the age of 3 days due to unknown cause. She was found to have on examination horizontal nystagmus, jaundice and hepatomegaly that was progressive with time. Given the history of consanguinity and neonatal death of a previous sibling, the possibility of Genetic/Metabolic disorders was in consideration. The infant had markedly disturbed liver function including coagulation, which was getting worse with time(table 1) In spite of conservative management and NG feeding due to failure to thrive. Her virology screen was normal as well as her metabolic screen (amino acids), abdominal ultrasound showed hepatomegaly with normal kidneys. MRI brain was normal, Liver biopsy showed non specific change with evidence of giant cell hepatitis. Genetic analysis for DGOUK gene mutation with homozygous variant of uncertain significance c.427T>C (p.Ser143Pro). She passed away at the age of 7 month due to uncontrolled bleeding in spite of conservative therapy.

Conclusion: This report describes the clinical, laboratory and radiographic findings of our 3-month-old infant with mitochondrial DNA depletion syndrome with hepatocerebral involvement; DGOUK gene mutation a condition that is reported in few countries but uncommon in the middle east and Arab region. This Syndrome needs more attention in order to provide suitable management and precisely parental counselling in future pregnancies.

Table 1: Patient baseline characteristic

<table>
<thead>
<tr>
<th>Laboratory findings:</th>
<th>Normal level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct bilirubin</td>
<td>0-5 mmol/L</td>
</tr>
<tr>
<td>Lactic acid</td>
<td>0.4-2.0 mmol/L</td>
</tr>
<tr>
<td>Alpha fetoprotein</td>
<td>&lt;150 ng/mL</td>
</tr>
<tr>
<td>Prothrombin time (PTT)</td>
<td>11-14 sec</td>
</tr>
<tr>
<td>Partial thromboplastin time (PTT)</td>
<td>29-40 sec</td>
</tr>
<tr>
<td>Aspartate aminotransferase (AST)</td>
<td>15-37 U/L</td>
</tr>
<tr>
<td>Alanine aminotransferase (ALT)</td>
<td>12-78 U/L</td>
</tr>
<tr>
<td>Gamma glutamyl transferase (GGT)</td>
<td>5-85 U/L</td>
</tr>
</tbody>
</table>

Table: Radiographic findings:

<table>
<thead>
<tr>
<th>Radiographic findings:</th>
<th>Abdominal ultrasonography</th>
<th>Brain MRI</th>
<th>Liver biopsy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilateral echogenic kidneys with mild fullness</td>
<td>Normal</td>
<td>Gigant cell neonatal hepatitis</td>
<td></td>
</tr>
</tbody>
</table>
TREATMENT OF HYPERCALCEMIA: A CASE SERIES
Kene Ebuka Maduemem¹, Comfort Adedokun²
¹Department of Paediatrics, Cork University Hospital, Cork, Ireland; ²Department of Emergency Medicine, Cork University Hospital, Cork, Ireland; ebukakene@rocketmail.com

Introduction: Hypercalcaemia is an uncommon metabolic disorder in children. Clinical features of hypercalcemia may be nonspecific in neonates and infants, and is often discovered when a chemistry panel is obtained to evaluate failure-to-thrive. The differential diagnosis is complex and varies with age at presentation. Treatment includes hyperhydration, loop diuretic, steroids, bisphosphonates and treatment of underlying disease.

Case Report: We describe the diagnosis, treatment and outcome of 8 children (2 males, 6 females) with hypercalcaemia seen in a regional paediatric centre. This cohort has a median age of 0.99 (0.07 – 14.70) years. Presenting features were failure to thrive in 4/8 (50%) cases, incidental renal ultrasound finding post urinary tract infection in 3/8 (37%), abdominal symptoms in 1 case and incidental severe hypercalcaemia on routine work up of an unstable neonate in 1 case. They presented with a median corrected serum calcium level of 3.4 (2.96 - 4.3) mmol/L. The aetiology comprised Williams-Beuren syndrome (WBS) 3/8 (37%), primary hyperparathyroidism 1/8 (12%), idiopathic infantile hyperparathyroidism (IIH) 4/8 (50%). Hypercalciuria was evident in 1 case. All cases received intravenous fluids and loop diuretic (furosemide). 4/8 (50%) received oral prednisolone for a median duration of 40 (7 - 120) days. Intravenous pamidronate was used in 4/8. The case of primary hyperparathyroidism underwent parathyroidectomy for solitary adenoma. All cases were managed on low calcium diet. Bilateral medullary nephrocalcinosis was the most common complication in 7/8 (87%). Long-term follow up showed normalised serum calcium with persistent nephrocalcinosis.

Conclusion: Traditionally, treatment of hypercalcaemia involves hyperhydration, loop diuretics, glucocorticoids and low calcium diet. Bisphosphonates use is gaining more recognition in Paediatrics. It restored normocalcaemia in half of the cases with recalcitrant hypercalcaemia.

SEASONAL VITAMIN D LEVELS AND PARATHYROID HORMONE VARIATIONS OF 90046 CHILDREN LIVING IN A SUBTROPICAL CLIMATE
Ozlem Naciye Sahin¹, Muhittin Serdar², Mustafa Serteser³, Aysel Ozpinar², Ibrahim Unsal²
¹Acibadem University School Of Medicine, Department of Pediatrics, Turkey; ²Acibadem University School of Medicine Department of Medical Biochemistry; ozlemnaciyeatasahin@yahoo.com

Introduction: Humans obtain >80% of their vitamin D via exposure to the UV-B component of sunlight. Vitamin levels show significant variation in the circulating levels of 25-hydroxyvitamin D3 in nonequatorial regions. The normal vitamin D levels are considered to vary for different biological needs but >50nmol L⁻¹ (37.5-50 nmol/L) L may be insufficient and <20 ng/mL (37.5 nmol/L)deficient(4). Determination of 25 (OH)D levels in children and accurate diagnosis of deficiency may involve methodological and clinical challenges due to variations in season, body mass index(BMI) and gender(5,6,7,8,9). In addition to these variances different populations may show a different threshold for PTH activation at different vitamin D cut off levels.

Purpose: This study was performed to evaluate the seasonal 25(OH) vitamin D levels and its associations with parathyroid hormone (PTH) of Turkish children at all pediatric ages and to assess the critical diagnostic threshold level for 25(OH)D deficiency in our pediatric population.

Materials and Methods: Our study population included 90046 children, 47928 female and 42118 male subjects. Serum 25(OH)D and PTH levels were measured by mass spectrometry method and by electrochemiluminescence immunoassay, respectively. As part of routine tests serum concentrations of predefined tests at Acibadem LAMBED Clinical Laboratories (Turkey) had been performed, between 2005 and 2015. Serum 25(OH)D concentrations were measured by Agilent Rapid Res 1200 LC system and Agilent 6460 triple quadruple mass spectrometer (Agilent Technologies, Santa Clara, CA). PTH concentrations were determined by an electrochemiluminescence immunoassay with Elecsys analyzer (Roche Diagnostics, Mannheim, Germany). For PTH, values greater than 200 pg/mL were excluded for it corresponds to three-fold higher than the upper limit of normal. Extreme values were excluded by Studentized procedure leaving 47928 female and 42118 male test results eligible for vitamin D, and 1798 female and 1727 male test results eligible for PTH data analysis. 3525 pediatric data sets were evaluated for PTH and vitamin D with correlation analysis.

Conclusion: This is the first analysis of adherence in a real-world clinical setting using easypod™ Connect. We showed an association between high adherence and high easypod™ data transmission rates. Despite a decreased number of patients in the high-adherence group over time, after 2 years of follow-up the proportion of high-adherence patients was still high. As high adherence is associated with the lowest non-usage ratio, quantifying this ratio could help to track drug lost or discarded over time. Further analysis of these data will provide additional insights into patient behaviours.
OP1: ORAL PRESENTATIONS: SESSION 1

Results: The correlation analysis of 90046 serum 25(OH) D levels (Mean±SD, 25.31±15.52) and parathyroid hormone levels (Mean±SD, 31.83±16.06) that belong to 3525 of the study population revealed a sinusoidal pattern (Fig.1). Considering vitamin D levels in preschool and school children, preschool children had significantly higher vitamin D levels than that of school children 25(OH)D (mean 25.31±15.52), PTH (mean 31.83±16.06) (p<0.0001), (Fig.2). Analysis of 25(OH)D and PTH hormone levels demonstrated a seasonal sinusoidal pattern, with a significant increase in June, a peak in August, and a decrease to lower levels in December. Comparison of PTH levels between March, April and July, and July and November revealed an significant difference as their p values were as p<0.023, p<0.032, p<0.033 respectively. Vitamin D levels were significantly lower in female subjects (mean ± SD, 22.3 ng/mL ±14.02) while females had significantly increased PTH levels (mean ± SD, 32.7± 16.8) accordingly when compared to male subjects for vitamin D (mean ± SD, ng/L, 25.25±13.4) and PTH levels (mean ± SD, 31.04± 16.3) (p<0.0001). Age dependence of 25(OH)D and PTH levels were examined in 90046 pediatric subjects and highest levels of 25(OH)D was observed in first year (33 ng/mL, IQR:13.4) and the lowest level was observed at age 18 (15ng/mL, IQR:16). PTH levels were statistically increased, concomitantly with the gradual decrease of 25(OH)D from age one through age 18.

Conclusion: Taking into account the global health burden of vitamin D deficiency and its complications, even in sunny countries, threshold for PTH activation at different vitamin D cut off levels should be documented and public policies regarding sun exposure rights of children with their caregivers should be set.

ID: 232 / OP1: 9
Oral Presentation  Topics: Allergy, Immunology & Pulmonology

ATOPIC DERMATITIS: CAUSE OR CONSEQUENCE OF ALLERGEN SENSITIZATION?
Cátia Pereira1, Montserrat Álvaro2, Carmen Riggiioni2, Yadira Gordon2, Jaime Lozano2, Adrianna Machiniena2, Maria del Mar Folqué2, Maria Teresa Giner2, Mónica Piquer2, Ana Maria Plaza Martín2
1Department of Pediatrics, Hospital Santa María (CHLN), Lisbon, Portugal; 2Pediatric Allergy and Clinical Immunology Department, Hospital Sant Joan de Déu, Universitat de Barcelona, Barcelona, Spain; catiapereira@gmail.com

Introduction: Atopic dermatitis (AD) is a chronic inflammatory disease, affecting 10% of children. Onset occurs during the first year of life in 85% of cases, before allergic disease develops. Etiology remains unknown and the role of food and aeroallergens is controversial. The "atopic march" theory suggests that early onset and moderate to severe AD may lead to subsequent allergic diseases, probably related to a skin barrier dysfunction.

Purpose: To characterize a cohort of children with moderate to severe AD and to assess the development of food and respiratory allergy in these patients.

Material and Methods: Retrospective review of medical records of children admitted for moderate to severe AD from birth to 12 months, in a Pediatric Allergy Department, between January 2011 and December 2015. Demographic data, risk factors for allergic disease, age of onset of AD, sensitization to food and aeroallergens and development of food allergy, asthma and allergic rhinitis were analyzed.

Results: Twenty-five patients with diagnosis of moderate to severe AD were included. Fourteen patients were male (56%). Median age at first consultation was 8 months (range: 4-12). Median time of follow-up was 4.6 years (range: 2.2-6.4). Twenty patients (80%) had first-degree family history of atopy. Median age of onset of AD was 2 months (range: 1-5). Fifteen patients (60%) were breastfed until the median age of 5 months (range: 1-7). Eighteen patients (72%) had documented food allergen sensitization at a median age of 7 months (range: 3-14), which included egg (16/18), cow’s milk proteins (13/18), nuts (4/18), fish (2/18), seafood (1/18), fresh fruits (1/18), vegetables (1/18) and soya (1/18). Diagnosis of food allergy was made in 12 patients (48%) at a median age of 16 months (range: 6-36); egg (10/12), cow’s milk proteins (4/12), nuts (3/12), fresh fruits (2/12), vegetables (2/12), seafood (2/12) and fish (1/12). Five of these allergic patients (5/12: 42%) presented multiple food allergies. Six patients (6/25: 24%) were diagnosed with respiratory allergy at a median age of 5 years (range: 3-6); asthma (5/6) and allergic rhinitis (5/6); all of them sensitized to dust mites.

Conclusions: Our results revealed that food allergy, namely egg allergy, is very frequent in patients with early onset and moderate to severe AD, as postulated by the "atopic march" theory. Regarding to respiratory allergy, we consider the follow-up period of our study too short to take conclusions. More studies are needed to assess the impact of treatment of AD in the prevention of sensitization and development of subsequent allergic diseases.

ID: 176 / OP1: 10
Oral Presentation  Topics: General Pediatrics

PAEDIATRIC PRACTICAL STUDY DAY FOR NEWLY QUALIFIED DOCTORS, AN EXPERIENCE FROM A DISTRICT GENERAL HOSPITAL IN THE UK
Erin Butterworth, Pratik Solanki, Andrew Foster, Nickolaos Cholidis
Princess Alexandra Hospital NHS Trust, United Kingdom; erin.r.butterworth@gmail.com

Introduction and Purpose: Becoming a qualified doctor remains a daunting task for the majority of final year medical students (1) particularly for those starting on paediatrics. Indeed, a number of specialities at Princess Alexandra Hospital, a district general hospital in the UK, are reliant on first year doctors, known as Foundation Year 1 (Fy1) doctors, to cannulate, perform phlebotomy and assess children with no previous training. Thus, we created a Paediatric Fy1 training day with the emphasis on hands-on teaching and practical skills.

Method: We hosted a pilot course in July 2016 and 25 new Fy1s attended. Our initial format involved lectures, large group practical procedures and high fidelity simulation. Although the feedback was positive there was a request for smaller groups and more practical experience. Thus, we adapted the course for July 2017 to address these issues for which 24 new doctors attended. After 2 interactive lectures, participants were divided into groups of 4 and rotated around 6 workshops, each 30 minutes long. Feedback and pre- and post-course questionnaires exploring confidence were collected. A paired T-test was performed to explore statistical significance.

Results and Feedback: The feedback from the course was very positive.
OP1: ORAL PRESENTATIONS: SESSION 1

Feedback scale: 5= Very good; 4= Good; 3= Average; 2= Poor; 1=Very Poor

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Quality</td>
<td>4.7</td>
<td>5</td>
</tr>
<tr>
<td>Overall Delivery</td>
<td>4.7</td>
<td>5</td>
</tr>
</tbody>
</table>

Results for individual stations:

<table>
<thead>
<tr>
<th>Station</th>
<th>Content Mean</th>
<th>Mode</th>
<th>Delivery Mean</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sick Child Lecture</td>
<td>4.85</td>
<td>5</td>
<td>4.85</td>
<td>5</td>
</tr>
<tr>
<td>Safeguarding Lecture</td>
<td>4.65</td>
<td>5</td>
<td>4.65</td>
<td>5</td>
</tr>
<tr>
<td>Prescribing workshop</td>
<td>4.9</td>
<td>5</td>
<td>4.9</td>
<td>5</td>
</tr>
<tr>
<td>Breaking Bad News workshop</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>ENT Examination workshop</td>
<td>4.5</td>
<td>5</td>
<td>4.65</td>
<td>5</td>
</tr>
<tr>
<td>Safeguarding workshop</td>
<td>4.8</td>
<td>5</td>
<td>4.8</td>
<td>5</td>
</tr>
<tr>
<td>Sepsis high-fidelity Simulation</td>
<td>4.75</td>
<td>5</td>
<td>4.8</td>
<td>5</td>
</tr>
<tr>
<td>Practical Skills</td>
<td>4.35</td>
<td>5</td>
<td>4.5</td>
<td>5</td>
</tr>
</tbody>
</table>

In regards to the pre- and post-course questionnaires:

<table>
<thead>
<tr>
<th>Confidence in….</th>
<th>Pre-course score</th>
<th>Post-course score</th>
<th>Increase in confidence</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing unwell children</td>
<td>2.24</td>
<td>3.56</td>
<td>1.32 (28%)</td>
<td>P&lt;0.0001</td>
</tr>
<tr>
<td>Taking blood from a child</td>
<td>1.82</td>
<td>3.44</td>
<td>1.62 (32%)</td>
<td>P&lt;0.0001</td>
</tr>
<tr>
<td>Talking to children and their parents</td>
<td>3.29</td>
<td>4.00</td>
<td>0.71 (14%)</td>
<td>P=0.012</td>
</tr>
<tr>
<td>Prescribing for children</td>
<td>2.24</td>
<td>3.61</td>
<td>1.38 (28%)</td>
<td>P&lt;0.0001</td>
</tr>
</tbody>
</table>

Scale from 1 (not confident) to 5 (very confident)

Conclusion: We believe that such courses are highly valued by newly qualified doctors and will help in their adjustment to working life, especially in unfamiliar specialities like paediatrics. This project has been discussed with the East of England Deanery for Paediatrics who stated funding will be made available for future events.

ID: 286 / OP1: 11  
Oral Presentation  
Topics: General Pediatrics

EFFECT OF KINESIO® TAPING APPLICATION ON CHEST EXPANSION IN A CHILD WITH JOINT HYPERMOBILITY SYNDROME

Deniz Tuncer, Hülya Nilgün Gürses, Kamer Unal Eren, Busra Kepenek Varol  
Bezmialem Vakif University, Turkey; tuncerdeniz82@gmail.com

Introduction: Joint Hypermobility Syndrome (JHS) refers to the increased passive or active movement of a joint beyond its normal range. Kinesio Taping (KT) is a relatively new therapeutic approach applied for improving muscle function and circulation, decreasing pain, and increasing balance and functional capacity by supporting joint stability. The aim of this case report is to examine the acute effects of KT on chest expansion in a child with JHS.

Case Report: A 7-year-old girl with joint hypermobility syndrome with a Beighton score of 8, who was referred to the Department of Pediatric Physiotherapy and Rehabilitation was evaluated. A clinical and physical history was obtained, pulmonary function test (PFT) and chest-circumference measurements were performed. The patient had moderate-severe restrictive type respiratory limitation, which restricts the expansion of the thorax according to the previous PFT. KT were applied to M. Diaphragmaticus, M. Sternocleidomasteideus, M. Scalenus, M. Rectus Abdominus, M. Obliquus Internus / Externus and M. Transversus Abdominis with muscle facilitation technique. Thoracic expansion was evaluated form axillar, epigastric and subcostal region with a tape measure before and after taping. The measurements were performed while making deep inspiration and forced expiration. The results of the chest circumferential measurements taken from axillar, epigastric, and the subcostal regions, as well as deep inspiration and forced expiration, are shown in Table 1.

<table>
<thead>
<tr>
<th>Before Kinesio® taping (cm)</th>
<th>After Kinesio® taping (cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deep inspiration</td>
<td>Forced expiration</td>
</tr>
<tr>
<td>Axillary</td>
<td>59</td>
</tr>
<tr>
<td>Epigastric</td>
<td>55</td>
</tr>
<tr>
<td>Subcostal</td>
<td>52</td>
</tr>
</tbody>
</table>

Table 1: Chest circumferential measurements

Conclusion: However there was no difference between axillar and epigastric regions measurements following the application of KT, the measurements from subcostal region increased in deep inspiration and forced expiration. As a result of the findings obtained from the case; the acute effect of KT applied to the respiratory muscles of our case with JHS showed an increasing in the rib cage expansion. KT applications
with physiotherapy suggest that it may be beneficial for the development of chest wall flexibility. In the light of this finding larger sample studies, which display the effects of KT on chest expansion in children with JHS are needed. There is no conflict of interest.

OP2: ORAL PRESENTATIONS: SESSION 2

PEDIATRIC CRITICAL CASES ADMITTED TO INTENSIVE CARE UNITS FROM THE PEDIATRIC EMERGENCY DEPARTMENT
Yu-Jun Cheng, Wen-Chieh Yang, Chun-Yu Chen, Han-Ping Wu
Changhua Christian Hospital, Taiwan; june@ccch.org.tw

Introduction: Admission of pediatric patients from the emergency department (ED) to the intensive care unit (ICU) may indicate an urgent clinical condition requiring critical care. The outcome of ICU treatment is also related to the adequacy of the initial ED management. Understanding of the epidemiologic data of critically ill children presenting at the ED may help expedite accurate clinical assessments and decision-making on intensive care unit (ICU) admission.

Purpose: This study aimed to investigate the epidemiologic patterns of pediatric critically ill patients presenting to the ED and the etiologies of ICU admission.

Materials and Methods: This retrospective study of all children aged less than 18 years presenting with critical illnesses to the ED was conducted in a tertiary medical center during the 5-year study period. All patients transferred to the ICU from the ED were included without distinction. Etiologies of the ICU admissions were analyzed by various age groups. Children were divided into 3 groups according to age: young age (<5 years), school age (>5 years to up to 12 years), and adolescent (>12 years to 18 years).

Results: Of the 2978 critically ill children transferred to the ICU from the ED, emergency surgeries were performed in 1027 cases (34.5%). The mean duration of hospitalization was 12.5 days and the mean length of ICU stay was 5.6 days. Infectious/parasitic diseases, congenital abnormalities, and certain complications originating in the perinatal period were more common in young-aged children than adolescents (p < 0.001). However, injury and poisoning, mental disorders, endocrine, nutritional, diseases of the circulatory system, and metabolic diseases, and immunity disorders were more common in adolescents than school-aged children and young aged children (p < 0.001). Diseases of the nervous system and sense organs, mental disorders, diseases of the digestive system, diseases of the respiratory system, and diseases of the musculoskeletal system and connective tissue were more predominant in the school-aged children (p < 0.05). Moreover, the most common of diseases was respiratory distress syndrome in neonates (13.6%) followed by bacterial pneumonia (9.6%) and status epilepticus (6.9%). There were 269 pediatric critically ill patients with mortality. Male was more predominant than female (p < 0.001).

Conclusions: Epidemiologic analysis may provide primary clinicians to identify significant differences in admission rates based on different etiologies of various age groups.

QUALITY OF LIFE AND HEALTH NEEDS ABOUT TRANSITIONAL CARES FROM PEDIATRIC TO ADULT AGE IN MCCUNE-ALBRIGHT SYNDROME
Daniele Tessaris1, Patrizia Matarazzo1, Valter Dal Pos1, Luisa de Sanctis1
1Pediatric Endocrinology, Regina Margherita Children Hospital, University of Turin, Torino, Italy; *European Association Friends of McCune-Albright Syndrome, Torino, Italy; daniele.tessaris@unito.it

Introduction: McCune-Albright Syndrome (MAS) is a rare congenital sporadic disorder with an estimated prevalence ranging from 1 in 1,000,000 to 1 in 100,000. MAS is caused by a post-zygotic somatic activating mutation of GNAS gene resulting in an increased Gsα protein signaling leading to a scattered hyperfunction of bone cells and endocrine tissues with a wide phenotypic spectrum.

Purpose: The study analyzes quality of life and health needs about transitional care from paediatric to adult age.

Materials and Methods: We distribute anonymous semi-structured questionnaires from EAMAS (European Association of McCune-Albright Syndrome) mailing list to MAS patients over 18 years old. We analyze data about clinical manifestations, comorbidities, professional occupation, emotional and sexual bonds, clinical assistance, social and psychological support.

Results: We collect data from 15 questionnaires filled out by 2 male patients and 13 female patients, average age at evaluation 31.3 years old (range from 18 to 58). All patients have poliostotic fibrous dysplasia, 10 patients previous peripheral precocious puberty, 3 hyperthyroidism, 1 GH hypersecretion and 3 patients hypophosphatemic ricket. 13 of 15 patients (86%) continued to receive health cares during adult age: 8 from paediatric endocrinologist, 2 from paediatric orthopaedics, 3 from paediatric neurosurgeons; only in 3 case from adult endocrinologists. 13 patients have walking impairment, 3 visual defects, 1 hearing deficit, 4 aesthetic problems due to craniofacial fibrous dysplasia. Pain affected 13 on 15 patients with average 6.9 score (0-10 scale); 10 patients used pharmacological therapy, 4 pharmacological and non-pharmacological therapies, 1 patient no therapy: average subjective response was 5.0 (0-10 scale). Job activities (9/15 patients) and emotional/sexual bonds (13/15 patients) are most compromise areas. Quality of life is defined very good from 1, good from 5, acceptable from 7, poor from 2 patients. Only 8 (53%) declare to have relevant clinical and psychological support at evaluation-time.

Conclusion: Transitional cares from paediatric to adult age represent a difficult moment, especially for rare diseases as MAS: it is desirable to strengthen management in this age, expanding clinical and patient networks.
**SYSTEMATIC LITERATURE REVIEW IN ADOLESCENTS WITH CHRONIC DISEASES: (HEALTH-RELATED) QUALITY OF LIFE AND PSYCHOSOCIAL FACTORS**

**Teresa Cristina Santos**, **Margarida Gaspar de Matos**, **Celeste Simões**, **Isabel Leal**, **Maria Ceu Machado**

1William James Center for Research, ISPA - Instituto Universitário, Lisboa, Portugal; 2FMH, Faculdade de Motricidade Humana (Projecto Aventura Social-Social Adventure Team)/Universidade de Lisboa, Portugal; 3ISAMB, Instituto de Saúde Ambiental, Faculdade de Medicina, Universidade de Lisboa, Portugal; 4FM, Faculdade de Medicina/Universidade de Lisboa; Departamento de Pediatria do Hospital de Santa Maria, CAML, Centro Académico de Medicina de Lisboa, Portugal; gaudi_t@hotmail.com

**Introduction:** Living with a chronic disease in adolescence can represent a major challenge for adolescents and it may place them at higher risk for vulnerable health outcomes. Nevertheless, the impact of chronic disease on Health-related Quality of Life (HRQoL) and psychosocial factors in adolescence is a complex phenomenon, frequently with controversial results. Despite the increasing research in this area, studies on the relevance of psychosocial factors are still needed.

**Purpose:** Inspired by the vast literature on chronic diseases and also on previous studies that explored and characterized Quality of Life (QoL) and psychosocial factors in chronically ill Portuguese adolescents at a national-representative level (using the cross-sectional and international survey Health Behaviour in School-aged Children - HBSC 2010), the goal of the present review is to examine recent literature on the impact of living with a CD in adolescence on quality of life (QoL), health-related quality of life (HRQoL) and psychosocial factors.

**Materials and Methods:** The literature review of articles was conducted and identified through PubMed, PsyINFO and PsycARTICLES. Original research papers, published between 2010 and 2015, peer-reviewed; with no restrictions regarding the format/source of interventions and including adolescents from 13 to 18 years old were included. The following sets of keywords were used for reference tracing combined with the Boolean Operator ‘AND’: 1) “chronic illness” OR “chronic disease”; 2) “quality of life” OR “health-related quality of life”; 3) “psychosocial, factors”; 4) “adolescent”.

**Results:** Contradictory results were found in the final included eighteen papers, and most indicated a significantly higher risk of impairment on QoL/HRQoL and psychosocial factors, whereas others reported a significantly lower risk of impairment (emphasizing possible protective factors), or no significant differences. It was also observed heterogeneity in the assessment procedures and substantial difficulties in considering adolescence as a single/independent group.

**Conclusion:** The heterogeneity and the higher risk of impairment observed reinforce the need to work towards consensual procedures, which allow for more accurate comparisons between studies. In addition, it is underlined the challenge to find more effective interventions. Moreover, it is highly suggested the need to routinely assess HRQoL/psychosocial factors within an individualized framework emphasizing potential protective factors, to considered adolescents as a single/independent group, and, to increase youth’s participation in their own adaptation process and, generally, in health promotion. These are possible future directions that could provide multidisciplinary responses towards the improvement of HRQoL and psychosocial care in chronically ill adolescents.

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**OP2: ORAL PRESENTATIONS: SESSION 2**

**ID: 202 / OP2: 2**  
**Oral Presentation**  
**Topics:** Adolescent Health Choices, Adolescent Wellbeing

**WELLBEING INEQUALITIES IN ADOLESCENTS BEFORE AND AFTER THE RECESSION: PARENTAL UNEMPLOYMENT AS A SHAPING FACTOR**

**Diana Frasquilho, Margarida Gaspar de Matos**  
Aventura Social/HBSC Portugal, Portugal; diana.frasquilho@hbsc.org

**Introduction:** The economic recession that started in 2008-2009, provides an opportunity to study variations in the wellbeing of adolescents and the associations with their day-to-day living conditions.

**Purpose:** This study aims to compare the levels of adolescents’ wellbeing in 2006, 2010 and 2014 according to parental employment status, to analyze the extent of vulnerability to lower wellbeing that adolescents face during economic recession periods.

**Materials and Methods:** A repeated cross-sectional study was undertaken. Data from the Portuguese Health Behaviour in School-aged children Survey was used to compare levels of wellbeing among adolescents with employed and non-employed parents, for the years 2006-2010 and 2014, corresponding to periods prior to, during, and after the economic recession. We calculated the proportion of adolescents reporting poor wellbeing according to parental employment status and adjusted for sociodemographic factors.

**Results:** Lower rates of reported wellbeing were found among the adolescents with unemployed parents, and such association increased during the period of the economic recession.

**Conclusion:** Parental unemployment may be a driver for further adolescents’ inequalities during economic recessions; thus, further research is needed and, prevention and interventions are warranted to help protect the well-being of the most vulnerable adolescents.

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**OP2: ORAL PRESENTATIONS: SESSION 2**

**ID: 195 / OP2: 3**  
**Oral Presentation**  
**Topics:** Adolescent Mental Health, Adolescent Wellbeing

**HEALTH LITERACY ASSESSMENT IN 13- TO 17-YEAR OLD AUSTRIANS: RESULTS AND MEASUREMENT PROBLEMS**

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**Introduction:** Health literacy (HL) has received growing attention in the literature over the past 15 years for its critical role in health education and promotion. In Austria, the concept attracted the attention of political stakeholders after the results of the European Health Literacy Survey (HLS-EU) had been presented. From then on, a lot of efforts and resources were put in HL assessment and improvement.

**Purpose:** We were asked to assess the HL of Austrian adolescents using the HLS-EU concept within the Health Behaviour in School-aged Children (HBSC) study, which takes place every four years.
OP2: ORAL PRESENTATIONS: SESSION 2

Materials and Methods: The HLS-EU measurement model can be conceived of as a 12-cell matrix combining the key processes of accessing, understanding, appraising and applying health-related information with the three domains healthcare, disease prevention, and health promotion. We used the 16-item questionnaire which had been developed by HLS-EU researchers from the original 47-item questionnaire, pilot-tested it in a sample of 72 older children and adolescents and changed some wordings to be easier understood by our target group. The 16 items were statements about health-relevant tasks, and respondents were asked to judge whether those tasks were "easy" or "difficult" for them. We extended this 2-category response scale by a third category, which was "I don't know". Data were collected in the HBSC survey of 2014.

Results: We obtained data from 3,050 adolescents aged 13, 15 and 17 years and attending different types of school all over the country. The tasks most subjects found difficult to understand or handle refer to mental health problems, and the tasks the least subjects found difficult to understand or handle refer to unhealthy lifestyles and taking medication. On the average, one fifth of adolescents chose the response category "I don't know", but this varied largely across items, ranging from 7% ("following the instructions on medication") to 42% ("finding information on treatments of illnesses that concern you"). Therefore, it was questionable whether it was right to use the HL global score algorithm suggested by HLS-EU researchers, and to equate the "I don't know" with the "difficult" responses. Doing so, only 37% of Austrian adolescents would have an adequate HL.

Conclusion: Future work should be invested in validating HL instruments for use in children and adolescents. To promote HL in this target group, its incorporation into school curricula would be a good and practical approach.

ID: 277 / OP2: 5
Oral Presentation Topics: Obesity & Physical Activity

EATING AND PHYSICAL ACTIVITY HABITS IN CHILDREN AND ADOLESCENTS AND THEIR CORRELATION WITH OVERWEIGHT AND OBESITY
Sara Rocha1, João Soares Ferreira2, Pedro Mantas1, Ana Luisa Martins1, Nuno Magalhães2, Clarisse Aguiar2, Rafaela Coelho2, Maria Ema Duarte2, Liza Aguiar1
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Introduction: Alongsidethe increasing incidence of childhood obesity, are changes in eating habits and physical exercise. Greater consumption of processed food products, sedentary lifestyles and reduced physical activity are habits that tend to extend into adulthood, highlighting the importance of raising awareness and adopting preventive measures.

Purpose: This study aims to evaluate the eating and physical activity habits of children and adolescents (3-17 years) observed in Child Health Surveillance Consultations in a local Family Health Unit and their correlation with overweight and obesity.

Methods: Questionnaire about eating habits, physical activity and socio-economic status completed by parents or self if older than 14 years, after informed consent, for a period of 3 months. Anthropometric measurements, for BMI calculation, were carried out. Statistical analysis was performed on Statistical Package for the Social Sciences®, comparing the two groups (normal body mass index (BMI) versus overweight/obesity).

Results: We had a sample of 117 individuals, 55.6% females, with a mean age of 9 (±4.4) years, 69.2% with a normal BMI. Regarding physical activity and sedentary behaviours, we found a statistically significant difference in the regular practice of structured exercise (p=0.007), free physical activity for at least one hour a day (p=0.003) and screen time for at least two hours a day (p=0.03), all of them favoring the normal BMI group. Among eating habits, only the daily consumption of cookies stood out (p=0.008) with prejudice to the overweight/obesity group. Also, hours of sleep seem to be related with BMI, with the normal BMI group sleeping 35 more minutes than the overweight/obesity group (p=0.01). The parents’ educational level may have a relationship with BMI as well, with the highest level in the normal BMI group (p=0.02).

Conclusion: Physical activity seems to have a greater impact on BMI than eating habits, emphasizing the importance of developing and promoting measures to stimulate regular physical exercise and discourage sedentary behaviours, at home and educational institutions, in order to reduce the incidence of overweight and obesity, without neglecting the importance of a healthy diet on overall health.

ID: 223 / OP2: 6
Oral Presentation Topics: Obesity & Physical Activity

EFFECTS OF VITAMIN D SUPPLEMENTATION ON OBESITY: A RANDOMIZED CLINICAL TRIAL
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Introduction: Vitamin D, apart from being crucial in bone metabolism, plays an important role in insulin secretion and maintaining glucose homeostasis. Although thought to be adequately nourished, micronutrient deficiencies have been identified among the obese and vitamin D deficiency is common.

Purpose: To identify the effects of administering vitamin D, in vitamin D deficient obese children.

Material and Methods: Vitamin D deficient obese children were recruited for a supplementation study. A triple blind RCT was conducted where subjects were randomly allocated to treatment, supplement or control groups. After a 12-hour overnight fast, blood was taken for assessment of fasting blood glucose, insulin, lipid profile, ALT, AST, vitamin D, parathyroid hormone and OGTT with 2-hour random blood glucose and insulin. The children in the treatment arm received 50,000 IU of Vitamin D2 weekly for 24 weeks. The supplementation group were given 2500 IU weekly. The participants were followed up monthly at the Clinical Research Laboratory of the Professorial paediatric Unit at Lady Ridgeway Hospital for Children, Colombo, Sri Lanka. The protocol was approved by the Ethics Review Committee of Faculty of Medicine, University of Colombo and Clinical Trials of the Ministry of Health, Sri Lanka. The study was registered at Sri Lanka Clinical Trials Registry. Vitamin D deficiency was taken at serum level of <20ng/ml.

Results: 95 children were recruited and randomized to the three arms of the study, supplement (33), treatment (31) and placebo (31). BMI-Z score, WC, percentage body fat and alkaline phosphatase showed statistically significant decreases across all three groups with marked improvement in Vitamin D treatment group. Although statistically not significant, other anthropometric and metabolic parameters improved in all three groups, with marked improvement in treatment group. Vitamin D levels improved in all 3 groups with a significant rise in treatment group. Improvement in the supplement and placebo group were similar. Improvement in the placebo group could be due to improvement in the feeding
Abstracts

TEMPORAL LOBE EPILEPSY: ELECTROCLINICAL FEATURES, MANAGEMENT AND NEURODEVELOPMENTAL IMPACT

Ahmed hassan Alhammadi1,2,3, Manasik kamil Hassan1,2, Mohamed sobhy Khalifa1, Hatim mohamed Abdulrahman1,2,3
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Introduction & purpose: Eating behavior in children is considered part of their growth and development; one of the most common behaviors is picky eater. There is no single widely accepted definition of picky eating. Our aim from this study is to explore and compare parents and physicians perception of child picky eater and to identify factors that might lead to modifying such behavior and feeding practice.

Materials and Methods: A cross sectional single institution retrospective study was done at Hamad Medical Corporation in general pediatrics clinics. The survey includes details of demographic, several questions to explore the perception of picky eater among parents and physicians, compare the relation between truly parents concern and the physicians evaluation for the kids regarding feeding habits and how it is affecting the children growth.

Results: A total of (136) questionnaire analyzed; among the children a mean age of 5 years old. 75% of mothers were responsible for feeding and scheduling meals. Almost 58% of parents stated that they are considering their children as picky eater and have concerns about their growth, poor appetite and not getting optimal vitamins from meals compare to physician's concern (43%) p value (0.005). Family concern was matching low body mass index for their kids where the BMI was <15 (72%) p value (0.016) physician's point of view was less comparing to BMI of the children (50%) p value (0.17). The most common behaviors of a picky eater among the group responding included; taking less variety of food (62%) of parents vs (53%) physicians, refusal to eat at meal time (44%) of parents and (21%) of physician's p value (0.001), avoiding new food and prefer liquid over solid (50%) and (44%) respectively.

Conclusion: Our study showed that parents are more likely to identify their children as being picky eaters than physicians, in addition, there was a good correlation between parent's perception and their child's actual BMI. Both groups shared same concerns regarding picky eater behavior. Better understanding family dynamics and mealt ime interactions will help in improving parenting feeding styles and decrease negative parent–child interactions.

ID: 297 / OP2: 7
Oral Presentation Topics: General Pediatrics, Nutrition & Diets

CHILDREN’S EATING BEHAVIOR: A COMPARISON OF THE ATTITUDE AND PERCEPTION OF FAMILIES AND PHYSICIANS IN PEDIATRIC AMBULATORY SETTING - QATAR

Ahmed hassan Alhammadi1,2,3, Manasik kamil Hassan1,2, Mohamed sobhy Khalifa1, Hatim mohamed Abdulrahman1,2,3
1Hamad Medical Corporation, Qatar; 2Weill Cornell Medicine - Qatar; 3Sidra Medical and Research Centre-Qatar; MHassan17@hamad.qa

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ID: 263 / OP2: 8
Oral Presentation Topics: Nutrition & Diets, Adolescent Wellbeing

NUTRITIONAL HABITS PROFILE AMONG SUDANESE ADOLESCENTS

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Introduction: Adolescents are at a great risk of nutritional problems, because of the hormonal and physiological changes that affect their lifestyle and food habits and affect nutrient intake.

Purpose: The aim of this study was to determine the food pattern of Sudanese adolescent school children.

Materials & Methods: A learning facility based cross section study, conducted in basic schools in Khartoum, Sudan. Carried out in 25 primary school children for boys and girls distributed as 12 boys schools and 13 girls schools. Schools chosen for this study comprised all groups of society namely low, medium and high-income group. The sample size was 380. Informed consent was obtained from the participants and their teachers and they were informed that their participation is totally voluntary.

Results: Age of the studied population range between 10 – 15 years, the majority were between 12-13 (47.2 %). Female children comprised 47.0 % and male children were 53%. Fifty five percent of the students took 3 meals per day. 69% of prefer to eat beans in breakfast meal while only a very small percentage prefer to eat fruits. Soft drink was consumed by 37.4% of students.

Conclusion: Sudanese adolescent children consume a balanced diet except for less preference of fruits.

ID: 235 / OP2: 9
Oral Presentation Topics: Neurology

TEMPORAL LOBE EPILEPSY: ELECTROCLINICAL FEATURES, MANAGEMENT AND NEURODEVELOPMENTAL IMPACT

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Introduction: The wide range of symptoms and signs of temporal lobe epilepsy consists of motor manifestations, abdominal pain and oral, hand or verbal automatisms. They originate from medial or neocortical region of temporal lobe. Electroclincial features depend on the age of the child. Neurodevelopmental impact such as cognitive decline mostly depends on duration of epilepsy.

Purpose: to present our experience in diagnosis, treatment and follow-up of children with temporal lobe epilepsy.

Materials and Methods: retrospective observational study conducted in two medical centers. Data were collected from medical histories of children from 6 moths to 14 years with temporal lobe epilepsy. Results: Out of 32 children, 4 (12.5%) children younger than one year have...
OP2: ORAL PRESENTATIONS: SESSION 2

Temporal lobe epilepsy, 11 (34.3%) children in the age group from 1 to 5 years and 17 (53.1%) in the age group from 6 to 14 years. Analysis of electroclinical features showed that 24 children experienced partial seizures, 4 children had verbal attacks, 3 children had general tonic-clonic seizures and one child had severe abdominal pain. Spike-slow wave complexes in temporal leads were found in interictal electroencephalography. Magnet resonance changes were found in 7 (21.8%) children. Currently 24 (75%) children are being treated with one antiepileptic drug, 7 (21.8%) are on double antiepileptic therapy and 1 (3%) child is receiving three antiepileptic drugs. Neurodevelopmental delay due to uncontrolled seizures or brain structural changes was estimated in 9 (28.1%) children.

Conclusion: Management of temporal lobe epilepsy is complex with need of comprehensive diagnostic tools, access to modern therapies, and regular follow-up and close collaboration between health institutions with different level of health care.

ID: 187 / OP2: 10
Oral Presentation  Topics: Rare Diseases, Child Mental Health

INSPIRATORY MUSCLE TRAINING IN CHILDREN AFTER FONTAN OPERATION INCREASES OXYGEN SATURATION
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Introduction: The Fontan procedure is a palliative surgical procedure in patients with a functional or anatomic single ventricle. After a Fontan operation, the systemic venous blood flows passively through the lungs, without being pumped by a right ventricle. Due to improvements of surgical procedures, long-term outcomes are expected to be promising. However, patients face a high mortality and morbidity risk and may suffer of residual or sequel such as arrhythmias, heart failure, thromboembolic events, liver dysfunction or protein-losing enteropathy. Nowadays surviving into adulthood, Patients experience higher individual demands on exercise performance and health development.

Purpose: In Fontan patients, the ventilatory pump may augment the blood flow by increasing venous return within inspiration. The aim of this study was to evaluate the effects of inspiratory muscle training on exercise capacity and hemodynamic values in Fontan patients.

Materials and Methods: Forty consecutive, clinically stable children after Fontan operation (mean age 12.3 ± 2.2 years, range 8 to 17 years, 25% female) were recruited. Instable patients or those undergone recent interventions, or changes in medication were excluded. All patients performed a cardiopulmonary exercise-training test (CPET) and were then randomized into a training group or a control group. The training group received instructions to an inspiratory ventilatory muscle training with a POWERbreather® device, which was weekly adapted to the patients’ individual level. Patients were asked to train daily for 10-15 minutes. The control group did not receive any intervention. After 6 months all patients were restudied again.

Results: In the training group, work rate increased on average by 14% compared to 6.5% in the control group (p=0.425). There was a 10% increase in the forced vital capacity (FVC) in both groups, and an increase of VO2peak by 3.0%. Oxygen saturation at rest was significantly higher after the training compared to the control group (p < 0.014). None of the patients in the training group became cyanotic (<90%) during exercise anymore.

Conclusion: After a Fontan palliation, a lifelong follow-up by an experienced specialist in complex congenital heart disease (CHD) is essential. Patients’ needs concerning activities in daily life and the desire to perform sports should be regarded and considered individually. To enhance health development, preventive inspiratory muscle training should be included in the rehabilitative program of children and adults after Fontan operation. Inspiratory muscle training increases exercise capacity in terms of work rate and improves oxygenation at rest and during exercise.

ID: 256 / OP2: 11
Oral Presentation  Topics: General Pediatrics

CUTANEOUS MASTOCYTOSIS: BULLOUS FORM – A CASE REPORT
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Introduction: Mastocytosis is a disorder characterized by an abnormal proliferation and accumulation of mast cells within tissues or organs. Its clinical presentation results from mast cell-mediated release and increased mast cell infiltration in tissues.

Case report: We describe a 21 months old female infant with familial history of anetoderma (mother). The patient had no medical history until the age of 6 months when her parents noticed bullous lesions located on the scalp and seating position pressure points. From the age of 12 months, skin thickening with rough-textured and yellowish macules started to appear mainly on the scalp and trunk with sporadic episodes of acute worsening of the skin lesions along with vomiting and diarrhea. Due to the suspected diagnosis of mastocytosis, a skin biopsy was performed which showed severe mast cells infiltration on the dermis. Laboratory tests revealed increased serum tryptase levels (49,8 mcg/L). Both bone biopsy and myelogram showed no sign of medullary infiltration by mast cells. Abdominal ultrasound also did not show any alteration. Parents were instructed in order to avoid possible mast cells degranulation precipitating factors and started treatment with antihistamine and cromoglycate. In the 2 months previous to this case report, the patient had 3 visits to the emergency department for severe episodes of flushing associated with urticaria that quickly evolved into bullous lesions and systemic hypotenstion that needed adrenergic support. Following these episodes, corticosteroids and ketotifen were added to her treatment, so far with good response.

Conclusion: We describe a case of cutaneous mastocytosis in its bullous form illustrating the complexity of this disorder; particularly how clinical manifestations can either be limited to the skin but also have systemic involvement or be potentially fatal.
OP2: ORAL PRESENTATIONS: SESSION 2

ID: 190 / OP2: 12
Oral Presentation  Topics: General Pediatrics

FEVER DIARRHEA AMONG UNDER-5 CHILDREN: A FACILITY BASED OBSERVATION IN RURAL BANGLADESH
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Introduction: Fever is common and mostly caused by benign self-limiting infections and which is an easily recognizable primary sign, for many serious childhood infections. But when fever accompanies with infectious disease such as diarrhea become worried some and made parents anxious and drove care seeking.

Purpose: Due to the scarcity of information regarding the febrile diarrhea, we anticipated to explore socio-demographic, clinical, and host characteristics of diarrhea with fever among under-5 children who presented in rural Mirzapur, Bangladesh.

Materials and Methods: From January 2010 to December 2012, a total of 3,570 children of under-5 years with diarrhea were visited to a tertiary level hospital in rural Bangladesh. A total of 2,979 (83%) of these children were reported diarrhea without fever and 591 (16%) were enrolled as diarrhea with fever. Sixteen percent (n=591, 16%) of the enrolled children were suffering from diarrhea with fever, considered to be cases and the remaining children (n=2,979, 83%) were not reported with fever and formed the comparison group.

Results: Diarrhea with febrile children were more likely to be wasted (<–2 weight-for-height z-score) [(20% vs. 14%; p<0.001)] and underweight (<–2 weight-for-age z-score) [(26% vs. 21%; p<0.007)] compared to diarrhea without fever. Older age group (24-59 months) [(32% vs.16%; <0.001)] children were more complaints of diarrhea. Seasonal peaks of diarrhea with fever were observed in during the months of March, and June [(50% vs. 39%; <0.001)], but October to February were the peck of diarrhea without fever [(32% vs. 46%; <0.001)]. In multivariate analysis, significant associations diarrhea with fever were observed with age stratum [OR: 1.65 (95% CI-1.29-2.12)], seasonality [1.37 (1.12-1.68)], number of stool [1.30 (1.07-1.59)], vomiting [1.57 (1.27-1.94)], dehydration (moderate-severe) [1.73 (1.73-1.28)], convulsion [6.90 (3.75-12.71)]; Shigella [2.17 (1.67-2.82)] after controlling for other covariates.

Conclusion: Diarrhea with fever were more likely to be associated with older age stratum, seasonality, non sanitary toilet, stool frequency, vomiting, convulsion, dehydration (moderate-severe) and Shigella with diarrhea without fever. Further extensive study will be needed to better understanding about the disease to develop the treatment strategy to reduce disease burden.

ID: 188 / OP2: 13
Oral Presentation  Topics: Preterm Infant, NICU

THE EFFECT OF PRE-PREGNANCY BODY MASS INDEX AND WEIGHT GAINED DURING PREGNANCY ON PREGNANCY OUTCOME. A STUDY ON CYPRIOT POPULATION.
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Introduction: Several maternal factors such as the Body Mass Index (BMI) prior to pregnancy and weight gain during the pregnancy affect markers of pregnancy outcome, such as the gestational age and the newborn’s birth weight.

Purpose: To investigate the effect of the pre-pregnancy Body Mass Index (BMI) of the expectant mother and the weight gained during the pregnancy (number of additional kilos) on the newborn’s birth weight, the incidence of preterm birth and the degree of prematurity observed.

Material and Method: This is a prospective research carried out in Cyprus from March 2015 to April 2016. The participants were women with single pregnancy, giving birth in a private or state hospital. Questionnaires were administered to 348 women who gave birth prematurely (<37 weeks) (cohort group) and 349 women who carried their pregnancy to term (>37 weeks) (control group). The aim was to collect data relating the women’s weight gain in kilos (kg) during pregnancy, their height in centimeters and their weight just prior to pregnancy, in order to calculate their BMI. Following the calculation of the BMI, women were categorised into 5 groups. We also recorded the gestational age and birth weight of newborns. The statistical analysis was performed using the IBM SPSS 21.0 statistical package.

Results: Our results indicate a statistically significant increased incidence of preterm delivery (p<0.001), statistically significant lower gestational age (p<0.001), and an increased frequency of low birth weight newborns (LBWN) (<2,500 grams) (p=0.001) in women with low Body Mass Index (BMI<19.9 kg/m2). The reduced number of kilos gained during pregnancy indicates a statistically significant increased frequency of LBWN (p<0.001) and a lower gestational age of the newborn (p<0.001).

Conclusion: Women with low Body Mass Index before pregnancy or low weight gain during pregnancy, are at increased risk for premature birth and babies with low birth weight, when compared to women with normal BMI and normal weight gain during pregnancy. The implementation of preventive measures within the context of health policy, aimed at maintaining normal BMI for women and correct nutrition during pregnancy is necessary, since they have a significant impact on the pregnancy outcome.
**LIKELY BACTERIAL ACUTE CERVICAL LYMPHADENITIS IN CHILDREN: FACTORS PREDICTIVE OF FAVORABLE OUTCOME**

Karina Deshaies Poliquin1, Laurence Arsenaud-Blanchard1, Alexandre Marceau2, Richard Belanger3, Simon Berthelot4, Daniel Philippon5, Joséanne Gagnon1

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**Introduction:** Cervical lymphadenitis is frequent in the pediatric population and usually the result of infectious agents. Management of likely bacterial acute cervical lymphadenitis (LBACL) mainly relies on expert advice and may vary widely from antibiotic therapy to surgery as no official guidelines have been published over the last decade.

**Purpose:** To identify clinical factors associated with favorable outcome in the management of LBACL in children in order to create a decision algorithm and its further evaluation.

**Materials and Methods:** This retrospective observational study was based on the review of medical records of patient from 1 month to 18 years old that have consulted for LBACL between July 1st 2010 and July 31st 2015 at a tertiary care pediatric center. LBACL were identified using 2 electronic record databases (hospitalization, emergency). Patients were included if they had acute (<10 days) episode of unilateral cervical mass of which the final diagnosis was LBACL. Exclusion criteria were: mycobacterial adenitis, Kawasaki disease, Cat-scratch disease, bilateral cervical lymph node involvement, congenital malformation, immunodeficiency or underlying neoplasia. Favorable evolution was defined as outpatient treatment or hospital stay of 48 hours or less without surgical drainage. To identify factors at initial consultation predictive of a favorable outcome, we performed univariate logistic regression models with several potential independent covariates, including, among others, age (years), size of lymph node (mm), fever (38,5°C) and antibiotic use prior to consultation, fluctuation, absolute white blood cell count (x10^9/L), and purulent material at ultrasonography (yes/no).

**Results:** Our final study cohort was composed of 166 patients with a mean age of 4.5 years (3.5SD) and 62% male. Ultrasound was obtained in 139 (83.7%) patients and cervical tomodensitometry in 31 (18.7%). Surgical drainage was performed in 35 (21.1%). Overall, 68 (41.0%) patients presented a favorable evolution from which 27 (16.9%) were treated as outpatient (diagram 1). Factors associated with favorable outcome were: OR (95%CI): age (1.17; 1.06-1.29; p=0.002), absolute white blood cell count (0.91; 0.87-0.96; p=0.001), no antibiotic use prior to consultation (0.26; 0.07-0.92; p=0.037) and absence of purulent material on ultrasound (0.07; 0.02-0.29; p<0.001). Size of lymph node (0.98; 0.96-1.00; p=0.007) or fluctuation (0.71; 0.21-2.39; p=0.57) did not achieve statistical significance.

**Conclusion:** Older patients without prior antibiotic use, those with lower absolute white blood cell count and no purulent material on ultrasound seem to better evolve than other children with likely bacterial acute cervical lymphadenitis. A decision algorithm to identify patients eligible for conservative management should include those predictive factors.

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**PERIAPICAL ABSCESSES: A 10-YEAR ANALYSIS IN A PAEDIATRIC INPATIENT CARE UNIT**

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**Introduction:** Oral diseases are an increasingly health problem in the paediatric population with important morbidity and health care costs, although sometimes neglected by Paediatricians.

**Purpose:** Analyze clinical-epidemiological features and identify severity risk factors of periapical abscesses in a paediatric population.

**Materials and Methods:** Retrospective observational and analytical study of paediatric inpatients in a Portuguese hospital with the diagnosis of periapical abscess, during a 10-year period (2007-2016).

**Results:** This study included 94 patients (median age of 11.0 years, 52.1% female), with a median hospitalization time of 6 days (maximum 27 days). In the last six years, the number value of admissions to Paediatric Emergency Department doubled, with an average hospitalization rate of 11.8%. Oral disease existed previously to admission in 94.1%, with dental cavity being the most frequent (75.0%). Fifty-eight percent sought medical care before the admission, 46.8% had initiated antibiotic therapy and 2.1% underwent exodontia. The most common reported symptoms were odontalgia (77.7%) and cellulitis (64.9%). The mean time to presentation was five days. On physical examination, facial cellulitis (93.3%), dental cavities (55.4%), dental abscess (54.4%) and trismus (18.1%) were the most common findings. In 75.7% of cases permanent dentition was affected. Leukocytosis was present in 32.9% and C-reactive protein was positive in 89.2%. Evaluation by Stomatology/Dentist was requested in 85.1%, and 80.4% were submitted to dental procedure (68.3% exodontia). All hospitalized patients started intravenous antibiotics, 30.9% in association ad-initium. Amoxicillin+clavulanic acid was used in 81.9%, clindamycin in 25.6% and cephalexin in 12.8%. The evolution was unfavorable in 12.8%. The mean duration of treatment was 11.9 days. Eighty-nine percent were directed to hospital consultation but only 2.4% of them had records of oral health in the follow up. Prior antibiotic therapy was associated with initiation of more than one drug on admission (p=0.015). The presence of trismus on admission was associated with longer hospitalization time (p=0.003). An association was found between the presence of leucocytosis and unfavourable evolution (p = 0.036).
Conclusion: To the author’s knowledge, this is the first study of periapical abscesses in paediatric inpatients. The scarcity of medical records for some variables made difficult the identification of significant association, reinforcing the importance of research on this area. This public health problem should be emphasized among Paediatricians to promote oral health and prevent oral diseases.

ID: 114 / OP3: 3  Topics: Infectious Diseases & Vaccines

POSSIBLE IMPACT OF YEARLY CHILDHOOD VACCINATION WITH TRIVALENT INACTIVATED INFLUENZA VACCINE (TIV) ON THE IMMUNE RESPONSE TO THE PANDEMIC STRAIN H1N1
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Introduction: Annual vaccination of children against seasonal influenza with trivalent inactivated influenza vaccine (TIV) has shown to be beneficial and it has been recommended in many developed countries, primarily the United States and some European countries. However, this yearly practice may have an unintended effect. Several animal studies, mostly in mice and ferrets, have demonstrated that infection with either wild-type influenza A viruses or vaccination with live attenuated vaccine strains produced a more effective, broader heterotypic (cross-protective) immunity, which closely resembled natural immunity than did the use of inactivated virus vaccines. Similarly, live attenuated intranasal vaccine (LAIV) in animals as well as in young children has shown a superior relative efficacy when compared with inactivated influenza vaccine.

Purpose: We hypothesized that a possible unintended consequence of the practice of yearly TIV vaccination might be the lack of induction of heterotypic immunity against the recent novel H1N1 pandemic strain. Therefore, children and other immunologically naive individuals would be at higher risk of becoming infected with the H1N1 novel pandemic strain than those who have developed heterotypic immunity through previous influenza infection.

Methods: This was a retrospective case-control study. We reviewed the hospital’s electronic medical records of all polymerase chain reaction–confirmed cases of novel 2009 H1N1 influenza in children 6 months to 18 years old who were seen at the Children’s Hospital of Michigan during the period from October 2009, to January 2010. The immunization records of the H1N1 infected group and an age-, gender-, and race-matched control group were reviewed using the Michigan Care Improvement Registry to verify their respective seasonal influenza vaccination status.

Results: We identified 353 polymerase chain reaction–confirmed H1N1 cases and 396 matching control subjects. Among the H1N1 group, 202/353 (57%) cases received a total of 477 doses of seasonal TIV compared with 218/396 (55%) in the control group who received a total of 435 doses. Seasonal TIV uptake was significantly higher in the H1N1 group 477/548 (87%) than in the control group, 435/532 (81%) (P = .017). When stratified into 4 different age groups, the only statistically a significant increase of seasonal TIV uptake was in the H1N1 age group 18 to 48 months: 91 (95%) compared with 81 (85%) in the same control age group (P = .02). Also, the number of vaccinees who had an overall up-to-date immunization status was significantly higher in the H1N1 group 204/353 (58%) than in the control group 190/396 (48%; P = .008)

Conclusion: Seasonal TIV uptake was significantly higher in the H1N1-infected group. The finding suggests that the practice of yearly vaccination with TIV might have negatively affected the immune response to the novel pandemic H1N1 strain. Given the rarity of pandemic novel influenza viruses and the high predictability of seasonal influenza occurrence, the practice of yearly influenza vaccination should be continued. However, the use of the live attenuated intranasal vaccine, as opposed to TIV, may allow for the desirable development of a vigorous heterotypic immune response and possible protection against future pandemic strains.

ID: 276 / OP3: 4  Topics: Allergy, Immunology & Pulmonology

COMPARISON OF GLOBAL INITIATIVE FOR ASTHMA GUIDELINE CRITERIA AND CHILDHOOD ASTHMA CONTROL TEST FOR DETECTING ASThma CONTROL
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Introduction: There are so many developed tools for detecting asthma control in children. Childhood asthma control test (C-ACT) that is developed for detecting asthma control in children ages 4-11 years is one of these tools.

Purpose: The aim of this study is to evaluate reliability and validity of C-ACT in detecting asthma control in children by comparing C-ACT scores and GINA criteria.

Material and Methods: 164 patients aged 4-11 years were enrolled in the study. All the patients and their caregivers fulfilled C-ACT 10-15 minutes before the clinical visit. In clinical visit patients asthma control status was determined, blinded to C-ACT scores, by using GINA guideline criteria and pulmonary function test was performed. Total C-ACT scores calculated at the end of the study. Asthma control status compared between total C-ACT scores and GINA guideline criteria.

Results: For the reliability test of C-ACT cronbach’s alpha value was found 0.883. Mean C-ACT score of the patients whose asthma control status is well controlled according to GINA guideline criteria are significantly higher from uncontrolled (p<0.001) and partly controlled (p<0.001); mean C-ACT score of the patients whose asthma control status is partly controlled are significantly higher from uncontrolled (p<0.001; p<0.01). It is seen that when the C-ACT total score equal and above 22 the test sensitivity was 86%, 11 specificity was 73.44% and the accuracy was 76.22% (the highest rate) in detecting controlled asthma.

Conclusion: Although C-ACT is a reliable and validated tool in detecting asthma control, there are some discrepancies when the patients evaluated individually for asthma control. It is not true to detect asthma control by only using this test. But it must be accepted as a tool, which help physicians for evaluating the disease status and therapy choices.
Abstracts

OP3: ORAL PRESENTATIONS: SESSION 3

ID: 221 / OP3: 5

Oral Presentation  Topics: General Pediatrics, Allergy, Immunology & Pulmonology

EFFECT OF RESPIRATORY FUNCTIONS ON QUALITY OF LIFE IN CHILDREN WITH DUCHENNE MUSCULAR DYSTROPHY

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Introduction: Duchenne Muscular Dystrophy (DMD) is a hereditary disease with recessive inheritance due to the X-chromosome, with a prevalence of approximately 1 in 3,600 to 8,000 live births. Dystrophin deficiency in patients with DMD causes progressive degeneration of skeletal muscles, respiratory and cardiac muscles and functional skills with continuous degeneration of muscle fibrils and these affect quality of life and duration.

Purpose: The aim of our study is to evaluate respiratory functions in patients with DMD and to examine their impact on quality of life.

Materials and Methods: The study conducted with children, DMD diagnosis, ages between 8-12 years, have sufficient cognitive level. Demographics were recorded. Respiratory functions were assessed by measuring the parameters of forced expiratory volume in 1 second (FEV1), forced vital capacity (FVC), FEV1/FVC and peak expiratory flow (PEF). The quality of life was assessed using the Pediatric Quality of Life Inventory Neurromuscular Module (PedsQL-3.0).

Results: A total of 20 children were evaluated who meet the inclusion criteria. The mean age of the patients was 9.5 years and the body mass index were calculated as 26.2 kg/m2. The respiratory function values of the children evaluated within the scope of our study are shown in Table 1.

Table 1: Respiratory Function Test Results of DMD Patients

<table>
<thead>
<tr>
<th>Respiratory Parameters</th>
<th>Liter (m±sd)</th>
<th>Percentage (%) (m±sd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEV1</td>
<td>1.28±0.42</td>
<td>71.3±12.7</td>
</tr>
<tr>
<td>FVC</td>
<td>1.46±0.54</td>
<td>74.5±13.2</td>
</tr>
<tr>
<td>FEV1/FVC</td>
<td>0.88±0.74</td>
<td>90.8±21.48</td>
</tr>
<tr>
<td>PEF</td>
<td>2.56±1.20</td>
<td>62.5±21.48</td>
</tr>
</tbody>
</table>

FEV1: forced expiratory volume in 1 second, FVC:Forced Vital Capacity, PEF: Peak Expiratory Flow

The quality of life inventory results are shown in Table 2 in both parent and children reports. In our study, in three categories of quality of life inventory, children report scores were higher than parent report scores (Table 2). A significant correlation was found between the PEF score and the total score of both report and my / my child's neuromuscular disease score of both report (p<0.05). FEV1 and FVC values were correlated only with the parental report total score (p < 0.05). No significant association was found between the FEV1/FVC value and any of the quality of life parameters (p> 0.05).

Conclusion: DMD patients could experience ambulatory problems in early period and have severe respiratory problems with accompanying postural problems. Respiratory parameters should be taken into account earlier, as this group of patients may have worse progressions than other muscle groups. As we have seen in our work, respiratory functions could affect quality of life. Assessment of the quality of life, together with respiratory evaluation from an early period, and the importance of seeing progress in this evaluation result. More detailed and follow-up studies are needed to evaluate respiratory muscle strengths and examine the effects of muscle training.

ID: 156 / OP3: 6

Oral Presentation  Topics: Allergy, Immunology & Pulmonology, Emergency Pediatrics

PNEUMOTHORAX IN PEDIATRICS: THE EXPERIENCE OF A PORTUGUESE HOSPITAL

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Introduction: Pneumothorax represents the existence of air in the pleural space and can, in extreme cases, lead to pulmonary failure. It is a rare entity on pediatrics. Due to its broad clinical presentation and prognosis pediatricians must be aware of it and prepared to manage it.

Purpose: To characterize the patients, disease, treatment and outcome of Pneumothorax cases diagnosed in a Pediatrics department of a Portuguese hospital.

Materials and Methods: We present a retrospective observational study including all patients with more than 28 days and less than 18 years old of age admitted in our department between 01/01/2012 and 30/06/2017, with any ICD-9 diagnosis of Pneumothorax at time of discharge. Data regarding the patient, clinical presentation, treatment and follow-up were collected and analyzed.

Results: 15 cases of pneumothorax in 11 different patients were identified. 80% of them were male with an average age of 16.7 years. Average patient’s weight was 57.4 kg and average BMI - percentile of 25.5% (.11 SD). 40% had personal history of tobacco/tobacco and cannabinoids consumption.27% had Asthma and 13% Allergic rhinitis. 20% had personal history of pneumothorax. Pneumothorax development was not associated with physical activity in 80% of the cases. Main presentation symptoms were chest pain (100%), agitated by respiratory movements (53%), cough (47%) and dyspnea (40%). On admission average O2 was of 98.4%. 80% had diminished respiratory sounds on pulmonary auscultation and 27% had pale skin. 14% presented either polypnea or respiratory distress signs. 13% of the cases had a normal physical examination.100% of the cases were unilateral, 67% of them in the left lung. 73% of the cases were spontaneous primary pneumothorax. Pneumothorax size classification varied with the method used to calculate it. CT scan was performed on 80% of the patients with air bubbles found on more than 40%. 7% of the cases resolved spontaneously, 20% with supplementary oxygen and 33% with thoracic drainage. 33% of the patients needed thoracic surgery for definitive treatment. Patients were discharged on average 6 days after admission. Recurrence occurred on 27%.
Conclusion: Despite rare on pediatric age, Pneumothorax is a respiratory emergency and physicians should be aware of it. Clinical presentation is broad and the typical symptoms and signs of respiratory distress may not be present. Different treatment options can be assumed, based on each individual case. A high recurrence rate is found and a close follow-up is needed.

ID: 117 / OP3: 7
Oral Presentation  Topics: Child Mental Health

CUE-CENTERED THERAPY FOR YOUTH WITH POSTTRAUMATIC STRESS DISORDER (PTSD) SYMPTOMS
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Introduction: The experience of traumatic stress during development can lead to a broad spectrum of long-term cognitive and emotional consequences. These may result in academic underachievement, depression, anxiety, and post-traumatic stress disorder (PTSD), as well as acceleration or increased severity of other medical conditions, such as asthma, heart disease and substance abuse. Research in our laboratory has demonstrated alterations on key brain regions of youth with PTSD. The prefrontal cortex, hippocampus and amygdala have been identified as playing a role in the executive function, memory and emotion regulation of youth with PTSD. Cortisol secreted during periods of chronic stress may play a significant role.

Purpose: There is a growing need for a manualized treatment aiming to increase youth insight into how an individual’s history of exposure to trauma may relate to current emotional experiences and how these in turn may be linked to maladaptive behaviors. In view of this need, Cue Centered Therapy (CCT) was developed.

Methods: CCT is a structured, multi-modal intervention designed to reduce posttraumatic stress, depression, and anxiety in children chronically exposed to interpersonal violence. By incorporating diverse psychoeducational approaches with evidence-based treatments for childhood trauma, CCT is designed to empower children to become their own agents of change. By addressing the impact of allostatic load, educating youth and caregivers on the conditioning process that occurs through repeated exposure to trauma, employing insight-oriented strategies and visual icons, and utilizing a physiological approach, CCT is a unique protocol that builds upon the greatest strengths of its predecessors.

Results: Dr. Carrion will detail the development of CCT, including presenting results from a randomized controlled trial and introducing a new treatment outcome project that utilizes functional near infra-red spectroscopy (fNIRS) to assess improvement in cortical function. Instructions will be provided on how to use this manual, including an outline of the complete course of CCT, individual session outlines, summaries, forms and take home assignments.

Conclusion: The limited work-force available to treat the vast numbers of youth exposed to trauma require that therapists work in collaboration with primary physicians and others through dissemination of effective interventions.

ID: 295 / OP3: 8
Oral Presentation  Topics: Child Mental Health, Preterm Infant

LONG TERM CHARACTERISTICS OF AUTISTIC SPECTRUM DISORDER IN PRETERM COMPARED TO TERM
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Introduction: Autistic Spectrum Disorder (ASD) affects patient through out his life interfering with his ability to interact and communicate. ASD prevalence has been increased over the years and in the preterm population it is referred as 2 fold higher than term. With early intervention some patients will be able to follow an independent life, although in many others severity of the disease will have a lifelong negative impact. With detailed behavioral evaluation suspicion of diagnosis and early intervention can be made before 18 months of age.

Purpose: To study a group of children with ASD in view of their initial clinical signs and their development after early intervention, to compare preterm and term subgroups and to spot co-morbidities that may affect the initial diagnosis or outcome itself.

Methods and Materials: Retrospective analysis of medical follow-up records of children with ASD regarding clinical parameters such as gazing, verbal and non verbal communication, imaginary play, repetitive behaviors, social interaction, self care, ability to school entry and presence of CNS abnormalities.

Results: A total of 38 ASD cases were analyzed up to 11 years of age. Prematurity history (27±GA≤35 wks) had 11/38 (28.9%). Boys 31/38 (81.57%) and girls 7/38 (18.42%). CNS disorders recorded in 7/11 (63.63%) preterm children (3/7 VP-SHUNT for post-hemorrhagic hydrocephalus, 2/7 punctuate white matter lesions, 1/7 hypoxia, 1/7 microcephaly). ADHD co-morbidity had 13/38 children (34.2%). In term population mean age at first evaluation and diagnosis was 30.5 months (r=17-60 months). In the preterm subgroup, diagnosis and early intervention was made before 12 months of age. Mean intervention interval and follow-up time was 5.6 years (max 11 years). Mean maternal and paternal age at conception was 35.22 yrs (r 22-61 yrs) and 38.58 yrs (r 22-61 yrs) respectively. Higher education degree had 36.36% of mothers and 27.27% of fathers. After early intervention improved eye contact had 20/38 (52.63%) children although only 10.52% had gained good social interaction skills. Interaction with family members had improved in all cases. Term population had better outcome compared to preterm in gazing (57.14% vs. 36.36%), self care (51.85% vs. 18.18%), communicative speech (37.03% vs. 18.18%), independent school entry (33.33% vs. 18.18%), and parental interaction (77.77% vs. 36.36%). Worst outcome in total had 54.54% in preterm vs. 3.7 % in term subgroup.

Conclusions: Preterm children with ASD have worst outcome compared to term possibly due to co-existed CNS lesions. In term population there is an initial improvement in gazing but in the long run there remain problems with social interaction and a lifelong need for supervision. In one third of cases the presence of coexisted ADHD might affect outcome in either way.

ID: 164 / OP3: 9
Oral Presentation  Topics: Child Mental Health, Neurology

COGNITIVE FUNCTION IN CHILDREN WITH THALASSEMIA MAJOR
Cynthia Centauri, Irawan Mangunatmadja, Pustika Amalia, Eka Laksmi, Bambang Tridjaja, Bernie Endyarni Medise
Faculty of Medicine University of Indonesia, Ciptomangunkusumo Hospital, Indonesia; dr.cynthiacentauri@gmail.com

Introduction: Thalassemia is the most common hereditary disorders worldwide, including Indonesia. It is proven to be a burdening disease. Chronic anaemia and iron overload in thalassemia major lead to several risk factors including cognitive problems, but there are only few studies reported about cognitive function in children with thalassemia major. There has been no research about cognitive functions in children with thalassemia major in Thalassemia Center of Indonesia.

Purpose: (1) To investigate cognitive function in children with thalassemia major (2) to identify factors related to cognitive function in children with thalassemia major (age at diagnosis, duration of transfusion, patients education, pre-transfusion haemoglobin level, ferritin, transferrin saturation, compliance to chelation, and electroencephalography test)

Materials and Methods: A cross-sectional descriptive analytic study conducted from April 2016 to April 2017 on Thalassemia Center Cipto Mangunkusumo Hospital. Intelligence quotient assessed using Wechsler intelligence scale for children test-III (WISC-III). Electroencephalogram (EEG) results were analyzed by a pediatric neurology consultant. Subjects were excluded if they had epilepsy, central nervous system (CNS) disorders, or serious comorbidities.

Results: A total 70 subjects with thalassemia major aged 9 to 15.5 years old performed IQ test. The prevalence of abnormal IQ score (<85) was 37.1%. Six per 70 subjects were mild mentally retarded and 2/70 subjects were moderately mentally retarded. Mean (±SD) of total IQ score was 88.8 (±16.91). Subjects in this study had abnormal IQ score prevalence 2.7 times greater and experienced an average IQ score decrease by 11.2 points than the normal population. Sixty percent of EEG results were abnormal generalised background slowing activity. A correlation existed between the thalassemia patients IQ and pre-transfusion Hb level (p<0.05).

Conclusion: Our study found high prevalence of abnormal IQ test in children with thalassemia major. Pre-transfusion Hb level needs to be maintained between 9 and 10 g/dL to prevent cognitive dysfunction. Further study is suggested to explore the factors related to cognitive function in children with thalassemia major.

Purpose: We aimed to illustrate the development of the management of fetuses with prenatally diagnosed major CHD and evaluate the validity of the prenatal diagnosis.

Materials and Methods: We conducted a nationwide retrospective study from January 1st 1996 – December 31st 2013 including all live-born children and terminated fetuses diagnosed prenatally with a major CHD. We defined major CHD as lesions that usually necessitate intervention within the first year of life. Postnatal findings and autopsy reports were compared with diagnoses made in utero.

Results: 815 fetuses and live born children were included in this study. 57.8% were terminated, remaining stable throughout the study (p=0.7213). Autopsy reports were obtained on 60.3% of the terminated fetuses. The proportion of correct diagnosis increased throughout the study (p<0.0001) and reached 88.5% in 2013. The presence of an anomaly decreased the chances of a correct diagnosis (65.9% vs 83.8%, p<0.0001). The lowest rates were found in CoA (60.0%) and AVSD (60.0%). If these CHDs were disregarded the proportion of correct diagnosis reached 95% in 2013. 14 terminated fetuses had a normal cardiac evaluation at autopsy; however, all had associated anomalies. In 18 terminated fetuses autopsy showed a minor CHD. Most were terminated due to other anomalies, but 7 fetuses had no anomalies aside from the minor CHD. One foetus from 1998 was suspected of AVSD, which turned out to be ASD and VSD. 3 had Shone’s complex in which prenatal ultrasound had shown signs of poor prognosis that was not evident at autopsy. 2 had developed hydrops foetalis suggesting a more serious condition than expected from the relatively mild lesion found at autopsy, and one had situs inversus.

Conclusion: The validity of a prenatal major CHD is increasing, but is still low for CoA and AVSD. Special focus should be placed in the cardiac examination when TOP, as misinterpretation may have severe consequences.

ID: 194 / OP3: 10
Oral Presentation  Topics: General Pediatrics, Management

VALIDITY OF PRENATAL DIAGNOSIS OF MAJOR CONGENITAL HEART DISEASE IS INCREASING
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1Department of Cardiology, Rigshospitalet, Copenhagen University Hospital, Denmark; 2Department of Paediatrics, Aarhus University Hospital, Denmark; 3Fetal Medicine Unit, Department of Obstetrics and Gynecology, Aarhus University Hospital, Denmark; 4Department of Obstetrics and Gynaecology, Aalborg University Hospital, Denmark; 5Department of Pediatrics, Copenhagen University Hospital Hvidovre, Denmark; rebekka@tondering.dk

Introduction: Congenital heart disease (CHD) comprises a spectrum of malformations from minor lesions to major CHD that can be fatal shortly after birth. Major CHD accounts for 30% of infant deaths due to congenital malformations (Rosamond et al. e69-171) motivating vigilant prenatal screening to detect the vast majority of major CHD. It is crucial that regular audits on screening results are carried out so that the prenatal diagnosis may be reliable.

Purpose: The aim of this study was to investigate the effect of combined treatment for a child with idiopathic tiptoe walking (ITW).

Methods: We conducted a nationwide retrospective study from January 1st 1996 – December 31st 2013 including all live-born children and terminated fetuses diagnosed prenatally with a major CHD. We defined major CHD as lesions that usually necessitate intervention within the first year of life. Postnatal findings and autopsy reports were compared with diagnoses made in utero.

Results: 815 fetuses and live born children were included in this study. 57.8% were terminated, remaining stable throughout the study (p=0.7213). Autopsy reports were obtained on 60.3% of the terminated fetuses. The proportion of correct diagnosis increased throughout the study (p<0.0001) and reached 88.5% in 2013. The presence of an anomaly decreased the chances of a correct diagnosis (65.9% vs 83.8%, p<0.0001). The lowest rates were found in CoA (60.0%) and AVSD (60.0%). If these CHDs were disregarded the proportion of correct diagnosis reached 95% in 2013. 14 terminated fetuses had a normal cardiac evaluation at autopsy; however, all had associated anomalies. In 18 terminated fetuses autopsy showed a minor CHD. Most were terminated due to other anomalies, but 7 fetuses had no anomalies aside from the minor CHD. One foetus from 1998 was suspected of AVSD, which turned out to be ASD and VSD. 3 had Shone’s complex in which prenatal ultrasound had shown signs of poor prognosis that was not evident at autopsy. 2 had developed hydrops foetalis suggesting a more serious condition than expected from the relatively mild lesion found at autopsy, and one had situs inversus.

Conclusion: The validity of a prenatal major CHD is increasing, but is still low for CoA and AVSD. Special focus should be placed in the cardiac examination when TOP, as misinterpretation may have severe consequences.
Case Report: A 20 month old boy with ITW who had a positive family history of ITW was admitted to our hospital. Pathology was not detected in his cranial MR. His family reported that he began to walk when he was 12 months old. He had no fixed planar flexion contracture but we examined tightness his left calf muscles. Facilitation techniques of Kinesio Tape (KT) were applied to left tibialis anterior muscle three times a week. Soft tissue mobilization (STM) is the application of specific and progressive manual forces with the intent of promoting changes in the myofascia, allowing for elongation of shortened structures. STM was performed left gastrosoleus muscle group twice a day. In addition to KT and STM, gentle stretching exercises were taught to his family as a home exercise program to support the treatment process. Total treatment program lasted 8 weeks. His assessments were done weekly, by photographs and video recordings, while he is walking bare-foot.

Conclusion: According to the literature it is considered normal for children to walk on their toes until the age of 2-3. On the other hand early intervention programs are significant in rehabilitation. In our case we noticed that he could continue toipe walking and remain this type of walking as behaviourally. Our results showed that combined treatment with KT and STM had positive results. When video recordings were compared it was clear that he accomplished walking with a heel strike. Tightness in his left calf muscles was decreased and muscle tone was normal. According to our results KT and STM can be used as conservative method for children with ITW. Further studies should be planned with higher participation rates.

SINGLE EVENT MULTILEVEL SURGERY IN TREATMENT OF CHILDREN WITH CEREBRAL PALSY (EARLY RESULTS)
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Introduction: Cerebral palsy - a group of permanent disorders that are attributed to non-progressive disturbances that occurred in the developing fetus or infant brain. Movement disorders are often accompanied by secondary progressive musculoskeletal problems. Despite the some effectiveness of conservative methods, surgical correction of limb deformities is used in most cases. In recent decades most surgeons began to use the so-called “Single Event Multilevel Surgery”.

Purpose: The purpose of our study was to evaluate the early results of SEMLS, performed in orthopaedic department of the Mogilev Regional Children's hospital.

Materials and Methods: The early results of SEMLS were studied on 31 children underwent surgery in 2014-2017, which amounted to 35% of the total number of children who underwent surgery for treating spastic deformities of the lower extremities during this period. The determining factor of this procedure was simultaneously performing at least 2 procedures at different levels of the lower limbs. 20 children had spastic diplegia, 11 – spastic tetraparesis. The mean age in time of surgery was 8, the youngest child – 3, the oldest – 18, 31 children – 212 procedures. Different procedures were performed: adductor release, elongation of m.iliosposas, hamstring elongation, rectus femoris transfer to sartorius, Strayer procedure, Achilles tendon elongation, Evans procedure, split anterior tibialis transfer, proximal varus derotational osteotomy of the hip, proximal valgus hip osteotomy. The aims of surgery were different: GMFCS II-III – improvement of gait and self-service, GMFCS IV – walking training, even with assistive devices, GMFCS V – improving of a child care and creation of the possibility to transfer him in the wheelchair.

Results: The follow up was from 6 months to 3 years. GMFCS II-III group (7 patients): average improvement by Gate Observation Scale – 6.8 points (the worst improvement – 2, the best – 10). Two patients improved GMFCS II to III. GMFCS IV group (17 patients) – average improvement – 5.7 points, (the worst improvement – 2, the best – 11 in two children). 4 patients improved GMFCS IV to III, one patient IV to II. One patient despite performed in age of 3 years adductor contracture release with resection of anterior branches of n.obturatorius had strong adduction contracture after procedures. This can be seen as an indication to selective dorsal rhizotomy or baclofen pump insertion. Parents of 7 patients GMFCS V reported an improvement in care after surgery. During follow up deterioration was not observed.

Conclusion: Brain disorders in cerebral palsy are permanent and as S.Terver said – children with CP became adult with CP. The main goals of surgical treatment = improving the child's motor activity and elimination of severe limb deformities. SEMLS changes the whole pathological stereotype of musculoskeletal balance of extremities. It can improve the child's motor activity, eliminate the severe contractures of joints and provide adequate care for him in a relatively short period of time. This method, especially when combined with osteotomies, is technically difficult and requires two teams of orthopedic surgeons and anesthesiologist who owns the technique of combined anesthesia.
and/or congenital anomalies associated, HC constitutes the most common diagnostic tool that may range from 2 to 11 SD below the mean. Hence, since 12 genes have been proposed causative so far, their right monogenic assessments challenge clinicians into diagnostic arena.

**Purpose:** To achieve a comprehensive clinical and molecular MCPH approach realizing a step-by-step guidance algorithm useful in clinical practice for faster diagnosis; to contribute to the advancement in knowledge of MCPH neurobiological basis; to clarify MCPH genotype-phenotype correlation.

**Materials and Methods:** In the last 2 years 200 children were referred to our Unit for microcephaly. Each patient completed an extensive diagnostic work-up, which included clinical, genomic, inborn errors of metabolism testing and instrumental evaluations to exclude any progressive to secondary and/or iatrogenic causes of congenital microcephaly. Then, a comprehensive sequence of coding regions and splice junctions of all MCPH recognized disease causing genes (MCPH1, WDR62, CDK5RAP2, CASC5, ASPM, CENPJ, STIL, CEP135, CEP152, ZNF335, PHC1, CDK6) clustered in panel was performed using Ion Torrent PGMTM Platform technology whose design target coverage was 99.80%. Pathogenic status of variants identified, subsequently confirmed by Sanger sequencing, was classified according to the ACMG criteria. Missense variants were assessed using PolyPhen-2, SIFT and Mutation Taster software tools.

**Results:** A selected cohort of 38/200 patients (19%), matching the MCPH features was tested by NGS. We identified 32 variants in 23/38 (60.5%) patients involving 8/12 investigated genes (66.6%). All reported mutations have been classified as variants of uncertain clinical significance (VUS). However, in silico pathogenicity prediction revealed that 30/32 (93.7%) novel variants had a damaging/deleterious effect. MCPH genes’ VUS were found as heterozygous variants in 25/32 events (78.1%), while multiple and compounded heterozygosities accounted respectively for 4/32 (12.5%) and 3/32 (9.4%) cases. Furthermore, we identified 6 novel missense mutations.

**Conclusion:** The use of NGS has proven to be effective and, it allowed us to assess a faster molecularly MCPH diagnosis in 3 unrelated patients respectively due to ASPM, CASC5 and MCPH1 compounded heterozygosity. Despite different genetic involvements, all these patients shared a common clinical picture confirming once again how our algorithm could be considered a powerful tool for clinicians. By using MLPA and/or further functional studies as second-tiered tests, we will gain a higher diagnostic detection rate in this cohort, widening the scope of MCPH neurobiological basis.
(6MWT) was used to assess the functional exercise capacity and Pulmonary Function Testing (PFT) was used to assess respiratory functions. The expected 6MWT distance was 666.55 meters, taking into consideration the age, height, weight and gender of the case, while our case recorded a walking distance of 515 meters in the test result. The mean values of respiratory function were 84% for forced expiratory volume in 1 second (FEV1), 93% for forced vital capacity (FVC) and 92% for FEV1/FVC.

Conclusion: According to our knowledge there is no study in the literature about functional capacity and respiratory functions in patients with RSS. As a result of the assessments in the present case, we found that the functional capacity decreased and the respiratory functions were at the predicted values. In order to obtain more significant results, further studies with long term follow-up and higher participation rates are needed.

ID: 243 / OP4: 4
Oral Presentation  Topics: Rare Diseases

CYSTIC FIBROSIS (CF) IN CHILDREN OF BANGLADESH: AN EXPERIENCE WITH 71 CASES

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Introduction: Cystic fibrosis (CF) is the most common life limiting recessive genetic disorder in Caucasians with an incidence of approximately 1 in 2500 children born in the United Kingdom. It is less common in African Americans (1 in 15000) and in Asian Americans (1 in 31000). It also affects other ethnic groups such as black population with an incidence of 1 in 17,000 and the Native American population with an approximate incidence of 1 in 80,000.

Cystic fibrosis was thought to be extremely rare in Bangladesh. However published reports, reviews and comments indicate that CF is probably far more common in people of Bangladeshi origin than previously thought but is under diagnosed or missed in the majority of cases. The precise incidence of CF among Bangladeshi is unknown. The incidence in migrant Indian populations in the USA has been estimated to be 1 in 40000, and in the UK 1 in between 10000 to 12000. As a result of the widespread belief that CF does not occur in Indo-Bangladesh subcontinent, the disease is rarely suspected and even if it is suspected the diagnosis is rarely confirmed due to the poor availability of facilities for diagnosis. The mean age of diagnosis among in Bangladeshi children is 89 months compared with Indian Americans 12 months and 6 months among Caucasian American children and reflects a very low index of suspicion for the disease even among Bangladeshi children.

Conclusion: These reports suggest that the diagnosis of CF is much delayed in Bangladeshi children which may result in failure to thrive / severe malnutrition by the time the condition is eventually diagnosed — one of the bad prognostic indicators for survival.

ID: 193 / OP4: 5
Oral Presentation  Topics: Emergency Pediatrics, NICU

PRENATAL DIAGNOSIS OF MAJOR CONGENITAL HEART DISEASE IS ASSOCIATED WITH INCREASED MORTALITY.

Rebekka Lytzen1, Niels Vejstrup2, Jesper Bjerre3, Olav Bjørn Petersen3, Stine Leenskjold4, James Keith Dodd5, Finn Stener Jorgensen6, Lars Søndergaard1

1Department of Cardiology, Rigshospitalet, Copenhagen University Hospital, Denmark; 2Department of Pediatrics, Aarhus University Hospital, Denmark; 3Fetal Medicine Unit, Department of Obstetrics and Gynecology, Aarhus University Hospital, Denmark; 4Department of Obstetrics and Gynecology, Aalborg University Hospital, Denmark; 5Department of Pediatrics, Copenhagen University Hospital Hvidovre, Denmark; 6Fetal Medicine Unit, Department of Obstetrics and Gynecology, Copenhagen University Hospital Hvidovre, Denmark; rebekka@tondering.dk

Introduction: Major CHDs often demand surgical or catheter-based procedures in the neonatal period making early diagnosis crucial. Prenatal diagnosis enables early intervention; however, there is still controversy concerning the effect of prenatal diagnosis on prognosis.

Purpose: We aimed to evaluate the effect of a prenatal diagnosis on all-cause mortality, cardiac death, as well as morbidity in patients with major CHD.

Materials and Methods: We conducted a nationwide retrospective study from January 1st 1996 – December 31st 2013. Patients were identified from the National Patient Registry and all live-born children and terminated fetuses diagnosed with a CHD were included. We defined major CHD as lesions that usually necessitate intervention within the first year of life, Table 1. Records were reviewed to validate the diagnoses. Complications were defined as the occurrence of necrotizing enterocolitis, intracerebral haemorrhage, cerebral palsy, seizures, mental retardation, liver failure, acute kidney injury or heart failure.

Results: 2,224 live-born children and 471 terminated pregnancies with major CHD were included. 30.2% were diagnosed prenatally, increasing from 4.5 % in 1996 to 71.0% in 2013. 17.5% of fetuses with major CHD were terminated. This increased from 0.6% in 1996 to 39.1% in 2013 (p<0.0001). There was increased mortality in live-born children whose CHD had been diagnosed prenatally with a Hazard Ratio (HR) of 2.23 (p<0.0001). HR for the individual diagnoses is shown in Table 1. Length of stay in the first year of life for children with a prenatally diagnosed major CHD was a median of 42 days compared with 37 days in the postnatal group (p=0.0018). Complications occurred in 27.9% of children with a prenatal diagnosis and in 20.6% diagnosed postnatally (p=0.0027).
Table 1. Hazard ratio for prenatal diagnosis on mortality

<table>
<thead>
<tr>
<th>Condition</th>
<th>HR</th>
<th>p-value</th>
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<tbody>
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<td>UVH</td>
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<td>0.9237</td>
</tr>
<tr>
<td>ccTGA</td>
<td>1.32 (0.17-10.38)</td>
<td>0.795</td>
</tr>
<tr>
<td>Truncus</td>
<td>13.02 (1.27-133.88)</td>
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</tr>
<tr>
<td>TGA</td>
<td>1.38 (0.50-3.81)</td>
<td>0.5385</td>
</tr>
<tr>
<td>IAA</td>
<td>2.18 (0.63-7.49)</td>
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<tr>
<td>AVSD</td>
<td>3.27 (1.64-6.53)</td>
<td>0.0008</td>
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<tr>
<td>DORV</td>
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<td>PA-VSD</td>
<td>12.82 (2.76-59.57)</td>
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Conclusion: The anticipated positive effect of prenatal diagnosis of major CHD on outcome was not established in this study. Thus in general, prenatal diagnosis of major CHD was associated with worse prognosis. However, prenatal diagnosis permits fetal examination, parental counselling, termination of pregnancy, genetic testing, and optimal perinatal management and allows parents to adjust to the diagnosis. When assessing benefits these variables should be taken into account.

**OP4: ORAL PRESENTATIONS: SESSION 4**

**Table 1. Hazard ratio for prenatal diagnosis on mortality**

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**ID: 130 / OP4: 6**

**Oral Presentation**

**Topics:** Emergency Pediatrics

**CLINICAL SPECTRUM OF ACUTE MYOCARDITIS IN CHILDREN ADMITTED TO THE PEDIATRIC EMERGENCY DEPARTMENT**

Chun-Yu Chen1,2, Wen-Chieh Yang1,2, Yu-Jun Chang3, Han-Ping Wu4,5

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**Introduction:** Acute myocarditis, an inflammatory condition of the myocardium as a result of an infection, autoimmune disease or toxins, possibly result in life-threatening events and is relatively uncommon in children. However, the clinical presentations may range from asymptomatic to causing sudden cardiac arrest. The common clinical symptoms and signs of acute myocarditis include fever, nausea and vomiting, abdominal pain, shortness of breathing, tachypnea, lethargy, dysrhythmias, hypoperfusion and shock. However, it is difficult for primary physicians to make an early diagnosis and predict the prognosis correctly in children with acute myocarditis based on the clinical presentations at the time of their emergency department (ED) visits.

**Purpose:** The aim of this study was to analyze clinical spectrum of acute myocarditis in children and find some helpful factors that could aid primary physicians in earlier detection it and prediction the need for extracorporeal membrane oxygenation may (ECMO) support.

**Materials and Methods:** From October 2011 to September 2016, we retrospectively analyzed 60 pediatric patients, aged 18 years or younger, with a definite diagnosis of acute myocarditis admitted to the pediatric emergency department. The following clinical information was obtained and further studied: demographics, clinical presentations, laboratory tests, findings of electrocardiogram (ECG) and echocardiography, treatment modalities, complications and long-term outcomes.

**Results:** During the 5-year study period, 60 patients (32 males and 28 females; mean age, 8.8±6.32 years) were diagnosed as acute myocarditis. The three most common symptoms and signs at presentation were fever, cough and chest pain (68.3%, 56.7% and 53.3%, respectively) (Table 1). Only 12 patients had positive microbiological diagnoses, including 3 with influenza A; 4 with influenza B; 2 with enterovirus 71; 1 with parainfluenza type 2; 1 with herpes simplex virus type 1 and 1 with respiratory syncytial virus. Vomiting, weakness and seizure were reported more common in EOMO group than non-ECMO group patients and with statistical significance (P=0.003, P=0.001 and P=0.011, respectively) (Table 2). In addition, arrhythmia and left ventricular ejection fraction (LVEF) < 60% were more frequent in the EOMO group. Receiver operating characteristic (ROC) analysis showed that the best cut-off value of initial LVEF for predicting ECMO treatment was 57.5 %.
DOES CLINICAL TRAINING IN PEDIATRICS IMPROVE MED III STUDENTS’ APPROACH TO CHILDREN? A COHORT STUDY

Joey El Khoury¹, Mode AlQajimi², Georges Abi Fares¹, Issam Malouf¹, Georges Nicolas¹, Josephine Sakkal¹, Marie Claude J. Fadous Khalife¹

¹Holy Spirit university of Kaslik-UH-Notre Dame Des Secours, Lebanon (Lebanese Republic); ²Balamand University, Koura,Lebanon; mclaude454@hotmail.com

Background & Objective: Physical examination is the cornerstone for correct patient diagnosis. Examination of a pediatric patient requires additional skills related to patient—doctor interaction. Therefore, performing an accurate and complete physical examination of a child may be a challenging if not an impossible mission for inexperienced medical students during their pediatric internship. Having a pediatric-adjusted clinical approach might be the solution.

Methods: A Cohort study was done in our university hospital “Notre Dame Des Secours”. All Med III students (27) received a supplementary 3-hours presentation with instructional videos regarding pediatric physical exam (P/E ) approach. This was followed by a Q/A session with instructional facilitator. A questionnaire was filled in by the same medical students, upon completion of their pediatric Med III scheduled rotation. The control group filled the same questionnaire: The Med III students (29) -who did not receive the supplementary presentation – after completing their pediatric rotation. We used the “Statistical Package for the Social Sciences” (SPSS) version 22 as a statistics analysis tool

Results: After comparing the two groups, 19.6 % and 39.3% OF Med III students in the intervention group felt respectively that “if a child cries it is their fault” (p=0.023) and that “the child’s mother is always right until proven otherwise” (p=0.000) vs 7.1% and 14.3 % in controls. Regarding the child’s comfort, the intervention group learned that “if the child is ticklish, their own hands can be used to palpate the abdomen” (p=0.000). However, questions concerning starting with ENT exam and using firm tone or skipping parts of examination were not significant (p=0.063;p=0.150 respectively) Intervention group medical students learned that using gowns and explaining all the PE steps to the child may be a possible solution for better contact (p=0.007). In addition, leaving the child’s underwear on or asking parents to leave the room (p=0.025) can optimize intimacy. They can just observe their walk and musculoskeletal status in case of non cooperation (p=0.030), and finally letting a child play with their medical tools can help gaining their trust (p=0.003). The rest of the results was not significant: “child is not a small adult” (p=0.237). Adults and children should not be examined the same way (p= 1.000). “Trying to estimate a child’s age” (p=0.073) and “commenting on their choices of clothing” (p=0.055). “Parents should not intimidate their children to answer questions nor answer for them” (p=0.087).

Conclusion: We conclude that our supplemental training program did improve some aspects of student’s pediatric PE skills. Students learned to implement new techniques to make children relax and comfortable. The primary results are promising. A larger scale study should be done to better assess the advantage of implementing such a change in the Med III curriculum.
OP4: ORAL PRESENTATIONS: SESSION 4

ID: 237 / OP4: 8
Oral Presentation  Topics: General Pediatrics, Infant Development

SCREENING FOR DEVELOPMENTAL DYSPLASIA OF THE HIP (DDH): PAEDIATRICS CHALLENGES

Irena Bralić1, Katija Kragić2, Ozren Vrdoljak3, Javor Vrdoljak4
1University of Split, School of Medicine, Croatia, Croatia; 2; 3Pediatrics Clinic, University Hospital Centre Split, Croatia; 4Children’s Hospital Zagreb, Croatia; 1; 2The Polyclinic Orthopedics Vrdoljak, Zagreb, Croatia; irena.bralic@si.t-com.hr

Introduction: Developmental dysplasia of the hip (DDH) is the most common deformation of the loco-motor system, caused by multiple factors, which meets the criteria to be included in screening programme.

Purpose: The aim of this study was to present arguments why paediatricians should be responsible for the DDH screening programme, on the basis of our own twenty-years of experience in conducting non-selective, combined clinical and ultrasound DDH screening, and a critical analysis of the available literature.

Methods: At their first regular check-up by a paediatrician at the age of 4 to 6 weeks, a total of 2720 infants with 5440 hips were examined clinically and by ultrasound. The clinical examination included the Barlow and Ortolani tests and limited hip abduction. The Graf method was used for the ultrasound examination.

Results: 89.4% of the infants had normal findings by ultrasound and 92.3% of the infants examined clinically. None had a positive Ortolani or Barlow test, and 210 had limited hip abduction. 72% of the pathological hips (3 subluxation and 1 dislocation) shown by ultrasound were not recognized clinically. 9% of the population covered by the DDH screening were referred to a paediatric orthopaedist for further observation. 2.8% of the population underwent conservative orthopaedic therapy, and none of the children were treated surgically.

Conclusion: Paediatricians responsible for non-selective combined clinical and ultrasound screening of the hips are able to discover all forms of DDH at the age of 4 to 6 weeks, and provide orthopaedic therapy that is rational, accessible and practical for the parents and their child. Despite the sensitization of paediatricians to the problem of early diagnosis of DDH, clinical examination as a screening method is subjective and insufficient due to its low sensitivity and the large proportion of false negative findings. Well-structured training, provided by licensed, professionally authorized educators, with the possibility of continual renewal of knowledge, is vital for optimal screening for DDH. The consistent application of diagnostic methods according to Graf, contributes to the objectivity, repeatability, feasibility and economically viability of DDH screening.

ID: 152 / OP4: 9
Oral Presentation  Topics: General Pediatrics, Obesity & Physical Activity

ASSOCIATION OF FATTY LIVER WITH SERUM GAMMA GLUTAMYLTRANSFERASE AND URIC ACID IN OBESE CHILDREN IN A TERTIARY CARE CENTRE

Dinesha Maduri Vidanapathirana1, Eresha Jasinge1, Dulani Samaranyake2, Pujitha Wickramasinghe3
1Department of Chemical Pathology, Lady Ridgeway Hospital, Sri Lanka; 2Department of Community Medicine, Faculty of Medicine, University of Colombo,Sri Lanka; 3Department of Paediatrics, Faculty of Medicine, University of Colombo,Sri Lanka; maduri129@yahoo.com

Introduction: Obesity among the young is an emerging health problem with many metabolic changes including liver derangement.

Purpose: Our objective was to investigate the association of fatty liver with serum uric acid (UA) and gamma-glutamyltransferase (GGT) in a cohort of obese children in Sri Lanka.

Materials and Methods: A cross-sectional analytical study was conducted among 5-15 year-old obese children whose body mass index for age was >2 standard deviation from the median (WHO standards). After a 12-hour overnight fast, blood was drawn for glucose, lipid profile, alanineaminotransferase (ALT), aspartate aminotransferase (AST), insulin, UA and GGT. Height, weight, waist circumference, blood pressure and fat mass were measured. Ultra sound scan of abdomen was performed to determine fatty liver.

Results: We studied 146 obese children with a mean age (SD) 9.86 (2.1). Chi square test showed statistically significant associations between fatty liver and AST, ALT, AST/ALT ratio, insulin resistance assessed by homeostasis model (HOMA-IR) and UA and GGT. With existing cut offs GGT (>30U/L) and UA (>330 µmol/L) the sensitivity and specificity of GGT in predicting fatty liver was 26.9% and 94.1% respectively while for UA is 38.5% and 83.6% respectively. A cut-off value of 18.5 U/L (sensitivity 76.9% and specificity 52.9%) for GGT, 277µmol/L (sensitivity 70.5% and specificity 51.5%) for AST, 21.5U/L (sensitivity 80.8% and specificity 61.8%) for ALT, a ratio of 0.99 (sensitivity 77.9% and specificity 55.1%) for AST/ALT and 2.02 (sensitivity 73.2, specificity 58.5) for HOMA-IR predicted fatty liver.

Conclusion: GGT and UA are associated with fatty liver and these biomarkers can be used to predict fatty liver disease.

ID: 175 / OP4: 10
Oral Presentation  Topics: General Pediatrics

INVOLVING PARENTS IN ROAD SAFETY DECISION MAKING: KEEPING OUR CHILDREN SAFE

Mohamed Hendaus1,2, Reem Emad El-Deen Wassaf1, Marwa Mansour1, Tasneem Abdel-Karim1, Ahmed Alhammadi2,3
1Hamad Medical Corporation, Qatar; 2Weill Cornell Medicine; 3Sidra Medical & Research Center; rwassaf@hamad.qa

Introduction: Every year more than 630 people are severely injured due to motor vehicle accidents in the State of Qatar. This prevalence is considered high in a small country. Involving parents in road safety decision making can lead in the decline of morbidity and mortality due road danger.

Purpose: Our purpose was to delineate parental concept of road safety in the State of Qatar, integrate parental thoughts and ideas into public safety, and share our data with authorities to assist in implementing campaigns against speeding.

Materials and Methods: A cross-sectional prospective study was conducted at Hamad Medical Corporation, the only tertiary care and academic hospital in the state of Qatar. Parents of children younger than 18 years of age were offered an interview survey.
EXTREME THROMBOCYTOSIS IN AN INFANT: MUCH ADO ABOUT NOTHING?

Joana A. Oliveira1, Sofia Moeda2, Marta Cointreiras2, Sofia Costa Lima2, Ana Bela Ferrão3

1Department of Pediatrics, Hospital Santa Maria (CHLN), Lisbon, Portugal; 2Department of Pediatrics, Hospital Beatriz Ângelo, Loures, Portugal; 3Unit of Pediatric Hematology, Department of Pediatrics, Hospital Santa Maria (CHLN), Lisbon, Portugal; joana.a.oliveira@hotmail.com

Introduction: Thrombocytosis is common in children and frequently reactive to infections. Extreme thrombocytosis (platelet count>1,000,000/mm3) is rare and its clinical implications in Pediatrics not well understood. We describe a case of extreme reactive thrombocytosis in an infant with presumable bacterial infection, who had no complications.

Case Report: A healthy 7 week-old girl was admitted to the Emergency Department for fever (38.5°C) and mild nasal congestion. No other symptoms or contact with ill people were reported. Physical examination showed a well-appearing infant, no respiratory distress, no hypoxemia, normal cardiorespiratory auscultation, and no other remarkable physical findings. Lab works showed hemoglobin 9.6 g/dL, white blood cell (WBC) count 45,600/mm3, 66% neutrophils, platelet count 2,580,000/mm3 and C-reactive protein (CRP) 8.38 mg/dL. Urinalysis, cerebrospinal fluid (CSF) analysis and chest X-Ray were normal. Peripheral blood smear showed no blasts. The infant was admitted and started on intravenous ampicillin and cefotaxime (for presumed bacteremia) and oral aspirin 5 mg/kg/day. She remained clinically well and apyretic during this period. 102 patients were followed up. Range of ages was between 18 months and 18 years, mean of 9 years and similar gender distribution (53% females and 47% males). In 98% was performed, at least, one tracking of other autoimmune disease with antibody determination. From this tracking we found positive autoantibodies in 31%: thyroid antibodies (n=16), antibodies for celiac disease (n=10) and positive Anti-Saccharomyces cerevisiae antibodies. Despite the positivity of antibodies, five had thyroid clinical disease (one patient with hyperthyroidism and four with hypothyroidism) through the necessity of pharmacotherapy; four had celiac disease, confirmed by endoscopy and with gluten free diet. From all patients, 62 maintain follow up in our consultation.

> Results: 300 questionnaires were completed (response rate =100%). Approximately 80% of parents were between 20 and 40 years of age. Almost 40% of participating families reside outside the capital city of Doha. Interestingly only 1 in 2 parents thought their children were safe while riding with them in the car. Moreover, only 47% of parents always used car seats, seatbelts and proper restraints. This is in-keeping that nearly 82% of parents felt that these restraints protect children in case of an accident. When asked if it is safe to exceed the speed limit if driving safely, 80% of parents believed that it was not a good idea. The concept of controlling speed limit was investigated, and it showed that 85% of parents agreed and strongly agreed that the car speed limit should be preset by local authorities, while 70% believed that it would be wise to use electronic chips in car keys for monitoring speed. It’s worth mentioning that female parents, were more open to this idea (p=0.008). Parents were also asked of the best place to receive road safety information. Almost 50% preferred to receive it through social media, while 44.3% opted for local television.

Conclusion: A large proportion of residents in the State of Qatar perceive that children are not safe while commuting in roads. Social media, a space where most of our community inhabitants, seems to be the best setting to target our people. We will share our data with the ministries of internal affairs, endowment and guidance to assist to launch campaigns using specific road safety messages.

ID: 265 / OP4: 11
Oral Presentation  Topics: General Pediatrics

TYPE 1 DIABETES AND AUTOIMMUNE RELATED CONDITIONS – A RESEARCH STUDY IN A PORTUGESE HOSPITAL

Vanessa Oliveira Gorito1, Sara Peixoto2, Inês Torrado2, Cristina Cândido2, Vânia Martins2

1Centro Hospitalar de S.João, Porto - Portugal, Portugal; 2Centro Hospitalar de Trás-os-Montes e Alto Douro, Portugal; vanessaoliveiragorito@gmail.com

Introduction: Type 1 diabetes (T1D) is an organ-specific autoimmune disease caused by autoimmune response against pancreatic β cells. The T1D-inducing autoimmune process can also affect other organs, resulting in the development of additional autoimmune diseases.

Purpose: Identify the association between autoimmune conditions and T1D diagnosed in children.

Materials and Methods: Retrospective study of the clinical records and analytical examinations of the children and adolescents with T1D followed in our Pediatric Diabetes Consultation between September 1, 2012 and August 31, 2017.

Results: During this period, 102 patients were followed up. Range of ages was between 18 months and 18 years, mean of 9 years and similar gender distribution (53% females and 47% males). In 98% was performed, at least, one tracking of other autoimmune disease with antibody determination. From this tracking we found positive autoantibodies in 31%: thyroid antibodies (n=16), antibodies for celiac disease (n=10) and antinuclear antibodies (n=5). Antibodies positivity occurred, in mean, 3.6 years after T1D diagnosis. However, about 26% of patients had positive antibodies during the first year diagnosis. Other conditions associated were: pulmonary hemosiderosis, vitiligo, IgA deficic, uveitis and positive Anti-Saccharomyces cerevisiae antibodies. Despite the positivity of antibodies, five had thyroid clinical disease (one patient with hyperthyroidism and four with hypothyroidism) through the necessity of pharmacotherapy; four had celiac disease, confirmed by endoscopy and with gluten free diet. From all patients, 62 maintain follow up in our consultation.

Conclusion: We found autoimmune conditions associated in around one third of T1D patients, which overlaps comparing with other studies. Besides, around 26% had positive antibodies at T1D diagnosis, which claim the attention to tracking autoimmune related conditions at diagnosis. Despite the positivity of antibodies, it is important to be aware for the possibility of other less common autoimmune related conditions associated. The screening of comorbidities is fundamental to make an earlier diagnosis and prevent complications.
Presentation

CHILDHOOD GRANULOMA ANNULARE. A 16-YEAR CLINICAL PERSPECTIVE FROM A PEDIATRIC HOSPITAL DERMATOLOGY DEPARTMENT.

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Introduction: Childhood granuloma annulare (CGA) is a common inflammatory dermatosis of unknown etiology. Association with other conditions is controversial.

Purpose: To describe the clinical features of CGA diagnosed in a Portuguese Pediatric Hospital Dermatology Department.

Materials and Methods: Retrospective observational study of CGA diagnosed in the last 16 years; SPSS v.20 was used.

Results: 22 cases were identified, with a male:female ratio of 1:2.1 and median age at appearance of 5 years-old. Lesions were asymptomatic in 95.6% and localized to the feet (54.5%), ankles (27.3%), thighs (18.2%), legs (18.2%) and hands (18.2%; 68.2% had ≥1 lesion. Examination revealed typical features of localized GA (LGA) in 81.5%, isolated violaceous subcutaneous nodules in 9.1%, and both lesions in 4.5%. Biopsy was performed only in n=2, yielding a diagnostic result in 1. Final classification was LGA in 86.4%, subcutaneous GA (SGA) in 9.1%, and mixed LGA/SGA in 4.5%. Lesions developed after sun exposure in 22.7% and minor trauma in 4.5%; 13.6% of the children were obese. Familial dermatologic history was unremarkable. Treatment was initiated in 77.3% of the cases. Medium/high-potency topical corticoids (TC) were the first-line agents in all. If recurrence/no resolution (n=7), alternative options were contrast-pulsed-laser (CPL; n=4), other CT (n=2), cryotherapy (n=1), pimecrolimus (n=1) or surveillance (n=2). Regarding CT, 47.1% used mometasone furoate, 11.7% fluticasone propionate, 31.8%, respectively; medical records were reviewed until the present age (median follow-up 7.5 years). No case was diagnosed with DM1, TD, neoplasia, uveitis or dyslipidemia.

Conclusion: To the authors Knowledge, this is the first study of CGA from 1-18 years old. Clinical features were in accordance to literature. Surveillance yielded positive results, emphasizing its benign and often self-limited course and supporting it as a valid option for most cases and acceptance within families. Except for DFV, other CT used may be an option if treatment is initiated; CPL can be considered in treatment failures. None of the reported medical conditions associated with GA developed at follow-up, possible obviating investigations towards a more conservative surveillance approach.

Presentation

QUANTITATIVE EVALUATION OF PDA FLOWS AFFECTING CEREBRAL BLOOD FLOW IN NEWBORN INFANT

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Introduction: It is important to evaluate cerebral blood flow (CBF) by ultrasonography to diagnose asphyxia or to predict developmental prognosis of a newborn with asphyxia. It is known that ductal shunt influences cerebral blood flow, however, the quantitative relation between CBF and ductal shunt is unclear.

Purpose: In this research, we quantitatively estimated the influence of ductal shunt to cerebral blood flows

Materials and Methods: We examined retrospectively the medical records of 123 newborn infants without asphyxia, major cardiac malformations or severe respiratory distress whose blood flow velocity curves of anterior cerebral artery (ACA) and left pulmonary artery (LPA) were recorded by pulsed Doppler ultrasonography within 6 hours after birth. The instrument used was a Philips Model iE33 Color Flow Imaging System. Recordings were obtained while the infants were asleep or resting quietly with stable heart rates. The flow velocity curve of ACA was recorded in a sagittal view by pulsed Doppler with supported color flow imaging positioning a transducer on the anterior fontanel. The flow velocity curve of LPA was recorded in a parasternal short axis view. The systolic maximal velocities (ACAS, LPAS) and end-diastolic velocities (CAD, LPAD) were measured in ACA and LPA, respectively, and resistance index (RI), pulsatile index (PI) and LPAD/LPAS were calculated.

Results: Birth weight and gestational age of the newborns are 2470±645 grams and 36.4±2.6 weeks, respectively. RI, PI, and LPAD/S are 0.80±0.12, 1.73±0.41 and 0.28±0.01, respectively. There is a significant correlation between RI and LPAD/S (P<0.001, n=0.58).

Conclusion: In this study, we showed the quantitative relation between CBF and ductal shunt. From these results, we might be able to establish a new method to estimate cerebral circulation without the influence of ductal shunt in newborn infants.
RESILIENCE IN CHILDREN BORN EXTREMELY PRETERM

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Introduction: Research on the outcomes of preterm birth has focused primarily on negative consequences. Little attention has been paid to the prevalence of positive outcomes and factors that may account for the age-appropriate levels of functioning of some preterm children.

Purpose: The aims of this study were to examine the rate of positive outcomes in a sample of extremely preterm (EP) children and compare them to EP children with more negative outcomes on measures of biological and social risk, family characteristics, and child social and cognitive competence.

Materials and Methods: The sample comprised 130 children born from 2001-2003 at a single neonatal center with gestational age <28 weeks and/or birth weight <1000 g. The majority of the sample (72%) was at high biological risk as defined by a major neonatal complications or neurodevelopmental impairment in early childhood. Tests of academic and cognitive skills were administered to the children at mean age 8.0 years (SD=.4). Their teachers completed ratings of social competence; parents provided information on children’s daily living skills, sociodemographic risk, parenting, and the home environment. A formal psychiatric interview was also conducted with parents to determine if the child met DSM-IV criteria for a psychiatric disorder. Children without a psychiatric disorder who were free of deficits in achievement, language, and daily living skills were classified as having a positive outcome; children with a psychiatric disorder or deficit in one of these areas were classified as having a negative outcome. The two subgroups were compared on measures of biological and demographic risk, the home environment and parenting, and child social and cognitive abilities.

Results: Only 36 children (28%) had positive outcomes, but rates of these outcomes varied significantly from 13% for children at both biological and demographic risk to 53% for those without either risk factor (p=.002). Each risk factor contributed to outcome independently of the other (p<.05). Other factors associated with positive outcomes included more stimulating home environments, caregiver endorsements of parenting satisfaction and promotion of child autonomy, and higher child social competence and cognitive abilities (all p’s<.05).

Conclusion: A substantial minority of school-age EP children demonstrated age-appropriate achievement, behavior, and daily living skills. Although these “resilient” children were at lower biological risk than those with learning or behavior problems, the findings confirm the contribution of environmental advantage to positive outcomes and provide impetus for further research on neural plasticity following preterm birth.

TO ASSESS THE IMPACT OF QUALITY INITIATIVE PROGRAM USING STANDARDISED MANAGEMENT GUIDELINES ON NEONATAL OUTCOMES IN VERY LOW BIRTH WEIGHT INFANTS IN TERTIARY CARE NICU IN NORTH INDIA.

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Introduction: Quality control, and adherence to written NICU specific guidelines, are known to impact outcomes in preterm neonates. As part of quality initiative, we introduced a standardized written guideline-based approach towards the management of VLBW neonates.

Objective: To study and compare the morbidity and mortality outcomes of VLBW neonates before and after introduction of standardized management guidelines as part of quality initiative program in a tertiary care NICU in North India.

Methods and Materials: Four quality initiatives were introduced and written guidelines and checklists were prepared for each of them. Training was provided to each of the doctors and nursing staff on implementation of these guidelines. The quality initiatives identified and implemented were: a) Adopting Humidified and Heated High Flow Nasal Cannula (HHHFNC) as primary mode of ventilation. b) Using only expressed breast milk / donor milk for feed and absolutely no formula milk feed. c) Maintain strict asepsis with primary focus on hand washing and following “Bundle Care Approach” for Central lines and PICC lines and d) Development and supportive care through a checklist based approach on minimal handling, prone positioning, clustering of care and dim lights/low noise environment. Data was collected prospectively from July 2015 to December 2016 (Intervention Group) and compared with retrospective matched controls from the previous year (July 2014 – June 2015) (Control Group). Chi square test was used for data analysis.

Results: There was significant decrease in culture positive sepsis in the intervention group compared to control group (3. (2.97%) CI:0.006-0.08 vs 11 (19.64%) CI:0.10 - 0.32 ; p:0.0004). Similarly, the number of days on mechanical ventilation was significantly reduced (mean number of days in intervention vs control group (1.19;CI: 0.27-2.1 vs 3.36 CI:2.27-4.44, p:0.002) while number of days on HHHFNC was increased in the intervention group (mean 4.03 (CI:2.62-5.44) vs 2.2 days (CI:1.01-3.38), p:0.049). There was no significant difference in the survival (94.64% vs 96.03% p: 0.738) or mortality (5.35% vs 3.96% p: 0.74) amongst the two groups. All other morbidities such as bronchopulmonary dysplasia, necrotising enterocolitis, intraventricular hemorrhage, and retinopathy of prematurity were statistically insignificant in both groups. Other variables like maternal age, gestational age, antenatal steroids, maternal complications like pregnancy induced hypertension, antepartum hemorrhage, gestational diabetes mellitus, choioamnionitis, birth weight and sex were well matched in both the groups.

Conclusion: Implementing quality initiatives in the form of standardized management guidelines for preterm VLBW neonates was associated with significant reduction in culture proven sepsis and mechanical ventilation days without affecting mortality or other co-morbidities.
**Autism Spectrum Disorder Screening in a Primary Care Facility**

**Aim:** To evaluate mortality, morbidity and Neurodevelopmental outcome at 2 years CGA of all preterm infants < 35 weeks gestation who received rescue iNO for hypoxic respiratory failure.

**Materials and Methods:** A retrospective review was carried out of all preterm infants < 35 weeks admitted to our tertiary NICU who required iNO for hypoxic respiratory failure between 24+1 to 34+2 weeks (mean 27±6w) and birth weight 540- 2980g (mean 1321g). 11/24 had PROM ≥2wks. Mean age at starting iNO was 19 hours (1.7- 240 hrs). There was significant difference in Oxygenation index (OI) before and one hour after administration of iNO (p<0.0001 Wilcoxon test) Fig 1. 16/24 (67%) survived and 8/24 (33%) died, birth weight was significantly higher in survived group (p= 0.0152), but there was no significant difference in gestational age (Mann-Whitney p= 0.6404) between survivors and non-survivors. 9/11 (82%) with PROM ≥2weeks survived versus 7/13 (54%) with PROM<2weeks (p=0.2108 Fisher’s exact test). 3/16 of survivors had grade III-IV IVH versus 2/8 of non-survivors in the first two weeks of life. In Survival group, discharge cranial ultrasound showed normal results 10/16 (63%), hydrocephalus 2/16(13%), PVL 3/6(19%) and hydrocephalus + PVL 1/6(16%). 10/16 (63%) had chronic lung disease, however only 6/16 (37%) discharged on home oxygen. 10/16 (63%) were eligible for 2 Year Neurodevelopmental assessment and 5/10 (50%) showed age appropriate development.

Fig 1: OI before and 1 hour after iNO

**Conclusion:** Reversal of pulmonary hypertension and hypoxia was rapid and effective in our cohort of preterm infants. Patients with PROM ≥2wks showed dramatic response to iNO and had higher rates of survival. The outcome of this cohort of very sick preterm infants is multifactorial; however survival was 67%, only 37% of them needed home O2 and 50% had normal development at 2 years.

**Autism Spectrum Disorder Screening in a Primary Care Facility**

**Introduction:** Autism spectrum disorder (ASD) is a neurodevelopmental dysfunction that affects 1 in 88 children. Clinical manifestations are usually present by the second year of life with a general developmental delay, however most children are not diagnosed until age four or older. Early detection of this condition is essential to establish effective behavioral intervention allowing a better prognosis. The American Academy of Paediatrics recommends screening of all children between 18 and 24 months old. The modified checklist for autism in toddlers revised with follow-up (M-CHAT-R/F) is a valid screening tool that detects ASD at a higher rate when compared to the M-CHAT previously used.

**Purpose:** The aim of this study was to characterize the prevalence of autism spectrum disorder in children from 18 to 24 months in a primary care facility using the M-CHAT-R/F.

**Material and Methods:** This was a cross-sectional study. Demographic characteristics of the sample and results were analysed through descriptive statistic methods using SPSS version 20.0. All 220 children between 18 and 24 months from February to June of 2017 enrolled in the family health Unit with a total of 17000 patients were invited to take part in the study. Nine chose not to participate and 50 couldn’t be contacted after three attempts, leading to a final sample of 160 children (response rate: 72%) The M-CHAT-R/F is validated for the Portuguese population. The authors applied the survey by telephone interview to parents/legal guardians. Demographic characteristics of the sample such as sex, parental age, family history of ASD and primary care attendance were also obtained.

**Results:** Fifty four percent of the sample (n=160) were female with a mean age of 23 months at the time of the contact (standard deviation 3.2). Of all the screenings made 4 scored positive (2.5%). One was already accompanied due to general developmental delay in the context of external hydrocephaly and, therefore, no follow-up interview was done. The three follow-up interviews were negative for autism spectrum disorder.

**Discussion:** Our work represents an exploratory study, as there are no similar studies published in our country.
When comparing to studies published in other countries our positive screening rate was lower which could be justified by a low number of participants enrolled.

Conclusion: Despite our results the M-CHAT-R/F is a useful test in primary care, easy to apply and enables an early detection of ASD, as described in the literature.

**CLINICAL IMPACT OF GENOMIC MICROARRAY IN NEURODEVELOPMENTAL DISORDERS: 3-YEARS EXPERIENCE.**

**Andreia Ribeiro1, Maria Adriana Rangel1, Teresa Pena1, Isabel Pereira1, Cátia Leitão1, Armanda Passas1, Ana Lopes1, Susana Pereira1, Helena Santos1**

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**Introduction:** Comparative genomic hybridization (CGH)-microarray is a genetic tool that analyzes the whole genome for detection of sub microscopic gains or losses of genetic material. Clinicians have increasingly used it as a first line evaluation tool of children with multiple anomalies/malformations not attributable to a known genetic syndrome, non-syndromic Intellectual Developmental Disorder (IDD) and Autism Spectrum Disorder (ASD).

**Purpose:** To describe the experience of a Portuguese paediatric neuroscience unit with CGH-microarray technique for etiological study of neurodevelopmental disorders (ND) and to determine predictors of pathogenic results.

**Materials and Methods:** Retrospective observational and analytical study of paediatric patients with neurodevelopmental disorders in which CGH-microarray was used, during a three year period (2014-2016).

**Results:** CGH-microarray was performed in 335 patients, 68.4% males, with a mean age of 8.1±4.0 years. Seventy seven percent had IDD, 28.1% dysmorphic features, 20.6% ASD, 16.1% attention-deficit/hyperactivity disorder (ADHD) and 7.5% had a familial history of IDD. Microarray abnormalities were identified in 18.8% (n=63) of patients (54.0% microduplication; 39.7% microdeletion; 6.3% with both); 44.4% (n=28) of the abnormalities were pathogenic, 15.9% (n=10) possibly pathogenic and 39.7% (n=25) variations of unknown significance (VOUS). Pathogenic microarray abnormalities were found in 25.5% of patients with dysmorphic features, 12.8% with IDD and 7.2% with ASD. Dysmorphic features were similar to phenotypes already described in their pathogenic variants in 59.4%. Sixteen percent (n=10) of parents of children with pathogenic variants performed microarray analyses and 30.0% (n=3) of them had the same genetic abnormality (2 with similar phenotype). As part of an etiological study, 48.1% performed previous karyotype testing, 48.1% cerebral MRI (normal in 73.5% and 45.3% metabolic study (normal in 85.5%). CGH-microarray allowed etiological diagnosis in 11.9% (19/160) of children with previous normal karyotype. Patients were divided in two groups according to CGH-microarray result (pathogenic vs not-pathogenic), and an association was found between pathogenic microarray and female gender (p=0.006) and the presence of dysmorphic features (p<0.001).

**Conclusion:** The results of our study are in agreement to those previously described, namely the prevalence of pathogenic variants and its association with dysmorphic features. The use of this genetic technique allowed a higher etiological diagnostic yield than high-resolution karyotype. Etiological diagnosis of ND brings benefits to clinical practice such as prognostic information and more adequate genetic counselling to the family.

**NEONATAL JAUNDICE AND ITS MAIN RISK FACTORS – A CROSS-SECTIONAL STUDY**

**Ana Reis e Melo1, Mayara Nogueira2, Cláudia Teles Silva1, Marta Rosário1, Jorge Santos Silva1, Gorett Silva1, Hercilia Guimarães1,2**

1Serviço de Neonatologia, Hospital Pediátrico Integrado, Centro Hospitalar de São João, Portugal; 2Faculdade de Medicina da Universidade do Porto, Porto, Portugal; anareismelo@gmail.com

**Introduction:** Neonatal jaundice is frequently diagnosed during the first days of life of newborns in perinatal care. Recent data has implicated neonatal jaundice and its mainstay treatment – phototherapy - with several diseases like asthma, autism and even cancer. Although the standardized use of phototherapy according with the American Academy of Pediatrics guidelines published in 2004 allowed the responsible use of this specific therapy, a permanent monitoring is needed.

**Purpose:** It seems important to characterize the major clinical risk factors for developing jaundice to be more alert in those cases and to evaluate the threshold to initiate phototherapy making its use more judicious.

**Materials and Methods:** In this cross-sectional study, all newborns born between November 2016 and February 2017 in Maternity /Perinatal care of a tertiary hospital were evaluated. A formulary was filled up of each newborn with the following items: gestational age, sex, mode of delivery, delivery trauma, ABO/Rh incompatibility and feeding type. If neonatal jaundice was diagnosed, the bilirubin level at that time, use of phototherapy, hour of life beginning phototherapy, serial bilirubin levels and hours of phototherapy were recorded. Newborns with intensive care management were excluded. Statistical analysis was made with SPSS 24, which included descriptive analysis and application of T-student test and chi-square test.

**Results:** 302 newborns were included, of which 50.7% were male. The mean for gestational age was 38.94 weeks (SD 1.36 weeks), eutocic delivery corresponded to 47.5% of deliveries, followed by C-section (28.2%) and vacuum assisted (24.3%), with none forceps delivery. 67.4% of neonates were exclusively breastfed with only 1% being exclusively non-breastfed. 72.4% didn’t have any blood incompatibility but, when present, Rh incompatibility was the most common (10%). 14 had caput succedaneum. Neonatal jaundice was detected in 205 (67.9%) newborns with 78 needing phototherapy. Mean duration of phototherapy was 36 hours (SD 20.4). The incidence of newborns needing phototherapy was higher in males (p=0.03), in vacuum-assisted delivery (p=0.03) and in the presence of caput succedaneum (p=0.02).

**Conclusion:** The identification of the clinical risk factors associated with neonatal jaundice and ultimately to the use of phototherapy help the clinical practice. In our study, the characteristics associated with this therapy were according to the literature. More studies are needed to assure the restricted use and safety of phototherapy, with particular concern about long-term side effects.
### OP5: ORAL PRESENTATIONS: SESSION 5

**ID: 141 / OP5: 9**

**Oral Presentation**  
**Topics:** Emergency Pediatrics

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**THE INITIAL WESTLEY SCORE IN PREDICTING THE OUTCOME OF CROUP**

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**Background:** Westley croup score has been generally used to assess the severity of croup. This study aimed to identify the individual factors associated with Westley score (WS) and other clinical factors in predicting the outcomes in the pediatric emergency department (PED).

**Population and Method:** We prospectively recruited patients with croup from the PED. The individual factors in WS, fever, age, and the length of hospital stay were analyzed to predict clinical outcomes. We calculated all the areas under the receiver operating characteristic (ROC) curve to determine the cut-off values of initial WS discriminating the need for admission to the wards.

**Result:** A total of 192 patients with croup were enrolled. Cyanosis and altered consciousness were not clinically significant even in patients with severe croup, whereas retraction and air entry were the major factors in WS for predicting clinical outcomes. The initial WS had a strong correlation with the length of hospital stay ($r=0.617$, $p<0.001$). ROC analysis showed that patients with an initial WS $<2$ (sensitivity, 5%; specificity, 100%; LR+, 1.05; LR−, 0; AUC, 0.87) were discharged home while the patients with an initial WS $\geq 5$ (sensitivity, 99%; specificity, 57%; LR+, 41.0; LR−, 0.43) may require to stay in the PED. Patients with a WS $\geq 6$ may need to admit to the wards (sensitivity, 97%; specificity, 47%; LR+, 416.35; LR−, 0.54; AUC, 0.90)

**Conclusion:** Patients with an initial WS of 1 to 2 could be safely treated at home and those with initial WS $>5$ required hospitalization for further treatment.

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**ID: 274 / OP5: 10**

**Oral Presentation**  
**Topics:** General Pediatrics, Neurology

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**DISAPPEARING TUBERS, DISAPPEARING DIAGNOSIS – A CASE REPORT**

*Pedro Marinho*¹, Raquel Oliveira¹, Ana de Carvalho Vaz¹, Ângela Pereira², João Paulo Fernandes³, Mariana Costa¹, Célia Barbosa²  
¹Unidade de Saúde Local do Alto Minho, Hospital de Santa Luzia, Portugal; ²Hospital de Braga, Portugal; ³a.pedro.marinho@gmail.com

**Introduction:** In Medicine, decisions are often guided by results of diagnostic techniques, from blood tests to imaging. However, things are not always what they seem - the interpretation of these results can sometimes lead the etiological investigation away from the correct condition, which can be unveiled after following how the patient develops through time. The authors' report describes one of such cases.

**Case report:** The authors report the case of a previously healthy 5-year-old male patient, admitted to the Emergency Department (ED) after an afebrile seizure, following multiple vomiting episodes over the previous two days. At arrival, the patient presented marked somnolence, without other relevant findings on physical exam. Blood tests revealed increased inflammatory markers (Total Leukocyte Count 22000/ul; C-reactive Protein 2.00 mg/dL). An initial Low-field MRI revealed findings compatible with ADEM, and did not exclude the possibility of some degree of intracranial hypertension, reason why a lumbar puncture was not performed. Treatment protocol of ADEM was initiated, and the patient improved dramatically over the next 12 hours. A later report of the same Low-field MRI results (by a Neuroradiologist) described the presence of multiple areas that appeared to be cortical tubers, as well as lesions in other areas that could point towards other diagnoses, such as ADEM. A High-field MRI was performed 4 days after the first one, which confirmed the presence of cortical tubers, as well as lesions in the thalamus and caudate nucleus. An Electroencephalography (EEG) revealed a very disorganized and altered trace, and anticonvulsive medication was initiated. The patient was discharged and followed in outpatient consult, and no other findings expected in TS were obtained, including skin lesions, renal, cardiac or opthalmic abnormalities. Genetic testing was negative for mutations in TSC1 and TSC2. An EEG was repeated 6 months later, without any abnormalities identified - the anticonvulsive medication was stopped-, and a High-field MRI was repeated after 2 years, with no pathological findings described. During the investigation period the patient was asymptomatic, with normal psychomotor development.

**Conclusion:** The disappearance of the previously observed abnormalities in the initial MRI excludes the diagnosis of Tuberous Sclerosis. These lesions were of probable inflammatory etiology, but without definitive conclusion, since the MRI findings offer a wide variety of differential diagnoses. The evolution of the patient's condition was not typical of ADEM.
PO1: POSTER PRESENTATIONS: SESSION 1

Poster Presentations

ID: 296 / PO1: 1
Poster Presentation  Topics: Dermatology, Adolescent Wellbeing

SEVERE FEBRILE NEUTROPENIA IN ISOTRETINOIC ACNE TREATMENT AND UPPER AIRWAY INFECTION

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Introduction: Acne is one of the most common diseases in adolescents. In serious cases treatment with isotretinoic has excellent outcome, nevertheless with sometimes serious life threatening complications such as leucopenia, neutropenia and thrombocytopenia.

Purpose: To alert pediatric community in the safe isotretinoic use for acne treatment.

Case Report: A 15 yr. old male adolescent admitted in our casualty with an history of hyperpyrexia 39.9oC, abdominal pain, vomiting and lower back pain over 48hrs. From clinical examination he was in poor general condition with hyperpyrexia despite the use of antipyretics, tachycardia, diffuse abdominal pain, pharyngitis, painful cervical lymphadenopathy, spleen and liver enlargement and anuria. Severe cystic acne lesions noted in chest, back and face. He was on isotretinoic treatment for the last 10 days. He had received same medication 4 months ago, which was discontinued due to side effects. Blood tests showed severe leucopenia with neutropenia, thrombocytopenia, markedly elevated CRP, increased serum urea and creatinine with further clinical and laboratory deterioration over the next 12 hours (table 1).

<table>
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<th>Time</th>
<th>WBC/μl</th>
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<th>N/μl</th>
<th>Lym %</th>
<th>N/μl</th>
<th>Mono %</th>
<th>N/μl</th>
<th>Hb g/dl</th>
<th>PLT/μl</th>
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</tbody>
</table>

Table 1

Patient was treated with broad-spectrum antibiotics as severe febrile neutropenia and systemic inflammatory reaction syndrome (SIRS) with immediate clinical and laboratory improvement within the next 24 hours. There was concurrent acne lesions improvement.

Conclusion: We concluded that our patient had SIRS, due to isotretinoic bone marrow suppression, possibly during the course of an upper airway infection (pharyngitis). Isotretinoic treatment in acne despite excellent results must be used cautiously and patient must be informed in details for the possible side effects of bone marrow suppression and the need for medical advice in cases of a febrile disease.

ID: 224 / PO1: 2
Poster Presentation  Topics: Dermatology

PITYRIASIS AMIANTACEA: A CHALLENGING DIAGNOSIS IN PAEDIATRICS

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Introduction: Pityriasis Amiantacea (PA) is an uncommon clinical condition of the scalp. It usually occurs in children and is characterized by masses of thick, adherent, silvery or yellowish scales, resembling asbestos fibers, surrounding and binding down tuffs of hair. Its exact etiology remains unclear but it is typically considered an exaggerated inflammatory pattern response that affects the scalp, mainly caused by seborrheic dermatitis, psoriasis and tinea capitis. The diagnosis is clinical but mycological examination and cultures are useful. Treatment should be directed towards the causal dermatosis, and includes keratolitic agents, topical steroid and/or antifungal. The authors present a case report of PA and alert Paediatricians for the clinical features of this condition, for a timely diagnosis and treatment.

Case report: A two-year-old boy was referred to a Hospital Paediatric Dermatology Department with a four-month history of scalp desquamation, without pruritus. His past medical and familial history were unremarkable. Examination of the scalp revealed thick, yellowish and adherent scales, binding down tuffs of hair at frontoparietal regions, without erythema and alopecia. Nails and skin in other parts of the body were normal. The mycological cultural was negative. This findings were suggestive of seborrheic dermatitis. In this case, the PA responded to treatment with antifungal shampoo and salicylic acid cream.
Conclusion: PA is a distinctive inflammatory condition but often under-recognized by Paediatricians. A detailed examination of all the skin may give an indication of the primary skin disorder, which determines treatment modality. The Paediatric Dermatology should be involved in cases of initial treatment resistance or suspicion of other diseases. As Paediatricians, it is important to be informed of this disease and select patients who should be referenced to Dermatology.

SURVEILLANCE OF CHRONIC KIDNEY DISEASE IN A NIGERIAN RURAL SETTING
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Introduction: Chronic kidney disease (CKD) is a worldwide public health problem. In Nigeria, incidence in children ranges between 2-6 cases per annum. The effectiveness of its early detection and treatment to prevent progression to End Stage Renal Disease (ESRD) has become widely accepted, while the strategy of its screening is still debatable. Hypertension, proteinuria and obesity are the most important modifiable risk factors for renal disease.

Purpose: To evaluate the usefulness of community based screening tools for early identification of CKD in children. To educate the public on the risk factors for CKD in this age group.

Methods: A cross-sectional descriptive study was conducted in a rural community in the South Eastern part of Nigeria. 280 children were enrolled. Morning mid stream urine samples were tested by dipstick. Children with abnormal findings were re-tested on another day. Height, weight and blood pressure measurements were documented for the respective children. Blood pressure measurements were repeated on 3 occasions if greater than or equal to 95th centile for age and height.

Results: Early morning urine was available for urine dipstick test in 265 children: 141 (53.2%) males. The median age was 6.30 (0.43 – 16.48) years. Risk factors for CKD (proteinuria, hypertension, obesity) were detected in 11.7% (31/265). Proteinuria was documented in 3.7% (10/265) after confirmation with a second dipstick test. Hypertension was detected in 5.6% (15/265) after 3 separate measurements. Body mass index of Z-score >3 was documented in 2.2% (6/265). There was no statistically significant correlation between the risk factors and independent variables (age and sex).

Conclusion: Screening for modifiable risk factors for CKD will result in early detection of renal disorders in childhood. This community based study highlights the prevalence of risk factors for CKD in asymptomatic children; up to 11.7% in this study population. Hypertension is the commonest risk factor in this population.

MATERNAL EXPOSURE TO AMBIENT AIR POLLUTANTS DURING PREGNANCY AND ADVERSE BIRTH OUTCOMES IN THE REPUBLIC OF KOREA
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Introduction: During recent years, air pollutants were important social issues in the Republic of Korea. Air pollution is a major global health concern and effects on many health problems.

Purpose: In this study, we analyzed association of adverse birth outcomes (preterm births, low birth weights) and ambient air pollutants.

Materials and Methods: A total of 1,802,925 records of singleton births were examined using the National Birth Registration Database, from 2010 to 2013. We obtained concentration of sulphur dioxide (SO2), nitrogen dioxide (NO2), carbon monoxide (CO), ozone (O3), and particulate matter less than 10 micrometers in diameter (PM10) from 2009 to 2013. Mean concentration of each air pollutants during pregnancy were calculated and matched to birth data by registered regions. We analyzed proportion of adverse birth outcomes between two groups by dividing air pollutant concentrations with World Health Organization criteria. Add to that, we compared the proportions between the first quartile and the rest of concentrations. A multivariate logistic regression model was used to assess the effect of air pollution in each region on preterm birth (less than 37 weeks gestation) and low birth weight (less than 2,500 gram).

Results: The adjusted odds ratio (aOR) of PM10 over 70 μg/m³ for preterm birth was 1.530 (C.I. 1.436 – 1.630). The aOR of highest quartile of SO2 was 1.056 (C.I. 1.046 – 1.067) and CO (aOR: 1.031, C.I. 1.020 – 1.041), O3 (aOR: 1.139, C.I. 1.127 – 1.152), and PM10 (aOR: 1.022, C.I. 1.012 – 1.033) were associated with preterm births. However, low birth weight was not associated with exposure to air pollutants.

Conclusion: Maternal exposure to ambient air pollutants during pregnancy was associated with preterm birth. Especially, exposure to PM10 over 70 μg/m³ may increase the risk of preterm birth. Further research for the mechanism and education for pregnant women to avoid exposure are needed.
ASSOCIATION OF VISCERAL ADIPOSY INDEX WITH SERUM URIC ACID IN OBESE CHILDREN IN A TERTIARY CARE CENTRE IN SRI LANKA

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Introduction: Hyperuricaemia has emerged as an important metabolic marker of non-communicable diseases and have found that uric acid (UA) levels in obese individuals are quite high. More than the total adiposity, certain patterns of distributions are related to metabolic defects, which are not reflected by anthropometry. Visceral adiposity index (VAI) is formulated using anthropometry (Body mass index (BMI) and Waist circumference (WC)) and metabolic effects (Triglyceride (TG) and LDL). Its usefulness is not validated in Sri Lankan children.

Purpose: To investigate the relationship between VAI and hyperuricaemia among metabolically abnormal obese Sri Lankan children and to compare the risk predictive ability for hyperuricaemia between VAI and other obesity indices including BMI, WC, waist-to-height ratio (WHR).

Materials and Methods: A cross-sectional analytical study was conducted among 5-15 year-old obese children (BMI for age >+2SD of median (WHO standards)). After a 12-hour overnight fast, blood was drawn for glucose, lipid profile, insulin and UA. OGTT was done with anhydrous glucose 1.75g/kg body weight (max 75g). Random plasma glucose (RPG) and insulin was done 2 hours later. Height, weight, WC and blood pressure (BP) were measured. The considered obesity associated metabolic abnormalities were WC-SDS (>+2SD), Systolic and Diastolic BP (>+2SD),fasting plasma glucose (FPG) (>100mg/dL) or 2 hour RBS (>140mg/dL); HDL(<1.03 mmol/L); triglyceride (≥1.7 mmol/L). Metabolically abnormal obese child was defined as someone having abnormality in two or more of the above parameters. Insulin resistance was assessed using HOMA-IR.

Results: Of the 205 obese children (mean age (SD) 9.80 (2.0)), 137 were metabolically abnormal. Compared with metabolically normal group, the abnormal group had higher levels of UA (286±71.5 vs 281±70.1μmol/L) BMI-SDS (2.8±0.6 vs 2.7±0.7) but was not statistically significant. However metabolically abnormal were compared with normal WC-SDS (3.14±0.6 vs 2.9±0.6), VAI (2.35±1.6 vs 1.1±0.5), HOMA-IR (3.2±1.9 vs 2.5±2.3), TG (1.4±0.7 vs 0.9±0.3 mmol/L), and HDL (0.9±0.2 vs 1.3±0.2 mmol/L) showed statistically significant differences. UA and VAI showed significant correlations with metabolic parameters but not with anthropometric indices. ROC curves were developed for VAI and anthropometric indicators in predicting hyperuricaemia in obese children with two or more metabolic abnormalities. Only VAI showed a significant ROC curve with AUC of 0.715. At a cut-off of 1.98 VAI had sensitivity of 77.1% and specificity of 60.4% in predicting hyperuricaemia.

Conclusion: UA and VAI had a significant association between each other in addition to the association they both showed with obesity related metabolic abnormalities. VAI was a strong predictor of UA levels that were associated with the presence of two or more obesity related abnormal metabolic parameters.

PHYSICIAN PERSPECTIVES ON END-OF-LIFE CARE AND PEDIATRIC PALLIATIVE CARE FOR CHILDREN IN THE REPUBLIC OF KOREA

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Introduction: Despite significant advances in disease treatment, resources for the pediatric palliative care (PPC) for children with serious illnesses are limited in South Korea. The obstacles to provide optimal PPC include inadequate funding, shortage of specialized professionals, and healthcare system, but the perception of health professionals is also very important.

Purpose: This study explored pediatric doctors’ perception of end-of-life care and needs on PPC in Korea.

Materials and Methods: The study survey was developed based on a review of the palliative care literature and sample physician interview. A questionnaire was sent via online survey and mail to the pediatric doctors with specialized boards working at 43 tertiary hospitals in South Korea.

Results: A total of 118 doctors responded to the survey. The median age was 37 years, 53% were female and 76% answered they have own child. Eighty percent responded that, in the previous 2 years, they cared for more than one pediatric patient who died. When asked about appropriate age for terminal state disclosure, 6%, 30%, 42% and 14% answered that pediatric patients should be informed if they are aged over 4, 7, 12, and 15 years old respectively. As for the life-sustaining treatments (LSTs) decision, 24% answered that discussions should be started when a child is diagnosed with incurable diseases, and 48% said advance care planning is needed in a state of constant deterioration even though actual death is not expected. Although only 7% of pediatric doctors had personal desire for use of LSTs when their own disease is incurable and in the deteriorating state, more respondents (29%) showed preferences to LSTs for children in the same situation. More than half of the respondents answered that they are not confident about advance care planning including LST decisions. Most respondents reported experiencing difficulties in PPC areas such as symptom management, ethical problems, and psychosocial support more than once every six months. Pediatric doctors indicated to the barriers to pediatric palliative care implementation as follows: the attitude of parents who prefer aggressive treatment (19%), shortage of PPC professionals and organizations (18%), negative perception on PPC among health professionals (16%), lack of financial support for PPC (12%), inadequate linkage between curative and palliative care (12%), and difficulties to decide when to refer a patient to PPC (10%).

Conclusion: Our study showed pediatric doctors in Korea have low preferences to LSTs for children in the terminal state and perceive the needs of PPC. The results will guide the health authorities to design PPC program in Korea.
ALSO AT THE CONFERENCE

PO1: POSTER PRESENTATIONS: SESSION 1

ID: 174 / PO1: 7
Poster Presentation  Topics: Allergy, Immunology & Pulmonology, Emergency Pediatrics

EFFECTIVENESS OF RAMATHIBODI PEDIATRIC ASTHMA GUIDELINE ON THE HOSPITALIZATION RATES OF CHILDREN PRESENTED TO EMERGENCY ROOM WITH ASTHMA EXACERBATION
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Background: Asthma exacerbation remains common problems in emergency rooms (ER) worldwide. Ramathibodi’s Pediatric Acute Asthma Management (R-PAAM) guideline was developed since 2013.

Objective: To evaluate the R-PAAM guidelines’ effectiveness. Our hypothesis is appropriate management of pediatric asthma in ER may prevent hospitalization.

Method: Retrospective chart review acute asthmatic attack pediatric patients whom visited ER at Ramathibodi hospital since April 2011 to January 2016. The patients were categorized into guidelines used and non-guidelines used group. Matched case-control 1:1 by propensity score matched using 7 covariates. Comparisons were made between 2 groups in terms of admission rate, ICU admission rate, time spent in ER and ER revisited rate within 7 days.

Results: The total of 385 ER visits was recruited. Sixty four percent had mild exacerbations (clinical scores 0-3). One hundred fifty visits were matched and divided into case-control. Admission rate (28% vs. 44%, p=0.041) was lower in guideline-used group, especially in mild exacerbation patients (5.7% vs. 31.6%, p=0.005). Time to first inhaled bronchodilator (10 min vs. 13 min, p=0.037) and systemic steroid (51 min vs. 62 min, p=0.039) were also shorter in guideline-used group. ICU admission rate (4% vs.6.7%, p=0.467), time spent in ER (88 min vs. 95 min, p=0.368), and revisited rate within 7 days (7.4% vs. 4.8%, p=0.595) were not significantly different amongst the two groups.

Conclusion: R-PAAM guideline seems to be the hospitalized-reduction tool for pediatric patients who had exacerbation, especially for mild severity. Early systemic steroid and bronchodilator administration seems to be contributing factors.

ID: 172 / PO1: 8
Poster Presentation  Topics: Child Mental Health

AUTISM AS A “NARCISSISTIC” DISORDER: SOCIAL IMPLICATIONS
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Introduction: ASDs are increased and etiopathogenesis is unidentifiable.

Purpose: It is essential for new aspects to emerge.

Material and Methods: Literature review.

Results: At mythology, Narcissus was a handsome young man who was indifferent to the love expressed by others and did not respond to the love of the Nymph Echo. One day he saw his reflection in the waters of a spring and was so enchanted – it was the only thing he managed to love – that he wanted to touch it. This was impossible since, as soon as his hand touched the water, it dissolved. In his insistence to succeed, he eventually drowned. Early characteristics of autistic children are reduced eye contact, inability to share not only a game but also interests or emotions, while later they may develop difficulties in understanding the feelings and intentions of others (theory of mind). These autistic characteristics are a deficiency in prosocial behavior (a form of social behavior aimed at the benefit of other people or society as a whole through help, sharing and cooperation) and empathy. The deficiency in prosocial behavior observed in autism reflects the failure of developmental transition from the “self” (egocentric approach) to the “other” (allocentric approach). So, autism is a “narcissistic” disorder where empathy, friendship, affection for others, help, sharing and cooperation are handicapped areas. Research has revealed the anatomical and biological basis of neural circuits involved in empathy and prosocial behavior. The anterior cingulated cortex as an anatomical structure and oxytocin as a neurotransmitter play a predominant role in these functions and both are disturbed in autism.

Conclusions: According to the above and given that the incidence of autism is growing dramatically today, the question arises whether we are heading towards societies where egocentrism, narcissism, callous-unemotional behavior, lack of friendship and affection will be dominant. Does, like Narcissus of Greek Mythology who was deaf to the call of the enamoured with him Echo until he died admire himself in the river, the modern autistic reflects the indifference of society to the request for affection, reciprocal help and altruism? Thus, it is imperative for parents and health professionals to timely detect the early characteristics of prosocial behavior deficiency in children (and early intervene), not only because it leads to timely detection of autistic disorder (personal benefit), but also because it contributes to the creation of societies where altruism, cooperation and reciprocal help will be dominant (social benefit).

ID: 222 / PO1: 9
Poster Presentation  Topics: General Pediatrics, Rare Diseases

BALANCE EVALUATION IN A CHILD WITH CONGENITAL RADIOULNAR SYNOSTOSIS
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Introduction: Congenital radioulnar synostosis (CRUS) is a rare malformation that causes restriction of supination and pronation movements of the forearm. Children with CRUS have difficulty in some activities, such as eating, washing the face, drinking from the cupboard, while the child can perform daily activities. Upper extremities movements can affect on standing and balance. The aim of the study is to examine the effects of upper extremity deformities on balance in a child with CRUS.

Case Report: A 7-year-old male patient with CRUS was admitted to the physical therapy unit who have not undergone a surgery. Upper extremity joint range of motion (EHA) measurements were performed with a goniometer and hand functions were assessed using the Jebsen Hand Function Test (JHFT). The balance was assessed with the Biodex Balance System® (BBS) and limits of stability (LoS), and modified
CHARACTERIZING UNINTENTIONAL POISONING CASES AT THE PEDIATRIC EMERGENCY DEPARTMENT AT WOLFSON HOSPITAL BETWEEN 2008 AND 2016

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Introduction: In Israel there are approximately 180,000 Pediatric Emergency Department (PED) visits, 25,000 admissions and 150 deaths annually due to unintentional injuries. PED visits and subsequent hospitalizations of children after unsupervised ingestion of medication are on the rise despite widespread use of child-resistant packaging and the efforts of educational caregivers. According to the National Toxicology Center, there are almost 30,000 consultations annually with approximately 50% pediatric cases. Poisoning is considered a major cause of death among these patients.

Purpose: The purpose of this study is to characterize all our PED unintentional poisoning cases. This could help identify prevention priorities and create intervention strategies.

Materials & Methods: In this prospective ongoing study, and as a part of the National Pediatric Injury & Safety Surveillance (NAPIS) program, we, in collaboration with the Beterem organization, have created a computerized system for collecting data for all the PED visits due to unintentional injuries. The minimal data set (MDS) is based on the WHO recommendations. In addition, we have used the Poisoning by Medication and by Household Agent codes. The population includes patients aged 0–18 years, seen in Wolfson Medical Center PED during 2006–2016. Cases of intentional injuries were excluded.

Results: During that period, two hundred and forty four (244) poisoning agents were identified in 199 patients. In 34/199 (17%), more than 1 agent was involved. Drugs were involved in 97.8% of the cases. As expected, the majority (150/199, 75%) were under the age of 5 years. Surprisingly, girls were more common - 118/199 (58%), compared to only 83/199 (42%) boys. The most common poisoning agents were: antipyretic medications (20%). The most common place of intoxication was at home (80%).

Conclusion: It was observed that he had difficulty in subtests of JHFT particularly as writing, page turning and feeding. Compared to the JHFT results of healthy children of the same age group, (Baegley SB, 2016), our case was completed the subtest in longer periods, except for the light and heavy object. In the balance tests performed with BBS, our case’s scores were considerably lower than the goal scores. The forces and moments brought by upper extremity movements can affect standing and balance. We think that balance assessment in patients with upper extremity dysfunction will affect the treatment positively, and increase the quality of life of the patient.
Abstracts

Demonstrations of testing water, installing filters, and cleaning aerators were given in videos.

- Lead water contamination: The session focused on lead contamination and the effects of lead on the mother and baby. Types of food to consume if exposed to lead were discussed.

- How to take care of oneself to have a healthy pregnancy one day: The session focused on the importance of a healthy diet, use of folic acid, and regular exercise.

- Lead water contamination: The session focused on lead contamination and the effects of lead on the mother and baby. Types of food to consume if exposed to lead were discussed.

- Prevention of exposure to contaminated water: Demonstrations of testing water, installing filters, and cleaning aerators were given in videos.

Results: A total of 27 women completed the course. Most women were White/Caucasian, were either married or in a committed relationship, and had health insurance. A higher percentage of women answered true/false and multiple-choice answer questions on lead correctly at follow-up compared to baseline. For example, at baseline, 77.8% of females (21 of 27) correctly answered the question “Eating food high in calcium, iron and vitamin C may help protect the pregnant woman and her unborn baby from lead poisoning” compared to 96.3% (26 of 27) at follow-up. In addition, 25.9% of participants (7 of 27) stated they were confident/very confident in installing a lead water filter on a kitchen sink at baseline compared to 88.8% (24 of 27) at follow-up.

Conclusion: Knowledge about lead and strategies to prevent exposure to lead increased from pre- to post-test. This study may assist in the development of a randomized-controlled trial on the influence of an improved intervention on healthy behaviors and pregnancy outcomes.

ID: 201 / PO1: 13
Poster Presentation  Topics: Rare Diseases

10 YEAR-OLD GIRL WITH JUVENILE ARTHRITIS AND ALPHA-1 ANTIMYRPSIN DEFICIENCY

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Introduction: The majority of studies confirm the association between alpha-1 antitrypsin deficiency and juvenile idiopathic arthritis (JIA). Reduced concentrations of alpha-1-antitrypsin may be insufficient to inhibit the proteolytic enzymes released into the joints of patients with rheumatoid arthritis during phagocytosis of immune complexes, and it may promote severe joint destruction [Cox et al. 1980]. Alpha-1 antitrypsin deficiency is caused by point mutations in the SERPINA1 gene, and most common genotypes are Pi*SZ, Pi*ZZ, and Pi*S*S.

Genotype Pi*ZZ is present in 95% of individuals with clinical manifestations [de Serres & Blanco 2012] although less than 10% of severely affected people are currently diagnosed [Stoller et al. 2013]. Individuals with Pi*ZZ genotype usually have a serum concentration of alpha-1 antitrypsin that is approximately 10-20% of normal [Stoller et al. 2007] and are at high risk for both severe liver and lung damage.

Case report: A 2-year-old girl was first admitted to hospital with a swollen right knee. Ultrasound revealed bilateral prepatellar bursitis. Rheumatoid factor, antinuclear antibodies, anti-ßDNA antibodies and HLA B27 antigen were negative. However, there were positive parovirus B19 IgM antibodies. Two months later patient returned to hospital with complaints of pain in both knees. Physical examination showed limited range of motion in right knee, subcutaneous tissue atrophy in both upper and lower legs, and soft-tissue swelling of both ankles. Girl was diagnosed with juvenile idiopathic arthritis. Therapy with nonsteroidal anti-inflammatory drug was initiated. Four months after first admission, elevation of liver enzymes (ALAT – 84 U/I, ASAT – 59 U/I) was noticed. It was decided to test alpha-1 antitrypsine level in serum, which turned out to be decreased. Molecular genetic testing was done and mutation Pi*Z of the SERPINA1 gene was found in the homozygous form (genotype Pi*ZZ). In later years disease went into remission and no pharmacological therapy was necessary. Currently patient is 10 years old. Lately, she has been complaining about pain in right knee. Laboratory tests reveal vitamin D deficiency, but liver enzymes stays within normal range. Most recent ultrasound shows bursitis in right knee. For disease control it is necessary to choose medications without hepatotoxicity.

Conclusion: Alpha-1 antitrypsin deficiency is a rare coincidence with JIA, may be a risk factor for development of JIA and also a challenge when it comes to choosing disease-modifying antirheumatic drugs.
EVALUATION OF CLINICAL AND IMMUNOLOGICAL CHARACTERISTICS OF CHILDREN WITH COMMON VARIABLE IMMUNODEFICIENCY

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Introduction: Common variable immunodeficiency (CVID) is a primary immunodeficiency (PID) that typically presents with hypogammaglobulinemia and impaired antibody production. It is one of the most frequently occurring PID disorders, after IgA deficiency and transient hypogammaglobulinemia.

Purpose: This study aims to promote awareness of CVID, whose clinical spectrum is quite broad.

Materials and Methods: The demographic, clinical, and laboratory characteristics of 12 children (seven male, five female) with CVID were analyzed retrospectively. Patients were diagnosed in line with the diagnostic criteria of the European Society for Immunodeficiency Diseases.

Results: The median age at disease onset was 6.4 ± 5.2 years, and the mean age at diagnosis was 11.6 ± 3.8 years. The delay in diagnosis was 5.1 ± 3.3 years. Additionally, in nine of the 12 cases, there was parental consanguinity. Overall, 75% of patients reported frequent infections. Recurrent lower respiratory tract infection (percentage with LRTI-10: 83.3%), recurrent upper respiratory infection (percentage with URI-8:66.6%), and recurrent gastroenteritis (five cases; 41.6%) was learned from the anamnesis collected at diagnosis. Growth retardation was detected in 75% of patients, and bronchiectasis presented in four patients (33.3%). We detected autoimmune disease in five patients (41.6%). All patients diagnosed with autoimmune diseases were over the age of 10. Patients with CVID before the age of 10 years are more susceptible to infections rather than non-infectious complication. The Ig G levels of 10 patients (83.3%) were low; those of another two patients were found upon follow-up to have decreased. The number of 8 cells in CVID patients is variable. All patients received IVIG replacement therapy at doses of 500 mg/kg every three weeks. There was a decrease in LRI and AGE frequency in the first year of IVIG treatment, and a statistically significant decrease in URI at 5 years (p < 0.05).

Conclusion: CVID is a heterogeneous disease, and so diagnosis is frequently delayed. In CVID patients, pulmonary complications relate to diagnosis delays, the age at onset of symptoms, and the prevalence of lung infection before treatment. In children, PIDs are life threatening, and so early diagnosis and the early initiation of treatment will help preclude complications. As a result, it is important for all specialist physicians to be aware of these manifestations, to assist in ameliorating diagnostic delays.

EFFECT OF KINESIO TAPING® APPLICATION ON HEEL CONTACT IN A CASE WITH IDIOPATHIC TOE WALKING

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Introduction: Idiopathic toe walking (ITW) is a stubborn gait pathology with no known etiology that is characterized as premature heel-rise or no-heel contact. The aim of this case report is to examine the acute effects of Kinesio-taping® (KT) in a child with ITW.

Case Report: A 3-year-old girl with persistent ITW, who was referred to the Department of Pediatric Physiotherapy Rehabilitation was examined with Toe Walking Tool Questionnaire Form and Video-Based Observational Gait Analysis. KT applied on m. tibialis bilaterally. 5 gait trials were video-recorded from frontal and sagittal planes in 15 minutes after KT application. Pausing and frame-by-frame monitoring functions of video player were used while evaluating the gait. The 10 steps of gait trials which corresponding to the exact middle of the walking way were taken for right and left sides. The case was evaluated for only foot section, which consists of EVGS. Totally score of 10 steps for dominant and nondominant sides was noted before and after KT. According to the scores of EVGS, there was no heel contact before KT. After KT application on m. tibialis anterior the child showed 4 times heel contact and 2 times flatfoot and 4 times toe contact in stance phase of 10 steps. The difference between the scores of before and after KT application is shown in Table 1. The score decreases as the steps improves.

Initial Contact in Stance | Heel Lift in Stance | Maximum Ankle Dorsiflexion in Stance | Hind-foot Varus/Valgus in Stance | Foot Rotation in Stance | Clearance in Swing | Maximum Ankle Dorsiflexion in Swing
---|---|---|---|---|---|---
Before KT | 20 | 20 | 20 | 0 | 0 | 10 | 15
After KT | 10 | 10 | 14 | 0 | 0 | 10 | 10

Table 1: The total score of foot section of EVGS for bilateral 5 steps

Conclusion: This case report conducted to evaluate the acute effects of KT on m. tibialis anterior of the child with ITW. Our results showed that the child had an improvement in the score of foot section of EVGS after the application of KT. In the light of this finding, larger sample studies, which display the effects of KT on gait in children with ITW, are needed.
PO1: POSTER PRESENTATIONS: SESSION 1

ID: 279 / PO1: 16
Poster Presentation  Topics: General Pediatrics, Infant Development

SUPPORT EARLY CHILDHOOD DEVELOPMENT (ECD) BY STRENGTHENING THE CAPACITY OF PAEDIATRIC HEALTH CARE IN SERBIA

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Introduction: In the last 6 years, the cooperation of UNICEF and the Ministry of Health of Serbia (MoH), has been aimed at supporting children in early development, and their families, through several projects, which have been carried out by the Pediatric Association of Serbia (PAS) and partners.

Purpose: To present the main results of the 3-year long Project (2013-2016), conducted by Paediatric Association of Serbia implemented with support of MoH and UNICEF, aimed at building the health care system for supporting ECD. The primary outcome and objective of this Project is the creation of national and local health systems to support ECD. At national level: Developing of basis for sustainable education and training of health care professionals in the field of ECD. At local level: support of the quality of the PHC system in 9 municipalities using: training modules, instruments for measuring and assessment of ECD and organizational changes in PHC for improving availability and quality of services.

Materials and Methods: Analyzing the data obtained by both project and primary health care center (PHC) coordinator reports: tests of knowledge gained, satisfaction of courses participants, and activities in the implementation of knowledge gained at the educational courses.

Results: Training of 90 pediatricians in 9 municipalities was conducted through 11 basic courses. The level of knowledge increased by an average of 33%, 98% participants were satisfied. Instruments for ECD assessment (ASO-3, IGMD/C) were applied in more than 4000 children. 4061 ASO filled in by parents and returned to pediatricians. Trained paediatricians reached a total of 5,500 children (25 Roma) having some risks factors. Paediatricians’ filled check lists for monitoring the development of 1429 children. Analysis of 1429 children (30% Roma) showed: 59% had difficulties in any domain, 45% to 64% improved developmental outcomes after pediatric interventions; in Roma families, age specific play stimulation rose from 29% to 43%. About 50% of Roma parents improved their practices reducing identified risks for ECD, using adequate development play and positive interaction with children. At the national level, an elective course on ECD for medical students in 2 medical faculties (Belgrade, Novi Sad); ongoing process for improving education on ECD for postgraduate students in Pediatrics.

Conclusion: The improvement of ECD outcomes for children, increase of families actively applying early stimulation were achieved by increasing the quality of pediatric support to them and their families. These results confirm that the investment in knowledge of pediatricians on ECD, including in-service training, introducing of standardized instruments for monitoring child development, and on-site support represent the effective way for increasing the quality of health care system to support ECD at the primary health care level.

ID: 145 / PO1: 17
Poster Presentation  Topics: Preterm Infant, NICU

THE USING OF ABDOMINAL REGIONAL SATURATION IN PRETERM NEONATES WHEN ORGANIZING ENTERIC FEEDING

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Introduction: High frequency of the food intolerance and development of necrotizing enterocolitis in deep and extremely preterm neonates despite of the implementation of standardized order of enteric feeding for preterm neonates motivate a search for additional resources of monitoring the state of intestine and the evaluation of tolerance of feeding.

Purpose: The aim of the research was the obtain of data of regional abdominal oxygenation with the near infrared spectroscopy in clinical stable preterm neonates under 32 weeks of gestation in the dynamics of the formation of enteral nutrition.

Materials and Methods: 107 preterm neonates under 32 weeks of gestation with the monitoring of regional abdominal oxymetria when increasing the capacity of feeding during all the period of transition into the total enteric feeding were observed. The monitoring was provided with the help of oxymeter INVOS 5100C with neonatal sensory devices. Children were divided into groups with the step of 2 weeks of gestational age. The human research ethics committees of the Institute approved the study, and informed parental consent was obtained for all infants. There were no conflicts of interest for the authors.

Results: The assessment of regional abdominal saturation started from the day of transition from the minimal trofic feeding and was continued when increasing the capacity of feeding. The duration of monitoring was no less than 6 hours (2-3 feeding). In the beginning of enteric feeding regional abdominal saturation was 78±3.8 %, 71±4.2 %, 67±2.6 % corresponding in children 30-32 weeks, 28-29 weeks, 26-27 weeks. The decrease of data to 55 % was the reason for reduction of enteric strain (a pause in feeding or cut-off of increasing of capacity). Individual organization of feeding under the NIRS data allowed to decrease the frequency of NEC development to one third in all groups. Besides that, a positive moment of the monitoring of abdominal oxygenation was the reduction of duration of transition into the total enteric feeding, especially in extremely preterm infants (under 28 weeks of GA).

Conclusion: The monitoring of abdominal saturation may be a useful diagnostic method of detection of hypoxia/ischemia of the intestine, which allows to provide individual program of enteric feeding in deep and extremely preterm neonates.
CURRENT PRACTICE OF VERBAL HANDOVER USING SBAR MODALITY AMONG PEDIATRIC RESIDENTS IN ACGME-I PROGRAM DOHA, QATAR
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Introduction: Patient handover is a crucial process for transfer of patients' information. The ultimate goal of handover is to ensure patients safety, thus, its standardization enables concise relay of information across team members. Many factors is contributing to efficient and safe handovers such as: organization of the whole process of handover, insure presence of protected time, standard systems and training for all staff. Different systems of communication have been developed to achieve effective and safe handover such as: organization of the whole process of handover, insure presence of protected time, standard systems and training for all staff. The commonest missing elements were patients' demographics and location (23%) followed by situation awareness (19%). Organization of the whole handover process was 38% of more than 4 that is very good and only 12% of 1, which is poor organization.

Conclusions: The majority of the residents’ handovers were inclusive of the 9 elements of SBAR. An extra important element was observed in 12% of the handovers, which is “read back by the receiver”; an element not part of the SBAR modality. The study was highlighted areas for improvement in SBAR content. Adding “read back by receiver” = (R) to the SBAR may ensure that crucial patients’ information is well understood by the receiving team. Creating a modified handover modality in form of SBARR may greatly improve endorsement safety and quality.

CONCLUSIONS TOWARDS USE OF SELF-DIRECTED LEARNING IN ACGMEI MULTI CULTURAL PEDIATRIC RESIDENCY PROGRAM: THE RESIDENTS PERSPECTIVE
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Introduction: Self-assessment, self-directed learning(SDL) is one of the cornerstone for the new aura of teaching and learning. It has been considered as one way to support transition from undergraduate to postgraduate Learning. using the skills of self-directed learning(SDL) by the residents in their training will improve their own professional development; challenges toward implanting (SDL) in the training program will create gap between residents and efficient training; thus better understanding of those challenges will ensure earlier intervention by the program faculties and directors.

Purpose: To identify barriers to use SDL among pediatrics residents. To explore potential recommendations that can overcome challenges. To explore ideas to ward effective creation of individual learning plan and lifelong learning among residents.

Methods: Cross-sectional Survey included details of demographics and barriers to Self-Directed Learning in clinical practice conducted from July-November 2016 among pediatrics residents at Hamad Medical Corporation main tertiary teaching hospital in Qatar. It includes details of demographic, perception, and attitude toward self-directed learning and challenges that might prevent effective SDL among residents. Questions offered objective answers utilizing 3-point Likert scale.

Results: Out of 50 respondents, (31) juniors and (19) Seniors. Nearly (90%) perceived lifelong learning as necessary to physician’s carrier. Major barrier identified were: Lack of balance between social life and clinical workload (20%), Insufficient understanding of how to construct an effective individual learning plan (18%), Lack of time to create plan for (ILP) and to apply it (17%), Lack of monitoring (qualified teacher/adviser) in (ILP) (16%), maintaining residency training requirements (16%), Lack of support from residency program (13%)

Conclusion: Nearly all the residents in this study placed a high value on SDL and perceive it as beneficial for promote education and academic advancement. Our study shed light on the barriers limiting use SDL in ACGMEI multi-cultural program. Residents in training identified several barriers related to their learning level, program level and external environments. allow residents to have protected time and resource for teach SDL, implement Hands-on workshop in their curriculum, use frameworks support on-going learning; regular meet with advisor to discuss ILPs and evaluate process can overcome these obstacles.
CONGENITAL HYPOTHYROIDISM AND BRAIN-LUNG-THYROID SYNDROME

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Introduction: Chorea and congenital hypothyroidism with or without pulmonary dysfunction is a rare condition and it is characterized by congenital hypothyroidism (CH), respiratory distress syndrome and benign hereditary chorea. It is caused by heterozygous mutation in the NKX2-1 gene on chromosome 14q13.

Case report: Five-year-old girl, the first daughter of non-consanguineous parents. Term pregnancy and childbirth without complications. Congenital hypothyroidism was detected in the neonatal screening of metabolic diseases and levothyroxine was started at 8 days of age. Ultrasound showed thyroid hypoplasia. Hypotonia and ataxia were noticed at 12 months and 2 years of age, respectively. Brain magnetic resonance imaging showed images suggestive of Chiari malformation type I. She maintained normal thyroid function and the genetic panel for ataxia was negative. At 4 years of age, besides ataxia, choreoathetosis was noticed, which, in association with previous diagnosis of HC and global developmental impairment, led to the molecular study of the NKX2-1 gene. It was identified a pathogenic mutation in heterozygosity in exon 3. She began treatment with tetrabenazine with improvement of coreoatetosis. Pulmonary disease was excluded and she was referred to the local team for early intervention, with favorable clinical evolution.

Discussion: We should suspect a deficiency in NKX2-1 when HC is associated with neurological and/or respiratory disease. Multidisciplinary follow-up was crucial for the diagnosis of CAHTP, allowing preconception counselling. The Chiari malformation type I found in this patient may be included in the expression of the CAHTP phenotype.

FAT EMBOLISM SYNDROME – A CLINICAL CASE

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Introduction: Fat embolism is a condition often under diagnosed, mostly associated with surgical procedures in traumatic long bone fractures. The incidence of clinically detected fat embolism syndrome (which occurs in <1%) differs from the incidence found in post mortem examination (20%). In rare cases, this condition evolves into a fat embolism syndrome, which is characterized by the triad: respiratory failure, altered state of consciousness and petechiae. The clinical symptoms usually develop within the first 12 to 72 hours postoperative and the respiratory system is usually the first to be affected. The diagnosis is clinical and the treatment is based on supportive care. In severe cases, admission to an intensive care unit may be necessary. The prognosis of the fulminant form is reserved, with acute right heart failure being the lead cause of death.

Case report: A 15-year-old male, presents to the emergency department due to trauma of the right lower limb. The x-ray confirmed a fracture of the femoral shaft. He was admitted to surgical correction, which was uneventful. On the first postoperative day he presented periods of prostration and altered state of consciousness. On physical examination he had a slow but oriented speech, cutaneous pallor, dry mucous membranes and a petechial rash in the anterior upper chest. In pulmonary auscultation he had rare crepitations on both bases. He maintained saturations of 89% with a FiO2 0,21 and a diastolic blood pressure in the percentile 5 for his age. Cerebral computed tomography (CT) showed no signs of fracture or acute blood collections. Arterial blood gas analysis revealed hypoxemia (PO2: 59 mmHg). The analytical study showed thrombocytopenia (127 000 mcg/L) with D-Dimers elevation (812 ng/mL). He presented a prolonged protrombine time (16 seconds to a normal of 10,9 seconds) and an international normalized ratio of 1,45. Considering the clinical and analytical alterations, the diagnosis hypotheses were fat embolism and pulmonary thromboembolism. CT scan of the chest with contrast was performed confirming the diagnosis of peripheral adipose embolism. The patient was then transferred to an intermediate care unit. He had a gradual clinical improvement with normalization of analytical and vital parameters as well as neurological state and was discharged after four days.

Conclusion: Fat embolism syndrome is a rare complication in paediatric patients and a high index of suspicion is essential for its early diagnosis. The main focus consists in an effective preventive management.

THE EFFECT OF MATERNAL AGE ON PREGNANCY OUTCOME IN CYPRUS

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Introduction: The effect of maternal age (<18 and >35) on pregnancy outcome and more specifically on the incidence of preterm birth (<37 weeks of gestation) and low birth weight of the newborn (<2500 grams) is well known in the international literature.

Purpose: To investigate the effect of the mother’s age on the incidence of premature (preterm) birth and low birth weight of the newborn, among Cypriot population.

Material and Method: This article describes a prospective study carried out in Cyprus from March 2015 to April 2016. The participants were women who gave birth in either a private or a state hospital. Questionnaires were administered to 348 women who gave birth prematurely (<37 weeks) (cohort group) and 349 women who carried their pregnancy to term (>37 weeks) (control group). The aim was to collect data relating to the gestational age and the newborn’s birth weight as well as the demographic, economic and social profile of the mother. The statistical analysis was performed using the statistical package IBM SPSS 21.0.

Results: Results indicate a statistically significant correlation (p<0.001) between the age of the mother on the day of delivery, premature birth and low birth weight. The other mother on the day of the delivery, regardless of demographic, social and economic status, significantly correlated with increased incidence of preterm delivery (p<0.001) and of a newborn with low birth weight (p<0.001).
URINE METABOLOMIC PROFILING IN NEONATAL BRAIN INJURY

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Introduction: Brain injury is a leading cause of perinatal mortality and long-term neurological disability in neonates. In term infants, most often this is due to perinatal asphyxia and subsequent hypoxic-ischemic encephalopathy (HIE) whereas intraventricular hemorrhage and periventricular leukomalacia are the major forms of brain damage in preterm ones. Nowadays, management is largely supportive, with the exception of therapeutic hypothermia, which nonetheless is applicable only in term infants during the first 6 hours of life. Moreover, outcome in both preterm and term infants developing brain damage is to a great extent unpredictable. Therefore, early identification and prognostication of neonates at risk for brain damage is of great clinical value. Metabolomics could contribute in this end, providing evidence on the metabolic alternations in neonatal brain injury possibly associated with clinical manifestations, survival and long-term neurological outcome.

Purpose: We aimed to define urine metabolomic profiles in encephalopathic preterm and term neonates and identify early diagnostic and prognostic biomarkers of brain injury.

Materials and Methods: Preterm neonates(<32 weeks gestational age) with encephalopathy of prematurity and term ones suffering HIE as well as preterm and term neonates without brain injury were prospectively studied during a 2-year period (2014-2016). Urine samples were collected on days 1, 3 and 9 of life for metabolomic analysis using liquid chromatography-tandem mass spectrometry. Data related to demographic-clinical characteristics, brain injury and outcomes were also recorded.

Results: 40 preterm neonates (15 neonates with encephalopathy of prematurity and 25 controls) as well as 33 term ones (13 with moderate/severe HIE, 10 with mild HIE and 10 controls) were evaluated. Metabolomic profiling documented separation between preterm neonates with encephalopathy vs.preterm controls, as well as between term infants with moderate/severe HIE and respective controls. Significant differences were observed at the sampling time points. Urine metabolomics was possible to predict unfavorable neonatal outcomes.

Conclusion: Urine metabolomics has the potential to early identify neonates at high-risk for adverse neurological outcome, which constitutes a valuable information to the bedside clinician.

CONGENITAL IDIOPATHIC PLEURAL EFFUSION RESOLVING SPONTANEOUSLY IN A NEWBORN

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Introduction: Congenital idiopathic pleural effusion is a rare condition with an incidence of about 1 in 12000 to 1 in 15000 pregnancies. It can be severe enough to cause significant respiratory distress. Here in, we report a case of isolated idiopathic pleural effusion, which resolved spontaneously without intervention.

Case Report: A full term baby girl delivered to a 26-year-old primigravida mother by normal vaginal delivery. Antenatal USG revealed complete collapse of left lung with pleural effusion and left sided renal pelvis dilatation. There was a lot of parental and obstetrician anxiety regarding the finding. The paediatrician and paediatric surgeon were well informed about the case and all the necessary equipment for resuscitation was arranged prior to antibiotics prophylactically. Blood gas analysis was normal. Chest X ray done revealed left sided haziness. USG chest done revealed left sided minimal pleural effusion. Echo done showed mild pericardial effusion with a VSD of about 2.5 mm with left to right shunt. Baby did not develop respiratory distress during nursery stay. She was started on feeds at 2 hrs. of life, which she accepted well. Chest X ray and USG chest was repeated which was normal and pericardial effusion resolved in 48 hours. As there were no dysmorphic features, karyotype was not done. As pleural effusion was minimal and not resulted in respiratory distress, and resolved spontaneously, diagnostic tap was not done. No other fluid compartment was involved, so hydrops was ruled out. USG crucian was normal. Baby's CMV IgM was negative. Cord TSH and TSH on day 3 was normal. Sepsis screen was negative and antibiotics were stopped on 3rd day, baby was shifted to mother and discharged on day 5 of life and is doing well till one month of age.

Conclusion: Congenital idiopathic pleural effusion is a rare entity in a newborn, which can be resolved spontaneously without intervention.

FEATURES OF THE SPECTRUM OF SENSITIZATION IN CHILDREN WITH ASTHMA LIVING IN A LARGE INDUSTRIAL CITY

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Introduction: The state of environment and ambient air has considerable influence on the formation and course of diseases of respiratory system, especially bronchial asthma. The most significant contribution to air pollution in the city make vehicle emissions containing nitrogen oxide, hydrocarbons, volatile organic compounds. Each of the pollutants affects the respiratory tract of the child, playing a decisive role in either running processes of allergic inflammation, hyper secretion, or maintaining, both at the cellular and humeral level. The purpose of this study was to examine the relationship between ambient air pollutants and the characteristics of the spectrum of sensitization in children with asthma of moderate severity residing in different districts of the metropolis.
Materials and Methods: The study included 114 children (mean age – 5.33±0.27 years). Depending on place of residence (environmentally safe or environmentally disadvantaged district) the children were divided into 2 groups. In each district the most significant air pollutants were detected. In all the examined children was studied the level of total and specific IgE to five groups of allergens (food, household, pollen, epidermal and fungal).

Results: It is established that the most important pollutant in the industrial city was nitrogen dioxide. The children of both groups were characterized by polyclonal sensitization, however, patients from ecologically unfavorable regions had significantly higher values of total IgE and more expressed degree of sensitization to the cause-significant allergens. Sensitization to household allergens (house dust) were determined in the first year of life with increasing severity of household sensitization with age. Pollen sensitization has also been detected in children in the first years of life, but there were, as a rule, in the form of having IgE to the pollen of trees only, while not in isolation but in combination with sensitization to other groups of allergens (epidermal, household, food). The greatest number of children with sensitization to 4 groups of allergens have been observed in patients aged 6-7 years (41%).

Conclusion: Studying the spectrum and severity of sensitization in children living in ecologically unfavorable areas of the industrial city, is important both for the diagnosis of the disease, and for development of elimination activities to reduce the antigenic load on the organism of the child suffering bronchial asthma.

ID: 188 / PO1: 26
Poster Presentation  Topics: Preterm Infant, Infant Development

BRAIN ULTRASOUND AS A PROGNOSTIC TOOL FOR NEURODEVELOPMENTAL OUTCOME IN PRETERM NEWBORNS
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Introduction: Brain ultrasound as a non-invasive, safe and not expensive tool can provide in real-time useful information about the brain tissue in newborns and infants. In preterm newborns high-frequency sound waves are used to screen for brain conditions associated with prematurity such as periventricular leukomalacia, intraventricular hemorrhage and their complication such as hydrocephalus.

Purpose: to present prognostic value of brain ultrasound findings in preterm newborns for their neurodevelopmental outcome in secondary health care facility.

Materials and methods: This single center study is prospective with observational design. Out of 978 newborns, 56 (5.7%) were born before the full 37 weeks. 39 of preterm newborns had gestational age from 31 to 36 weeks and were included in the study. Brain ultrasound initially was done at the third day of life. Next ultrasound examinations were performed according to initial findings. The findings were interpreted according to Papille classification for haemorrhagic changes and Pidcock classification for ischemic changes. The neurological examination was done at the age of 6 and 12 months.

Results: Out of 39 premature newborns, 2 had PV-IVH gradus III and one of them consequent hydrocephalus, 17 had PV-IVH gradus II, 18 had PV-IVH gradus I, and 2 premature newborns had normal brain ultrasound. 97% of newborn with normal initial brain ultrasound or with PV-IVH gradus I according to Papille had normal neurological examination at the age of 6 and 12 months.

Conclusion: The results of this moderate but locally important study have clinical relevance. Normal ultrasound confidently predicts reduced risk for neurodevelopmental disorder in preterm newborns. Brain ultrasound is very useful in secondary health care because provides information for both pediatrics and parents.

ID: 180 / PO1: 27
Poster Presentation  Topics: Gastroenterology & Metabolism, Infant Development

GLYCEROL KINASE DEFICIENCY – A METABOLIC CAUSE OF GLOBAL DEVELOPMENTAL DELAY.
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Introduction: Glycerol kinase deficiency (GKD) is a rare X-linked recessive disorder characterised by hyperglycerolaemia and glyceroluria, due to loss of function of glycerol kinase enzyme which catalyses the phosphorylation of dietary glycerol to glycerol-3-phosphate, necessary in lipids synthesis. Its phenotype is remarkably variable with clinical and biochemical presentations varying from a life-threatening childhood metabolic crisis, mental retardation and/or dysmorphic features, to asymptomatic adult pseudohyperglyceridaemia.

Case Report: We present an eighteen months-old boy, referred to neurodevelopmental outpatient department by developmental delay. He was the first son of a 38 years old mother and a young father, non-consanguineous. No other relevant family history. Gestation was complicated by gestational diabetes, and the newborn had hypoglycaemic episodes in the first two days of life, corrected with feeding alone. His psychomotor developmental stages were remarkable for delayed cephalic control (5 months), sitting alone (9 months), first words (20 months) and autonomous, yet instable gait (24 months). At 33 months autistic features were noted (monotonous babbling, sensorial peculiarities with aversion to new food textures, poor ocular contact and reciprocal interaction). Physical examination revealed significant hypotonia and hiperlaxity for age and no dysmorphic features. Growth assessment was normal, as well as ophthalmologic and hearing evaluation. He was referred to early childhood intervention services and started occupational therapy with sensorial integration, speech therapy for oromotor development. Complementary exams revealed normal comparative genomic hybridization microarray analysis and brain magnetic resonance imaging with spectroscopy. Blood chemistry showed hypertriglyceridaemia (317 mg/dL) with normal creatine kinase, cholesterol, serum electrolytes, liver and thyroid function. Urine organic acid analysis revealed a high urine glycerol level and GKD was confirmed by genetic identification of GK gene mutation. He started a carbohydrate-reinforced diet and maintained autism-directed intervention. Slow progression improvement was noted. So far, no metabolic crises or clinical hypoglycaemic episodes were registered.

Conclusion: Despite normal comprehensive metabolic neonatal screening, inborn errors of metabolism should be considered in the differential diagnosis of global developmental delay in the presence of key biochemical markers, such as lipid or muscular enzyme abnormalities. The diagnosis of GKD demands a multidisciplinary and dietetic approach to prevent metabolic decompensation during illness or fasting, promote development and provide genetic counselling to families. The pathogenesis of psychomotor retardation in GKD is not yet clear, but subclinical episodes of hypoglycaemia are a proposed mechanism.
PO1: POSTER PRESENTATIONS: SESSION 1

ID: 131 / PO1: 28
Poster Presentation  Topics: Emergency Pediatrics

CLINICAL SPECTRUM OF INTRA-ABDOMINAL ABSCESES IN CHILDREN ADMITTED TO THE PEDIATRIC EMERGENCY DEPARTMENT
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Introduction: Intra-abdominal abscesses generally form following the entry of enteric microorganisms into the peritoneal cavity through a defect in the intestine wall or other viscus as a result of infarction, obstruction, or direct trauma. As we know, clinical presentations of intra-abdominal abscesses may include fever, chilliness, nausea and vomiting, flank pain, abdominal pain, ileus, signs of peritonitis, raised erythrocyte sedimentation rates, leukocytosis, and less often positive blood cultures, it is not easy for clinicians to make the definite diagnosis immediately. Early diagnosis is imperative to minimize the potential for prolong admission and life-threatening complications.

Purpose: In this study, we aim to analyze the clinical spectrum of intra-abdominal abscesses in patients who presented to the pediatric ED, and attempt to find some initial clinical characteristics that could help primary emergency physicians to diagnose intra-abdominal abscesses earlier.

Materials and Methods: This study collected retrospectively pediatric patients aged 18 years or younger who presented to the ED with a discharge diagnosis of intra-abdominal abscesses based on their medical histories. We reviewed the medical charts of all eligible patients from January 2004 to December 2011. The following information was obtained from the medical records of each patient: age, gender, clinical symptoms and signs (such as fever, abdominal pain, diarrhea, anorexia or vomiting, signs of peritonitis and flank pain), laboratory tests [white blood cell (WBC) counts, hemoglobin (Hb), platelet counts, blood urea nitrogen (BUN), creatinine (Cr), C - reactive protein (CRP) levels], microbiology, imaging findings, treatment modalities, complications, and long-term outcomes.

Results: During the 8-year study period, a total of 66 patients (30 males and 36 females; mean age, 9.27±4.16 years; range, 6 months to 18 years old) who presented to the ED with intra-abdominal abscesses were enrolled in our series. In clinical presentations, the most two common symptoms at presentation were fever and abdominal pain (90.9% and 78.8%, respectively). Moreover, abdominal pain was a major complaint in the adolescent group than other age groups (P < 0.001) (Table 1). The mean serum WBC counts of all patients were 17,980.45 ± 9,500.53/μL (range 1,600 to 55,500/μL) (Table 2). Of all the patients with intra-abdominal abscesses, 54 (81.8%) of them presented with leukocytosis (WBC counts >10,000/μL) and 63 (95.5%) of them presented with elevated CRP levels (normal range <8 mg/L). Of all the 66 children, 25 (37.9%) patients were treated with broad-spectrum intravenous antibiotics alone; 11 (16.7%) cases had a combination of broad-spectrum intravenous antibiotics therapy and percutaneous abscess drainage by US-guided or CT-guided needle aspiration (Table 3).

Table 1: Demographics and clinical presentations of the patients with intra-abdominal abscesses

<table>
<thead>
<tr>
<th>Location of abscesses</th>
<th>Total (n=66)</th>
<th>0-3 (n=6)</th>
<th>4-6 (n=11)</th>
<th>7-12 (n=36)</th>
<th>13-18 (n=13)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender Female</td>
<td>36</td>
<td>54.5</td>
<td>2</td>
<td>33.3</td>
<td>4</td>
<td>36.4</td>
</tr>
<tr>
<td>Male</td>
<td>30</td>
<td>45.5</td>
<td>4</td>
<td>66.7</td>
<td>7</td>
<td>63.6</td>
</tr>
<tr>
<td>Fever Yes</td>
<td>60</td>
<td>90.9</td>
<td>6</td>
<td>100.0</td>
<td>10</td>
<td>90.9</td>
</tr>
<tr>
<td>Abdominal pain Yes</td>
<td>52</td>
<td>78.8</td>
<td>0</td>
<td>0.0</td>
<td>6</td>
<td>54.5</td>
</tr>
<tr>
<td>Diarrhea Yes</td>
<td>21</td>
<td>31.8</td>
<td>1</td>
<td>16.7</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Anorexia or vomiting Yes</td>
<td>39</td>
<td>59.1</td>
<td>2</td>
<td>33.3</td>
<td>9</td>
<td>81.8</td>
</tr>
<tr>
<td>Flank pain Yes</td>
<td>15</td>
<td>22.7</td>
<td>0</td>
<td>0.0</td>
<td>6</td>
<td>54.5</td>
</tr>
<tr>
<td>Signs of peritonitis Yes</td>
<td>45</td>
<td>68.2</td>
<td>1</td>
<td>16.7</td>
<td>4</td>
<td>36.4</td>
</tr>
</tbody>
</table>

Table 2: Comparison of laboratory tests of patients with intra-abdominal abscesses based on location

<table>
<thead>
<tr>
<th>Laboratory tests</th>
<th>No</th>
<th>Yes</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>WBC (× 10⁹/L)</td>
<td>45</td>
<td>16553.56</td>
<td>8710.51</td>
</tr>
<tr>
<td>Hb (mg/dL)</td>
<td>44</td>
<td>11.98</td>
<td>2.81</td>
</tr>
<tr>
<td>Platelet count (× 10⁹/L)</td>
<td>44</td>
<td>363.86</td>
<td>174.17</td>
</tr>
<tr>
<td>CRP (mg/L)</td>
<td>45</td>
<td>16.93</td>
<td>11.81</td>
</tr>
<tr>
<td>BUN (mg/dL)</td>
<td>19</td>
<td>8.66</td>
<td>4.54</td>
</tr>
</tbody>
</table>

*Statistically significant by the χ² test or Fisher’s exact test when appropriated.
Age, years; ICU = intensive care unit.

Table 3: Comparison of laboratory tests of patients with intra-abdominal abscesses based on location

<table>
<thead>
<tr>
<th>Laboratory tests</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>WBC (× 10⁹/L)</td>
<td>45</td>
<td>16553.56</td>
<td>8710.51</td>
<td>21</td>
<td>21038.10</td>
<td>10584.29</td>
<td>0.057</td>
</tr>
<tr>
<td>Hb (mg/dL)</td>
<td>44</td>
<td>11.98</td>
<td>2.81</td>
<td>21</td>
<td>11.21</td>
<td>1.45</td>
<td>0.007^*</td>
</tr>
<tr>
<td>Platelet count (× 10⁹/L)</td>
<td>44</td>
<td>363.86</td>
<td>174.17</td>
<td>21</td>
<td>356.00</td>
<td>183.77</td>
<td>0.614</td>
</tr>
<tr>
<td>CRP (mg/L)</td>
<td>45</td>
<td>16.93</td>
<td>11.81</td>
<td>20</td>
<td>16.27</td>
<td>10.49</td>
<td>1.000</td>
</tr>
<tr>
<td>BUN (mg/dL)</td>
<td>19</td>
<td>8.66</td>
<td>4.54</td>
<td>11</td>
<td>9.75</td>
<td>6.91</td>
<td>0.883</td>
</tr>
</tbody>
</table>

*Statistically significant by the χ² test or Fisher’s exact test when appropriated.
Abstracts

**Statistically significant by Mann-Whitney U Test**

Table 3: Clinical management of patients with intra-abdominal abscesses

<table>
<thead>
<tr>
<th>Location of abscesses</th>
<th>Total(n=66)</th>
<th>Antibiotics only (n=25)</th>
<th>Percutaneous aspiration (n=11)</th>
<th>Surgery (n=30)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Liver abscess</td>
<td>4</td>
<td>6.1</td>
<td>1</td>
<td>4.0</td>
<td>3</td>
</tr>
<tr>
<td>Renal abscess</td>
<td>17</td>
<td>25.8</td>
<td>13</td>
<td>52.0</td>
<td>4</td>
</tr>
<tr>
<td>Periappendical abscess</td>
<td>25</td>
<td>37.9</td>
<td>7</td>
<td>28.0</td>
<td>2</td>
</tr>
<tr>
<td>Intrahepatic abscess</td>
<td>14</td>
<td>21.2</td>
<td>2</td>
<td>8.0</td>
<td>2</td>
</tr>
<tr>
<td>Pelvic abscess</td>
<td>6</td>
<td>9.1</td>
<td>2</td>
<td>8.0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Conclusion:** Primary physicians should keep the diagnosis of intra-abdominal abscesses in mind when children present with predisposing risk factors, fever, abdominal pain, leukocytosis and elevated CRP level. Most importantly, children with intra-abdominal abscesses have good prognoses when they receive diagnostic imaging studies and appropriate treatment early, with broad-spectrum antibiotics plus percutaneous or surgical drainage. Finally, the initial choice of antimicrobials should be based on the location of abscesses and antibiotics effective against anaerobic organisms must be administrated when intra-abdominal abscesses located in non-solid organs.

ID: 157 / PO1: 29
Poster Presentation  Topics: General Pediatrics, Gastroenterology & Metabolism

**CYCLIC VOMITING SYNDROME IN INFANCY AND ADOLESCENCE: CASE REPORT**

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**Introduction:** Vomiting is a frequent cause of pediatric ER admissions and is associated with a large number of numerous conditions. Repeated vomiting episodes require a different approach and a better characterization. One of the causes of repeated vomiting is the cyclic vomiting syndrome (CVS), which can be an exhausting condition for children and their parents with impact on their quality of life.

**Case report:** The authors report the case of a previously healthy 10-year-old female patient referred for a consultation due to repeated vomiting episodes. She has been admitted 8 times before on ER with sudden appearance of incoercible vomiting, 2 of them requiring hospitalization. All the episodes were characterized by a preceding non-localized headache with phono phobia, usually in the morning. Incoercible vomiting started usually 5 to 6 hours after headache onset, with 8 to 10 vomits per episode, solving spontaneously in less than 24 hours. These episodes occurred usually once every 2 months over the last 2 years, with the patient returning to her basal health state between those periods. All the vomiting episodes were accompanied by onset of pale skin, tiredness and discomfort and the patient was not able to tolerate her saliva’s taste, spitting it frequently. None of these episodes was associated with fever or diarrhea. There was no weight loss. The patients’ mother described that “at the end of the episode it looked like nothing happened” and that the episodes always occurred in the same order and that she would be able to predict them: on the precedent hours the patient was usually uninterested on watching TV and had loss of appetite. Besides light dehydration on some episodes, there were no abnormal findings on physical examination on any of the episodes. Additional studies including blood and urine analysis didn’t show abnormalities. Considering the symptoms, cyclic vomiting syndrome diagnosis was assumed and explained to the patient and family with appropriate counselling including prompt analgesic treatment of headache, rest and darkness as soon as prodromes begin. On a 6 month follow-up period vomiting didn’t recur. There were two prodrromes episodes that the patient promptly self-managed.

**Conclusion:** Cyclic vomiting syndrome is a functional disorder consisting of stereotypical episodes of vomiting separated by weeks to months, with typical onset on infancy. Primary treatment, without using targeted therapy can be effective and the involvement of patient and family is crucial for the treatment of the disease.

ID: 113 / PO1: 30
Poster Presentation  Topics: General Pediatrics

**NEURODISABILITY WITH SEVERE RESTRICTION OF MOBILITY IS ASSOCIATED WITH REDUCED SERUM CREATININE VALUES**

Chun Lim, Marianne Phillips, Liam Watson, Michael Eisenhut
Luton & Dunstable University Hospital NHS Foundation Trust, United Kingdom; Chun.Lim3@ldh.nhs.uk

**Introduction and Purpose:** Patients with low muscle mass due to malnutrition can have reduced creatinine levels. We investigated whether reduced mobility is associated with a reduction in serum creatinine in otherwise well children with neurodisability compared to healthy controls.

**Materials and Methods:** Data for children with neurodisability were obtained from a physiotherapy and hospital databases. The data extracted included age, gender, diagnosis and categories of Gross Motor Function Classification System (GMFCS) score, weight, creatinine level, drug history and comorbidities. Age matched controls without neurodisability were obtained from phlebotomy records. Exclusion criteria were children less than 2 year of age, unwell with signs of dehydration at time of blood test, on nephrotoxic drugs or with renal disease. We divided children into the following three groups: GMFCS 1, 2 or 3 (group I), GMFCS 4 or 5 (group II) and healthy age matched controls (group III) and compared their creatinine levels.
PO1: POSTER PRESENTATIONS: SESSION 1

IMPACT OF CONNECTIVE TISSUE DISORDERS ON THE FORMATION OF GASTROINTESTINAL PATHOLOGY IN ADOLESCENTS
Inna Yakovleva
Institute of Children and Adolescents Health Care - National Academy of Medical Sciences of Ukraine, Ukraine; inna.yakovleva@awml.lu

Introduction: Connective tissue pathology is a base of formation chronic diseases in children and associated with an expressed immunodeficiency. Many connective tissue disorders (CTD) carry high risks for life-threatening heart and blood vessel conditions. Gastrointestinal tract, as it contains a lot of collagen, may also be impacted with the subsequent development of inflammatory-destructive damages.

Purpose: This study aimed to evaluate the significance of collagen level content and the state of immunological reactivity in the formation of peculiarities of gastroduodenal pathology in adolescents.

Materials and Methods: Inflammatory-destructive diseases of gastroduodenal tract were studied in 155 adolescents 11 to 18 years of age. The traits of the CTD, including the Marfan syndrome, were determined relying on the Ghent criteria. CTD were revealed in 90 adolescents. 65 peers without CTD were included in the comparison group. Collagens content in the lamina propria of gastric-duodenum mucosa was evaluated by immunohistochemistry with using monoclonal antibodies of collagen 1, 3, 4, 5 types. Biopsy samples were studied in luminescent microscope with using light filters. Immunologic homeostasis has been studied according to the monocyte-phaqogocytes, humoral and cell links of immunity. Complex evaluation of immunity and connective tissue parameters was carried out using the system correlation analysis.

Results: Gastrointestinal involvement against the background of the CTD is characterized primarily by motility disorders, including gastrooesophageal reflux disease, reflux-gastritis (77%; comparison group - 29%, P<0,001) and a reduced level of interstitial collagens. The average immunofluorescence intensity of collagen types 1 and 3 in patients with CTD was significantly lower (P<0,01). The connective tissue matrix of the mucosa is characterized by structural transformation of collagen fibrils (wrong orientation, focal sclerosis, immaturity). It is accompanied by decrease in a mucosa functional ability with development of the valve-sphincter failure. The form of mucosal lesions is a chronic non-atrophic gastritis with simultaneous inflammation in the antral and fundal parts. Duodenal ulcer was identified rarely (10,0%; comparison group - 33,8%; P=0,035), and it was accompanied by detection of Helicobacter pylori.It has been revealed that clinical manifestation of gastroduodenal pathology in adolescents with CTD are formed against the background of an increase in functional activity of monocyte-phaqogocytes link cells accompanied by a pronounced deficiency of phagocytic cells in the form of a decrease in the phagocytosis number (60,9%, comparison group - 77,5%; P<0,001) and the phagocytic index (5,3; comparison group - 7,3; P<0,001). The T-system of immunity is characterized by depressive state, which is manifested by CD4+ reduction (39,5%; P<0,05) and CD8+ reduction (8,8%, P<0,001), while the B-system of immunity works in the activation mode with hyperproduction of antibodies to collagen and elastin.

Conclusion: Thus, CTD in adolescents is characterized by low level of interstitial collagens in gastric-duodenal mucosa, and accompanied by specific disorders in immunological reactivity, that is the basis of formation of motility disorders with the subsequent development of gastritis and esophagitis against the background of reflux. The work provides grounds for employing rehabilitation measures connected with a prevention of reflux disease and correction of immune system in adolescent with CTD.

THE USE OF DENVER SHUNT IN A PATIENT WITH CONGENITAL LIMPHEDEMA, CHYLOUS ASCITES AND CHYLOTHORAX - FIRST EXPERIENCE IN THE CZECH REPUBLIC
Filip Fenc1, Jiří Náhlovský2, Michal Rygi1, Petr Bukovsky1, Veronika Stará1, Květa Bláhová1
1Department of Pediatrics, 2nd Faculty of Medicine, Charles University in Prague and University Hospital Motol, Prague, Czech Republic; 2Department of Paediatric Surgery, 2nd Faculty of Medicine, Charles University in Prague and University Hospital Motol, Prague, Czech Republic; 3Children’s Heart Centre, 2nd Faculty of Medicine, Charles University in Prague and University Hospital Motol, Prague, Czech Republic; filip.fenc@gmail.com

Introduction: The Denver shunt is a system used for drainage of ascitic fluid to the circulatory system. It contains a unidirectional pump that is placed subcutaneously over the ribs. This allows use of external manual compression to move fluid from the peritoneal cavity to the central venous system.

Case report: We present a 3-year old female patient with generalised lymphedema, chylous ascites and right-sided chylothorax on the basis of dysplasia of the lymphatic system. Polyhydramnion, fetal hydrops and ascites were present since the 30th week of pregnancy. Postnatal conservative therapy, including total/partial parenteral nutrition from 3 to 12 months of age, special diet, pharmacotherapy (diuretic therapy and albumin substitution), was unsuccessful. Long-term parenteral nutrition is limited by poor access to the central venous system (subclavian vein thrombosis on the left side). Due to massive ascites and breathing difficulties, repeated ascites punctures were needed (first at 2 months of age). For these reasons, the insertion of a peritoneal Denver shunt was indicated at 2 years of age. Ascites drainage is still functional, drainage malfunctions were only short-term and repeated compressions of the catheter led to its unblocking. At the age of 2.8 years, thrombus in the right atrium was detected and treated with low molecular heparin. The patient also has a right-sided chylothorax for which repeated punctures of the fluid are required.
Conclusion: We demonstrate our experience from the first use of the Denver shunt in the Czech Republic. Our case report confirms that Denver shunt is a safe method for treating of refractory ascites in small children and improves the quality of life of these patients.

CONGENITAL ADRENAL HYPERPLASIA DUE TO 21-HYDROXYLASE DEFICIENCY: GENOTYPE-PHENOTYPE CORRELATION

Inês Falcão¹, Catarina Mendes², Catarina Carvalho², Joana Freitas¹, Maria João Oliveira¹, Helena Cardoso¹, Teresa Borges¹
¹Centro Materno Infantil do Norte – Centro Hospitalar Universitário do Porto; ²Centro Hospitalar Tâmega e Sousa; inespernicefalcao@gmail.com

Introduction: Congenital adrenal hyperplasia is a common autosomal recessive disorder caused mainly by defects in the 21-hydroxylase, the enzyme encoded by the CYP21A2 gene. In the majority of cases the disease’s severity correlates with CYP21A2 allelic variation and there are general, but not precisely, correlation between genotype and phenotype.

Purpose: Describe the mutational spectrum of CYP21A2 and evaluate genotype-phenotype correlation in a cohort of Portuguese patients with 21-hydroxylase deficiency.

Material and Methods: Retrospective study of 28 patients with clinical and biochemical diagnosis of 21-hydroxylase deficiency. Molecular analysis of CYP21A2 was performed and genotype-phenotype correlation was established.

Results: Genotyping was performed in 28 unrelated patients: 7 with classic salt wasting (average age of diagnosis 14.9 days; minimum 1, maximum 30 days), 8 with classic simple virilizing (average age of diagnosis 3.1 years; minimum 0 days, maximum 7 years) and 13 with nonclassical form (average age of diagnosis 6.9 years; minimum 4 years, maximum 17 years). The most frequent genetic defects in the classic forms were I2 splice (22%), I172N (19%), followed by F306+nt (13%) and Q318X (13%) and in the nonclassical form, the V281L (71%). The overall concordance between genotype and phenotype was 79%. Genotype accurately predicted phenotype of patients with classic salt wasting, classic simple virilizing and nonclassical mutations in 75%, 100% and 86%, respectively.

Conclusion: In this study there was a high genotype-phenotype correlation, as described in other studies. Despite the high concordance, the CYP21A2 mutation phenotype doesn’t correlate precisely with the genotype, suggesting that other genes influence the clinical manifestations. Furthermore, molecular analysis of CYP21A2 provides useful information in prediction of disease severity, genetic and prenatal counseling.

HOW LONG IS THE IDEAL NPO DURATION FOR VOMITING PATIENTS?

Wen Chieh Yang
CH, Taiwan; v1004@hotmail.com

Introduction: During the acute phase of vomiting, even small amount of water may be intolerant by mouth. Therefore, nothing by mouth (NPO) would generally be recommended by physician. An early refeeding may not be tolerable and the patients may still vomit after early refeeding. But a late refeeding may result in dehydration and hypoglycemia. The study aimed to looking for the ideal NPO duration for the patients with acute abdominal pain and vomiting, and analyzing the possible reasons that failed to refeeding.

Methods: We retrospectively recruited 304 patients with the chief complaints of abdominal pain and vomiting and received the therapies of antiemesis agents and NPO. The general data, final diagnosis, clinical manifestations, medical managements, NPO duration, and lab data were analyzed.

Results: The major diagnoses in sequence were acute gastroenteritis (82.9%), acute gastritis and colitis. The patients aged less than 6 years was the major part (43.8%), followed by adult patients (33.6%). Except abdominal pain and vomiting, nausea (93.1%) and abdominal distension (79.6%) were the most symptoms. Among them, antiemesis agents were used in 160 patients (52.6%). The patients with NPO duration of 4 to 6 hours has lower rate of refeeding failure (3.7%). The patients vomited even during NPO had higher vomiting frequency before NPO. The patients in the acute phase of vomiting, NPO of 4 to 6 hours was recommended and the patients with higher vomiting frequency and abdominal distension should have prolonged NPO duration.

IMPROVEMENT OF BETA-TALASSEMIA DIAGNOSIS IN CHILDREN

Sorin Ioan Iurian¹,², Liana Bera¹,²,³
¹Pediatric Clinic Hospital from Sibiu, Romania, Romania; ²Department of Statistics, Faculty of Medicine, Sibiu, Romania; ³Lucian Blaga University of Sibiu, Romania.; iurian_sorsab@hotmail.com

Introduction: Beta-thalassemia represent a spectrum of genetic disorders characterized by insufficient synthesis of beta-globin chains. This anomaly cause mild to severe microcytic anaemia. The differential diagnosis between thalassemia (minor type) and anaemia due to iron deficiency (AID) is frequent difficult. Purpose. The authors analysed the differences regarding haematological indices between 2 children-groups suffering from anaemia: thalassemia patients and AID patients. The end-point aim was to improve thalassemia diagnosis and to conceive an algorithm for thalassemia diagnosis.

Material and Methods: The authors selected 87 patients (age between 1-18 years) with microcytic anaemia (mild type) during a 12 month-period. According to age, mild type anaemia correspond to following haemoglobin-ranges: 10,0-10,9 g% (age 1-5 years), 11,0-11,4 g% (age 6-11 years), 11,0-11,9 g% (age 12-14 years) and 11,0-12,9 g% respectively (age > 15 years). All patients were evaluated according to haemoglobin level, red blood cell count (RBC), red blood distribution width (RDW), mean cell volume (MCV), haemoglobin electrophoresis, Coombs test
and ferritin level. Then the patients were divided in 2 groups: first group confirmed with thalassemia (38 patients) and the second one with AID (49 patients). Inclusion criteria: increased haemoglobin A2 level based on haemoglobin electrophoresis (first group) and normal haemoglobin A2 level for the second group. Exclusion criteria: age under 1 year, beta-thalassemia major type, blood transfusion or bleeding episode during previous month or other haemolytic anemias (autoimmune, enzyme deficiencies, microspherocytosis). No patient has simultaneously AID and thalassemia. In order to compare both groups from haematological point of view, the authors have examined 8 haematological indices for all patients: Mentzer, England and Fraser, Shine and Lal, Srivastava, Green and King, Ricercara, Sirdah and Ehsani indices. Data was statistically analyzed using independent sample T test and likelihood ratio. Results. We observed significant statistical difference between groups regarding MCV and RDW. RBC (mean value) was 5.41 for thalassemia group and 4.31 for AID patients, with significant statistical difference (p value < 0.05). The authors noticed a high sensitivity, specificity and positive and negative predictive values for Mentzer, Ricercara, Sirdah und Ehsani indices concerning difference between both microcytic anemias (> 90%).

Conclusion: We remarked a strong correlation between thalassemia (minor type) and haematological parameters / haematological indices: MCV (reduced), RBC (increased), RDW (increased), Menzer index (< 13), Ricercara (< 4.4), Sirdah (< 27) and Ehsani (< 15). The authors proposed a diagnosis-algorithm for thalassemia minor.

ID: 226 / PO1: 36
Poster Presentation  Topics: Emergency Pediatrics, Neurology

“WHEN MIGRAINES ARE MORE THAN WHAT THEY SEEM…”
Benedita Sousa Amaral Bianchi de Aguiar, Alexandra Martins, Magalys Pereira, Miguel Costa
Centro Hospitalar Entre Douro e Vouga, Portugal; beneditabaguia@gmail.com

Introduction: Migraines are a common cause of recurrence to the emergency department, commonly presenting a divergent etiology. In the pediatric phase, in particular with adolescents, there are some particularities that can sometimes complicate the diagnosis of certain disorders.

Case report: A previously healthy 16 year old adolescent, was brought to the emergency room due to bilateral frontal migraines with a 3 day course as well as aqueous vomiting that began hours before his arrival. He comes from a poor social background, with soft drugs consumption, although denying he had done so in the last week. When he was first assessed he presented as conscious and collaborative. Despite a discrete asymmetry of the muscular strength in the upper limbs he had a normal neurological examination. During his stay he maintained vomiting and started to become drowsy and less responsive. His neurological deficits (sensitive and motor) on the right hand side progressed to his face and lower limbs, including autonomous walking. The only alteration present in the blood work was a thrombocytopenia of 20,000x109. He then undertook a cranial computed tomography scan (CT), which revealed a round 4.5 by 5cm lesion with compression of the third ventricle and consequent expansion of the left ventricle with peri lesional bleeding. He was then sent to a central hospital in order to be evaluated by neurosurgery, who subsequently subjected him to surgery where an atypical central neurocytoma was diagnosed.

Discussion: Migraines are a common complaint in pediatrics, with a 5.9 to 37.7% prevalence in the emergency room. Most of these situations are caused by extracranial or psychosomatic conditions. Serious intracranial conditions amount to a small, non-representative percentage. However, this clinical case should prompt attention to the importance of a thorough physical and neurological examination, as well as its integration with the medical history. Every case should be evaluated individually and it is important to remember that cranial CT is recommended when a cerebral organic disease is suspected.

ID: 211 / PO1: 37
Poster Presentation  Topics: Infectious Diseases & Vaccines, Allergy, Immunology & Pulmonology

A CASE OF ATOPIC DERMATITIS WITH INVASIVE CANDIDIASIS
Youngeun Roh, Kwanghoon Kim, Hye-Young Kim
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Introduction: Atopic dermatitis is a chronic recurrent inflammatory skin disease that characterized by pruritus, xerosis and typical eczema. In this condition, patients easily suffered from secondary infection with bacteria, virus or fungus due to vulnerable skin barrier. Here we introduce one case of severe atopic dermatitis with invasive candidiasis.

Case report: A 8-month-old girl presented with eczematous skin rash on whole body for 3 days. From age of 40 days, the girl had erythematous and pruritic eczema on face. Considering relapsing episodes of pruritic dermatitis on typical area and maternal history of atopic dermatitis, she was diagnosed with atopic dermatitis at 3 months by physician in the local clinic. At that time laboratory test showed elevated specific IgE for egg, 1.05 KUA/L. She was educated to try careful skin care with emollient and topical corticosteroid, but her parents didn’t followed directions and performed folk remedies, believing her skin could improve naturally. From one month before admission, her both legs became edematous and had difficulty in extending both knees. One day before admission she came to local clinic for vaccination. On physical examination oral thrush and severe eczema on whole body with very poor condition were noted, and she was referred to our hospital. Initial vital signs were blood pressure, 80/50 mmHg, heart rate, 148 times per minute, respiratory rate 24 times per minute, body temperature 36.4°C, oxygen saturation, 97%. Laboratory tests showed a WBC count of 8800x106/L, a segmented percentage of 70.2%, hemoglobin of 0.6 g/dL, platelet count of 80000x106/L, C-reactive protein of 12.29mg/dL, total protein 2.5 g/dL, albumin 1.0 g/dL. Serum total IgE was elevated as 5942 IU/mL with specific IgE for egg white, >100 KUA/L, soy bean, >100 KUA/L, milk, 96.6 KUA/L, wheat, 45.2 KUA/L. Intravenous antibiotics, first generation cephalosporin with clindamycin and total parenteral nutrition were given upon diagnosis of skin infection and malnutrition. Despite repetitive transfusion, her platelet count constantly dropped. Empirical antibiotics were changed to vancomycin in combination with cefotaxime, and antifungal agent, fluconazole was added upon suspicion of sepsis and disseminated intravascular coagulation rather than simple skin infection. Initial blood and urine cultures had no growth and laboratory findings become improved. So vancomycin and fluconazole were stopped. After one day, fever 38.2°C was checked and then blood culture was done again. Fluconazole was re-injected considering invasive candidiasis. Reattempted blood culture showed growth of Candida albicans after 2 days. The patients treated with antifungal agent for about four weeks and educated to general skin care for atopic dermatitis.

Conclusion: We report a atopic dermatitis patient with invasive candidiasis. Untreated atopic dermatitis can lead to severe systemic infection. Proper parental education for careful skin care is important for treatment of atopic dermatitis.
PO1: POSTER PRESENTATIONS: SESSION 1

ID: 231 / PO1: 38
Poster Presentation Topics: General Pediatrics, Adolescent Health Choices

ACADEMIC PERFORMANCE IN ADOLESCENTS – BIOLOGICAL, SOCIAL AND BEHAVIORAL DETERMINANTS.
Maria Isabel Bento Ayres Pereira Leite¹, Andrea Ribeiro², Cátia Leitão³, Ana Luisa Esteves³, Ana Luisa Leite³, Conceição Macedo³, Hugo Tavares³
¹Pediatric Department, Centro Hospitalar Vila Nova de Gaia Espinho, Portugal; ²Unidade de saúde familiar Serpa Pinto, ACES porto
Introduction: Adolescents academic performance is determined by their biological and environmental milieu and may influence future professional and personal achievements.
Purpose: To characterize the biological, social, behavioral and academic features of a primary care setting adolescent population and identify factors determining academic performance.
Materials and Methods: Retrospective longitudinal observational study conducted in 2015. Bio-psycho-social information of adolescents attending their 15th year global health consultation was assessed following a HEAADSSS psychosocial interview. School outcomes (pass/ repeat grade, any/no subject failure, transition to vocational/mainstreaming regular school system) were retrospectively assessed and associations with the clinical information were evaluated using the SPSS® v.20.
Results: Thirty-eight adolescents were identified, 55.3% boys, 26.3% with a health problem and 21.1% on regular medication. Parent divorce rate was 68.4%; 47.4% of the mothers and fathers completed 12th grade, with 86.8% of both having a job. 84.2% had at least one brother and most reported good family relations (71.1%); 71.1% didn’t share their room, and 44.7% were engaged in house chores. Ninety-two percent were on regular curriculum and 84.2% attended public schools; 34.2% had ≥1 school retention and 36.8% had changed school that year. Most reported liking school (86.8%) and studying ≥1h/day (60%), 84.2% alone, 31.6% listening to music; 52.6% attended study support groups.
All considered themselves happy and reported having friends; 57.9% had a best friend and 86.7% reported to have a confident (their mother in 39.4%). 18.4% reported having been a bullying victim. Mean night sleep during school week was 8,8h, with 76% going to bed after 22 pm every day. Regarding school performance, 10.5% had school retention that year, 76.5% of those who passed had no subject failure, and 21.1% changed to a vocational program. Studying accompanied (p=0,029) and dating (p=0,047) was associated with academic failure that year. Poor school outcomes/any subject failure were associated with being a bullying victim (p=0,003), father/mother not completing 12th grade (p=0,039/p=0,073), father smoking (p=0,048); it was also more common if regular medication, parents divorced and great screen time/day (p=0,061/p=0,085/p=0,078). Change of curricula to vocational area was associated with parental divorce (p=0,006), mother not completing 12th grade (p=0,041), studying accompanied (p=0,053) and great screen time/day (p=0,017).
Conclusion: Bad school results determinants identified were dating, studying accompanied, being a bullying victim, parents not completing the 12th grade, parental divorce and great screen time/day. All adolescents should have a structured bio-psycho-social evaluation for a timely identification and holistic intervention on the determinants affecting school performance, literacy, and adult professional success.

NEW ARGUMENTS FOR DOUBLE ACTION RELEASE ACTIVE DRUGS AMONG CHILDREN WITH CHRONIC SITES OF INFECTION IN NASOPHARYNX.
Vera Vavilová¹, Alexander Vavilov², Asya Cherkaeva², Irina Nechaeva², Alla Evstratenko²
¹Kemerovo State Medical University, Russian Federation; ²Pediatric Clinic; vavilovavp@mail.ru
Aim: To evaluate the results of the prospective comparative study on efficacy of use of Anaferon among 994 children (aged from 2 to 5 years) with chronic nasopharyngeal diseases.
Materials: The study period: December 2011 to April 2015. Presents a comparative analysis of the incidence rate of respiratory and ENT-infections. In addition, the total number of cell elements and the main cell population ratio were analyzed, lysozyme activity and secretory immunoglobulin A (sIgA) in nasal secretions were evaluated.
Results: It was shown that use of Anaferon for children during a 1-month period beginning 10 days prior to vaccination increases vaccination coverage among children. The group taking Anaferon for children showed that over a year period the incidence rate of chronic respiratory infection was 1.2 times less (p <0,022), pneumonia — 1.4 times less (p =0,354), acute bronchitis — 1.2 times less (p =0,374), acute otitis media and chronic maxillary sinusitis — 1.2 (p =0,467) and 1.5 times less (p =0,279) than in the control group. The vaccination and release active drugs also showed a positive impact on the local protective factors of the upper respiratory tract such as lysozyme, sIgA, cell elements of nasal secretions.
Conclusion: The study showed good tolerability of Anaferon for children and PCV13, safety of its use among children with chronic nasopharyngeal diseases.

SHAAF YANG SYNDROME - CASE REPORT
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Introduction: Truncating mutations in the maternally imprinted, paternally expressed gene MAGEL2, which is located in the Prader-Willi critical region 15q11-13, have recently been reported to cause Shaaf-Yang syndrome.
Case report: A boy, first born of a nonconsanguineous couple. Family history of trisomy 21 on the maternal side and clubfoot and anencephaly in the paternal family. A pre-natal diagnosis of bilateral clubfoot was performed and amniocentesis was made with normal karyotype and Array tests. Fetal echocardiogram was normal. He was born at 41 weeks of gestation, after an emergent C-section delivery. APGAR at 1/5/10 was
6/8/10, being resuscitated with bag-hand-mask and oxygen. Weight and length was inferior to percentile 3 and cephalic perimeter was in the 97 percentile. He was hospitalized up to 2 months for food difficulties with frequent situations of regurgitation, being necessary nasogastric tube feeding. He had hypotonia and delayed global development so started early intervention at 5 months. Were been observed temperature instability with hyperthermia and excessive sweating. Body dysmorphic disorders were evident over time: dolichocephalic with bitemporal constriction and salience of metopic suture, micrognathia, distal arthrogryposis in both hands especially on the fourth and fifth fingers, right single transverse palmar groove, syndactyly in both feet, srypotorchidism in the right side of the body. During the etiological investigation, he performed brain MRi that showed a thin corpus callosum, the aCGH was normal and genetic studies related to family dysautonomy and a panel of arthrogryposis were normal. At the same time a Whole Exome Sequencing (WES), revealed a truncated mutation of the MAGEL2 gene, compatible with the Schaaf-Yang syndrome, a mutation bearded by the father. Currently, the child has 3 years and 7 months of age, an overall delay in his development, including delay in the motor skills, in language development, with some features connected to autism.

Conclusion: Schaaf-Yang syndrome is a Prader-Willi-like disease that manifests as developmental delay/intellectual disability, hypotonia, feeding difficulties, contraction of the small fingers joints and autism spectrum disorder. Currently, there are 28 cases of Schaaf-Yang syndrome described in literature. The clinical complexity of this syndrome demands the monitoring and an early intervention from a multidisciplinary team, with a fundamental genetic counselling to the family.

ID: 289 / PO1: 41  
Poster Presentation  
Topics: Adolescent Health Choices, Adolescent Wellbeing

**INTERPRETATIONS OF SCHOOLCHILDREN ON THE HEALTH BEHAVIOUR IN SCHOOL-AGED CHILDREN (HBC) FINDINGS REGARDING NUTRITIONAL BEHAVIOUR: QUALITATIVE ANALYSIS.**

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Introduction: Eating habits rank among the most important health determinants. Development of healthy eating habits during childhood and adolescence may prevent several chronic diseases. One of the most crucial aspects of unhealthy eating behaviour includes breakfast skipping, which is associated with overweight and obesity in adulthood. Among other important aspects belong inadequate consumption of fruits and vegetables, lack of family mealtimes, increased consumption of soft and energy drinks and concerns about body image. Unhealthy eating habits can be also associated with knowledge deficit in this area.

Purpose: Understanding the opinions, attitudes and knowledge of schoolchildren regarding eating habits is essential to develop effective preventive measures in this target group.

Materials and Methods: Data were collected in selected elementary schools from April to November 2015. Pupils of 5th to 9th grade (11, 13 and 15 years old) attended sessions in classrooms where they discussed their opinions and attitudes regarding dietary habits. After debate, children wrote their opinions into working sheets. Data was processed by a qualitative content analysis.

Results: Schoolchildren expressed adequate knowledge on healthy eating habits. However, the attraction of sweets is much stronger than fruits and vegetables. 11-year-olds complained about absence of family mealtimes. Children reported taste and social motives as main reasons for drinking soft and energy drinks. Girls were more concerned about their body image.

Conclusion: Children possess general principles of healthy eating habits but they do not implement them in their life. Preventive measures should be focused both on children and their parents as role models in development of eating habits.

ID: 158 / PO1: 42  
Poster Presentation  
Topics: General Pediatrics Keywords: Umbilical granuloma, Common salt, Infants

**THERAPEUTIC EFFECT OF COMMON SALT ON UMBILICAL GRANULOMA IN INFANTS**

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Introduction: Umbilical granuloma is a common umbilical abnormality in neonates and young infants. It is usually noticed by the parents because of the persistent drainage or moisture involving the umbilicus after the cord has dried and separated. If umbilical granuloma remains untreated, it could ooze and present with persisting irritation for several months. Many treatment modalities are available for umbilical granuloma such as chemical cauterization with silver nitrate or copper sulphate, electrocauterization, cryoautoerization, granuloma ligation, and surgical excision.

Purpose: To evaluate the therapeutic effect of common salt (table or cooking salt) on umbilical granuloma in infants.

Materials and Methods: This prospective study was conducted on 50 infants, their ages 3–16 weeks [Table 1], both boys and girls, with clinically evident umbilical granuloma. Parents of these 50 infants were given instruction to treat their infants at home. The treatment consisted of application of common salt on the lesion twice a day, washing 30 min later, and repeating the procedure for 5 days. All infants were re-evaluated after 1 week and 3 weeks to see the effect of common salt on umbilical granuloma. The effects were graded as (a) excellent response (complete regression, no discharge, and healed with complete epithelialization) and (b) no response (no regression of umbilical granuloma, and persistent umbilical discharge).

<table>
<thead>
<tr>
<th>Age group (weeks)</th>
<th>Number of infants</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 – 6</td>
<td>36</td>
<td>72</td>
</tr>
<tr>
<td>9 – 12</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>13 – 16</td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of infants</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>50</td>
<td>100</td>
</tr>
<tr>
<td>No effects</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 1: Age group distribution (n = 50)

Results: All 50 infants with umbilical granuloma showed complete resolution after the 5-day course of common salt treatment.

Conclusion: The use of common salt in treating umbilical granuloma is simple, cost-effective, curative, and safe. It is easily administered and can be performed by parents at home.
PO2: POSTER PRESENTATIONS: SESSION 2

POSTER PRESENTATIONS
POSTER SESSION 2

Presentations

ID: 217 / PO2: 1
Poster Presentation  Topics: Sports Medicine, Obesity & Physical Activity

COMPARISON OF FLEXIBILITY OF CHILDREN TAEKWONDO ATHLETES IN DIFFERENT BELT LEVELS
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Introduction: Taekwondo is a martial art including hand and foot techniques and could perform in all age groups. Taekwondo has gained in popularity in recent years. There are some studies that Taekwondo develops physical fitness parameters such as cardiovascular endurance, muscular strength and endurance, flexibility and agility in children.

Purpose: The aim of this study was to compare the flexibility of children who perform Taekwondo at different belt levels.

Materials and Methods: A total of 100 children, 50 girls and 50 boys, between the ages of 10 and 12 years participated in the study. The children were divided into 4 groups of 25 children in each group. Group 1 was the highest level of belt (black and red), Group 2 was better than mid level (blue and green), Group 3 was the mid level (yellow) and Group 4 was the lowest level of belt (white). Flexibility was assessed with sit-and-reach test and groups were compared among themselves.

Results: The mean age of the children participating in the study was found to be 11.0 ± 0.8 years. The height, weight and Body Mass Index means were 146.1 ± 10 cm, 38.8 ± 8.6 kg and 17.9 ± 2.5 kg/m², respectively. There was no significant difference between the groups in terms of demographic characteristics (p> 0.05). The sit-and-reach test means were 28.6 ± 6.3 cm, 30.8 ± 6.4 cm, 24.6 ± 5.8 cm and 23.6 ± 5.9 cm for the 1st, 2nd, 3rd and 4th groups, respectively. There was a significant difference between the 3rd and 4th groups and the other groups (p < 0.05).

Conclusion: Taekwondo is a suitable martial art in the development of physical fitness in children. According to the results of the study, the flexibility of lower extremity muscles was also increased with the increase of Taekwondo specific skills and performance. Because Taekwondo is a discipline, especially dominant with foot techniques. Further studies should be examined flexibility in with different age groups, also the effect of performing Taekwondo on the general health status in children and adolescent.

ID: 283 / PO2: 2
Poster Presentation  Topics: General Pediatrics, Infectious Diseases & Vaccines

ALL DIARRHOEA AND VOMITING IN CHILDREN IS NOT GASTROENTERITIS
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Introduction: Most meningococcal disease in the UK has been due to group B (MenB) and group C (MenC). Since the introduction of vaccine against MenC in 1990 and Men B from 1st September 2015, the incidence of meningitis due to these two strains has reduced significantly. However, an alarming rise in a particularly deadly strain of group W disease is seen. Children under 14 are not immunised against this strain and present with unusual signs and symptoms.

Purpose: To raise awareness of meningitis due to W strain which is atypical and progressively fatal.

Materials and Methods: We had 4 children present with acute diarrhoea and vomiting illness with mild to moderate fever for over 24 hrs and rapidly deteriorated. Subsequently, was found to have meningitis due to Men W 135. 22 children tested positive for Neisseria meningitides between Jan 2015 to July 2017, 15 were MenB, 1 MenC, 4 Men W135, 2 not typed. All were sensitive to cephalosporin.

Results: All 4 patients were male and aged around 13.5 months, all males and fully immunised but none had received Bexsero. Men W135 isolated from blood in 2 and CSF in the other 2. All 4 presented with diarrhoea and vomiting illness with fever. 2 patients with blood culture positive deteriorated rapidly and died and the other 2 had more insidious illness and survived.

Conclusion: Though MenW has caused only a small proportion of meningococcal infections worldwide and tends to be more prevalent outside of Europe, recently there is an increase in the incidence and mortality (13% compared to 5-10%) Rather than symptoms of meningitis or septicaemia, patients present with septic arthritis or a severe respiratory tract infection. Several adults and children with MenW septicaemia present mainly with gastrointestinal symptoms but without the characteristic non-blanching rash and progress rapidly to death as in our patient cohort. Although 14-18 year olds are being immunised with ACWY vaccine, it will take over a year for herd protection to establish so babies as the vulnerable group will remain unprotected. It has been shown that the MenB vaccine Bexsero would protect against MenW strain. But none of the infants in our cohort had received the vaccine. It is important to suspect MenW in infants and toddlers presenting with atypical symptoms of acute gastroenteritis.
BULLYING AMONG ADOLESCENTS LIVING IN ORPHANAGES IN TURKEY

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Introduction: Bullying is repetitive physical, verbal, social, or electronic aggressive actions by a person or group against a person. It is stated that there is an increase in mental and physical health problems in people who are bullied or exposed. Children who are exposed to bullying are more likely to avoid school than those who do not, and psychosomatic problems are more likely to have legislative and low academic achievement. Therefore, bullying is an important public health problem in schools.

Purpose: The main objective of this research is to assess the frequency and types of victim/bully behavior among adolescents staying in orphanage houses, in 12 regions of Turkey. Different types of bullying behaviors (physical, verbal, isolation, rumor spreading, and harming property) are also examined in relation to the sex.

Materials and Methods: The sample consisted of 543 adolescents (48.4% males, 51.6% females). The ages of participants varied between 11-18 (X = 15.05, SD = 1.71). “Peer Bullying Identification Scale—Adolescent Form” developed by Pişkin and Ayaş (2007) was used to collect data. The scale consists of “Victim Scale” and “Bully Scale”. In the Victimization Scale, participants were asked to answer how often their mates victimized them while in the Bullying Scale they were asked to answer how often they did bullying behaviors. The sub-dimensions are: Physical, Verbal, Isolation, Rumor spreading, Harming property. Sexual bullying. In the analysis, descriptive statistics were calculated first. Subsequently, bully, victim, bully-victim, and the neutral rates were calculated both in general and in terms of gender. Gender analysis is calculated separately for different types of bullying dimensions. Mann Whitney U-Test was used to analyze the distribution of different types of bullying by sex. A statistical significance level of 0.05 was taken.

Results: Frequency of Adolescents Identified as “Victims” and “Bullies”

<table>
<thead>
<tr>
<th>Types of Victimization</th>
<th>Victims</th>
<th>Bullies</th>
</tr>
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<tbody>
<tr>
<td>Physical</td>
<td>73.1 (N=543)</td>
<td>74.8 (N=258)</td>
</tr>
<tr>
<td>Verbal</td>
<td>63.4</td>
<td>66.3</td>
</tr>
<tr>
<td>Harming Property</td>
<td>50.8</td>
<td>52.3</td>
</tr>
<tr>
<td>Isolation</td>
<td>44.9</td>
<td>49.2</td>
</tr>
<tr>
<td>Rumor spreading</td>
<td>44.6</td>
<td>48.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tests</th>
<th>Total</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square Test</td>
<td>55.2</td>
<td>55.0</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>42.7</td>
<td>41.9</td>
<td>54.9</td>
</tr>
<tr>
<td></td>
<td>26.2</td>
<td>25.2</td>
<td>44.0</td>
</tr>
<tr>
<td></td>
<td>21.9</td>
<td>25.2</td>
<td>27.3</td>
</tr>
<tr>
<td></td>
<td>16.8</td>
<td>18.2</td>
<td>19.3</td>
</tr>
</tbody>
</table>

(chi² (d.f. 1) =3.56, p< .036)

Conclusion: The results indicate that bullying is a substantial problem for adolescents staying in orphanage houses, in Turkey. It appears that orphanage houses don’t always effectively deal with bullying problems among adolescents.

CAT SCRATCH DISEASE: BEYOND A LYMPHADENOPATHY

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Introduction: Evidence on treatment of cat scratch disease (CSD) is missing and the clinical approach may be a challenge.

Case Report: An eleven-year-old girl, without relevant pre-existing conditions, presented to the Emergency Department (ED) with a painful tumefaction in left inguinal area of 2 weeks’ duration. No other symptoms or events were reported; the family had 2 kittens at home. She was initially treated with oral amoxycillin/clavulanic acid for 48 hours with no improvement. At physical examination, a 4 cm tender tumefaction in left inguinal area and erythema of the overlying skin were noted. An ultrasound of the area revealed a lymphadenopathy measuring 3.7 X 1.5 cm with inflammatory characteristics. CSD was suspected and serologic testing for Bartonella sp. was performed. Patient started treatment with oral azithromycin 10 mg/kg/day and ibuprofen. On the third day of treatment, she returned with worsening of the tumefaction and inflammatory signs. An ultrasound showed slight increase in lymphadenopathies’ size (4.3 X 1.7 cm). Patient was admitted to the hospital and treated with intravenous antibiotics: amoxycillin/clavulanic acid and azithromycin. During the hospitalization, the diagnosis of CSD was confirmed. A 5-day course of azithromycin was completed, with slight reduction of lymphadenopathy (3.4 X 1.5 cm), and the patient was discharged. About 10 days after the diagnosis, the patient developed a draining sinus tract and presented with a larger tumefaction with fluctuance in left inguinal area. Ultrasound evaluation confirmed an abscess (4.5 X 3.5 X 3 cm) with a fistulous tract for the skin. She was admitted for drainage and completed an 8-day course of cefazolin. No organisms grew on the abscess fluid and a sustained increase of the immunoglobulin M and G response to Bartonella sp. was registered. Patient improved with full recovery.

Conclusion: Regional lymphadenopathy is the hallmark of CSD and is generally self-limiting. Abscess formation is rare. In this clinical case, a bacterial superinfection of the lymph node could be the aetiology of the abscess. However, no bacteria were identified in the abscess fluid, which makes the Bartonella Henselae the most probable causative agent. There are only a few case reports of abscess-forming lymphadenopathy in children with CSD. These are even rarer when considering immunocompetent patients. A more virulent pathogenetic variant is a possible explanation for these cases. Like our clinical case, to the best of our knowledge in none of the reported cases it is known the cause of progression of the disease.
CEREBROSPINAL FLUID PROTEIN AND GLUCOSE LEVELS IN NEONATES WITH SEPSIS WITHOUT MENINGITIS

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Introduction: Increased cerebrospinal fluid (CSF) protein and reduced CSF glucose levels have previously been associated with adverse neurological outcome in sepsis associated with bacterial meningitis. Increased interleukin-1 levels in the CSF of neonates with sepsis without meningitis have previously been associated with white matter damage on magnetic resonance imaging.

Purpose: We investigated whether neonatal sepsis in the absence of meningitis is associated with elevated CSF protein and reduced CSF glucose levels in order to determine whether these parameters indicate a risk for neurological damage in these patients.

Materials and Methods: Retrospective case control study comparing CSF results of neonates with fever (temperature >38.0 degrees Celsius) or elevated C-reactive protein levels (>5mg/l), and absence of meningitis as evident from normal CSF white blood cell count and negative polymerase chain reaction and CSF culture result with neonates who had a CSF obtained without fever or CRP elevation.

Results: We included data of a total of 183 neonates systematically for a 2-year period. The gestational age at the time of the lumbar puncture was between 26+6 and 42+3 weeks. CSF protein levels were with 0.84g/l (SD 0.23) in neonates with fever (n=19) not significantly different from neonates without with 0.92g/l (SD 0.39) (n=164) and in neonates with suspected sepsis and elevated CRP level (n=161) not significantly different from neonates with normal CRP (0.98 (SD 0.4) (n=22). CSF-glucose levels where available were in infants with sepsis 2.68 mmol/l (SD 0.85) (n=151) and not significantly different from infants without with 2.58 (SD 0.40) (n=26).

Conclusion: CSF protein and glucose levels are not affected by a systemic inflammatory response syndrome, as seen in sepsis, if there is no meningitis. If there is a low CSF protein or elevated CSF protein this should therefore alert the clinician to the possibility of additional meningitis.

CHILDREN WITH EPILEPSY - KNOWLEDGE AND BELIEFS OF TEACHERS IN POLAND AND THE CZECH REPUBLIC TOWARDS STUDENTS WITH EPILEPSY

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Introduction: Epilepsy is one of the most common neurological diseases in children and adolescents. It occurs particularly in school-aged children. Estimates show that around 1% of population at this age suffer from it.

Purpose: The aims of this study were to assess: a) knowledge of teachers about epilepsy and their beliefs towards teaching students with epilepsy; b) preparedness of teachers to work with these students, and the difficulties with working with this group of students and expected forms of assistance to overcome possible problems.

Material and Methods: This study was a part of the project “EPISCHOOL – “Let’s overcome barriers together!” It has been realised in cooperation with the Foundation for the Development of the Education System - the Polish Agency of the Erasmus+ Programme. Data were collected in Poland (PL) and the Czech Republic (CzR) in 2016 on the sample of 1277 teachers. The study was conducted in two groups - class teachers and physical education teachers. A questionnaire consisted of two parts was used: 1) for all teachers, including questions on: preparedness to work with students with epilepsy; knowledge/skills in this field; level of knowledge about epilepsy, skills for providing assistance in the event of seizure; beliefs about teaching children with epilepsy; 2) for teachers who are currently teaching or have taught students with epilepsy in the past 10 years.

Results: The majority of teachers said that they knew little or very little about epilepsy. 44% of Polish and 29% of Czech teachers did not feel prepared to talk with their students who witnessed seizure at school. Almost all teachers said epilepsy could occur at all stages of life (92%). The majority said that the most common causes were foetal brain damage, malformations of the brain and brain tumour. The percentage of teachers who chose the wrong procedure in the case of seizure: to insert an object into the mouth (PL 35%, CzR 46%) and to hold the extremities (PL 28%, CzR 22%) was substantial. Among the class teachers teaching students with epilepsy, it was considered difficult/stressful by - 32% PL teachers and 21% CzR. The surveyed teachers indicted the following forms of support: increasing public awareness of epilepsy, better cooperation between teachers and parents, training for teachers.

Conclusion: Teachers with the knowledge and ability to work whit this group should help them studying, strengthen self-esteem and prevent stigmatization and isolation the extent possible.

CLINICAL CASE OF BEAN’S SYNDROME

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Introduction: Hemangioma is a benign tumor, refers to vascular malformations that occur during embryogenesis. There is a combination of skin cavernous hemangiomias and mucosal lesions of the gastrointestinal tract, called Bean syndrome. This syndrome was described by American hematologist W. B. Bean, (1909-1989) as a kind variant of blue nevus syndrome: congenital multiple cavernous hemangiomia of the skin and gastrointestinal tract. Bean’s syndrome is a rare and we did not meet in the available literature data on the disease outcome, efficacy of surgical treatment, mortality.
Clinical Case: We present a clinical case of a child with the Bin’s syndrome. Child A, 12 days old, was admitted to our center with a preliminary diagnosis: “congenital malformations. Kasabach-Merritt syndrome. Congenital hemangioma. Severe post-hemorrhagic anemia, thrombocytopenia”. Anamnesis: heredity is not burdened. First pregnancy, first childbirth. Mom: At the first trimester mom had respiratory viral infection. Urgent delivery. The girl was born with a weight - 3694 g. 7-8 Apgar score. Visually: pale skin. Multiple hemangiomas are defined on the upper, lower limbs, face, neck. Hemangiomas of a pink color, with a purple tint in the middle, a different diameter from 0.2-0.5-0.8-1.0 sm, turning pale when pressed. St. Locales: Lesion of the soft tissue palpated in the upper third of the thigh. The skin is bluish or purple color, painless. There are areas of the seal protruding above the surrounding tissue, turn pale when pressed. Gastrointestinal bleeding occurred in the maternity hospital, and as the result anemia. (hemoglobin-97g/l), thrombocytopenia (49 x10 9/l). Blood test: RBC- 2.9 x10 9/l, Hb-77 g/l, Ht – 22%, WBC-21 x10 9/l, PLT-81.0 x10 9/l, sedimentation ratio-2 mm/h. Biochemistry - all parameters within reference norms. Coagulation: APTT – 37 min., PT – 85%, Fibrinogen – 2.5 g/l. Impairment of platelet aggregation (reduced aggregation with adrenaline) - 12,5% ( N :50-80%). Chest X-ray, ECG, EEG – normal. MRI: Small-cystic formations of the left hip, gluteal, inguinal and left lumbar region. Vascular malformation? Fibro-esophagostroduodenoscopy: hemangiomas of the stomach and the jejunum. Colonofibroscopy - Hemangioma of the rectum and lower colon. Intestinal bleeding. During the time spent in the hospital, the child had repeated gastrointestinal bleeding in the form of hematemesis, melena and as a result the pronounced decrease in hemoglobin (60 g/l), platelets (18x109/l). For the health condition stabilization blood transfusions and transfusion of platelet concentrate have been performed. The following treatment was prescribed: prednisolone (6 mg / kg / day) every other day + beta-blocker propranolol (3 mg / kg / day). Gastrointestinal bleeding confined for a while that resulted in insignificant platelet increase. Improvement of the condition was observed for a week, but then relapses have repeated. The active surgical interventions in the neonatal period were not appropriate. In 1.5 months positive dynamics was observed. After stabilization of clinical and laboratory indicators the girl was discharged home. Currently child is an outpatient surgeon at the place of residence. According to the literature the main treatment of disseminated hemangiomatosis is combination of conservative treatment and surgical procedures, radiation therapy is available in older ages. The prognosis is unfavorable.

Clinical Case: In connection with above mentioned, it was interesting to analyze a clinical case with a similar picture of the disease in a child of the first year of life. Patient R., was charged to Scientific center of pediatrics at the age of 3 months. Mother noted the marked jaundice of the skin at the age of 1 month old, after what the child was directed to the children’s city clinical infectious diseases hospital. Instrumental-diagnostic studies confirmed the hepatobiliary syndrome. Total bilirubin exceeded the reference norms ten times as much, direct bilirubin – 30 times as much, hepatic enzymes figures exceeded the reference values 3-3.5 times as much, indicating the presence of hepatocytes’ cholestasis. PCR studies on intrauterine infection: 06.01.2017 CMV in the mother’s milk – positive, 14.03.17 CMV in the urine of the child) - positive. The child’s health condition progressively worsened due to intoxication, which caused the development of multiple organ failure, neurologic symptoms, hemorrhagic, hepatoportal syndrome, intestinal paresis symptoms and deep metabolic disorders. On March 31th the child’s health condition deteriorated because of severe hyperthermia (39,9OC), diarrhea, anemia, thrombocytopenia, anuria.

Decision: Decision of the consilium was as follows: the final diagnosis “hemolytic-uremic syndrome”. The consilium recommended the following intensive medical measures: - peritoneal dialysis, - Plasmotransfusion, - hemotransfusions (washed red blood cells), - prednisolone (2 mg / kg), - heparin (500ED/Iphysiosgil 2.27%), - antibacterial therapy (according to the results ofantibiotical sensitivity), - Immunoglobulins intravenous, - In cases of unstable hemodynamics: titration of noradrenaline, Performing of combined treatment with peritoneal dialysis has been resulted in the child’s condition improved, the patient has been transferred for further treatment to the profile department.

Clinical Case: CYTOMEGALOVIRUS INFECTION COMPPLICATED BY THE DEVELOPMENT OF THE HEMOLYTIC-UREMIC SYNDROM.

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Introduction: Hemolytic-uremic syndrome (HUS) is a chronic disease requiring lifelong observation and treatment. The target organ of microangiopathic thrombus formation is the kidneys, however, generalization of TMA is possible leading to the development of multi-organ ischemia with a multiple organ dysfunction. In pediatric practice the most likely complication of HUS, developed on the infectious process background is syndrome of disseminated coagulation, which occurs mainly in children up to 5 years. As the symptoms caused by the syndrome of disseminated coagulation are prevailing, the identification of the underlying infectious disease sometimes does not seem possible.

Clinical Case: In connection with above mentioned, it was interesting to analyze a clinical case with a similar picture of the disease in a child of the first year of life. Patient R., was charged to Scientific center of pediatrics at the age of 3 months. Mother noted the marked jaundice of the skin at the age of 1 month old, after what the child was directed to the children’s city clinical infectious diseases hospital. Instrumental-diagnostic studies confirmed the hepatobiliary syndrome. Total bilirubin exceeded the reference norms ten times as much, direct bilirubin – 30 times as much, hepatic enzymes figures exceeded the reference values 3-3.5 times as much, indicating the presence of hepatocytes’ cholestasis. PCR studies on intrauterine infection: 06.01.2017 CMV in the mother’s milk – positive, 14.03.17 CMV in the urine of the child) - positive. The child’s health condition progressively worsened due to intoxication, which caused the development of multiple organ failure, neurologic symptoms, hemorrhagic, hepatoportal syndrome, intestinal paresis symptoms and deep metabolic disorders. On March 31th the child’s health condition deteriorated because of severe hyperthermia (39,9OC), diarrhea, anemia, thrombocytopenia, anuria.

Decision: Decision of the consilium was as follows: the final diagnosis “hemolytic-uremic syndrome”. The consilium recommended the following intensive medical measures: - peritoneal dialysis, - Plasmotransfusion, - hemotransfusions (washed red blood cells), - prednisolone (2 mg / kg), - heparin (500ED/Iphysiosgil 2.27%), - antibacterial therapy (according to the results ofantibiotical sensitivity), - Immunoglobulins intravenous, - In cases of unstable hemodynamics: titration of noradrenaline, Performing of combined treatment with peritoneal dialysis has been resulted in the child’s condition improved, the patient has been transferred for further treatment to the profile department.

Computersized Follow-up system for medical recommendations in chronic diseases such as familial dysautonomia.

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Introduction: We aim to implement in time, follow-up of medical recommendations for a chronic, autosomal, recessive, genetic, complicated disease known as Familial Dysautonomia (FD). FD is characterized by extensive autonomic and sensory dysfunction. Abnormal autonomic neuronal development results in defective neuro-regulation of multiple organ systems. Most of the body’s organ systems are affected. As there is no specific treatment for this disease, the FD patients need to be treated symptomatically for each organ system, or in combination. We used the computer program of Microsoft’s “Outlook,” which, by a specific sound, reminded us to tell each FD patient to perform the various tests or medical recommendations, at the specific dates required, so they could receive the appropriate treatment in time.

Purpose: To evaluate the efficiency of this computerized program to enable the patients to perform the required tests and given medical recommendations.
Materials and Methods: Twenty-five FD medical records were randomly chosen to be evaluated and compared over one year with the computerized follow-up program; and over another year, without the use of this program. The information inserted was: date of the clinical appointment, date of next clinic appointment, the type of clinical order, the type of tests, or recommendations (e.g. blood tests, urine tests, X-ray, CT, medical specialist, physiotherapy), implementation date of the clinical recommendation and the audio-sound reminder for this date.

Results: A comparison of the test results and the clinical recommendations, of the year using the computerized follow-up program, with the year without this program, showed a 62% increase of efficiency using the computerized program.

Conclusion: This program was proved to be a simple and efficient way to follow up chronic FD patients. This model can be suitable for all complicated chronic diseases. The patient, or the family who takes care of him, is usually very busy either with the complex disease itself, with other siblings, or with work. This program enables the patient to deliver the results to the physician, so that appropriate treatment can be given in time. This also inspires in the patient, confidence in his physician, knowing that the latter cares about his medical condition.

ID: 229 / PO2: 10
Poster Presentation  Topics: Infant Development, Neurology

COREOATHETOSIS AND CONGENITAL HYPOTHYROIDISM

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Introduction: The perturbations related to NKX2-1 are rare and due to autosomal dominant transmission. In 50% of cases, there is brain, lung and thyroid involvement and in 30% there is only involvement of brain and thyroid. Despite chorea being a classical and early sign, the initial neurologic manifestations can be various, like hypotonia, dystonia, dysarthria and ataxia.

Case Study: A 27-month child was referred to Neurodevelopmental consultation, due to global delay on psychomotor development (more significant in motor fields). The child also had a congenital hypothyroidism medicated with levotiroxin. On physical exam, she had peculiar face (thin lips, low implantation of the ears), a trunk ataxia, including in seated position and an unstable broad- based gait, needing support. At 31 months of age, she did a formal psychometric evaluation with Ruth Griffiths developmental scales revealing a developmental age of 18 months and a global intelligence quotient of 60. She had multimodal stimulation, including physiotherapy, psychomotricity and speech therapy. The cerebral MRI showed type I Chiari malformation, with no other anomalies. She performed an etiologic study regarding ataxia that revealed no alterations. At 3 years and 10 months, she presented choreoathetosis (specially in superior members) with important dysmetria. At this time, before the hypothesis of coreoathetosis and congenital hypothyroidism with or without lung affection the specific genetic test is performed. A mutation in NKX-2 was detected corroborating the hypothesis. The child began tetrabenazine for the chorea and vigilance of lung symptoms. In her last formal evaluation with Ruth Griffiths developmental scales she had a global intelligence quotient of 75 (delay in language and locomotor). The suspicion of a perturbation related to NKX2-1 must be raised when there is a congenital hypothyroidism with neurologic or pulmonary manifestations, or when there is a non-progressive chorea presenting in early childhood.

Conclusion: It is essential for the diagnosis, the clinical progression of the case and the multidisciplinary approach.

ID: 248 / PO2: 11
Poster Presentation  Topics: Obesity & Physical Activity

DIFFERENT ADIPOITY INDICES AND ITS RELATION TO METABOLIC ABNORMALITIES IN 5-15 YEAR OLD CHILDREN FROM AN URBAN AREA OF SRI LANKA.

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Introduction: Obesity related metabolic abnormalities occur from a very young age and it is directly related to the fat content of the body. South Asian populations are known to have high fat content of the body for any given BMI value compared to many other ethnic groups. This has lead to the difficulty in using internationally available anthropometric cutoff to detect adverse fat content associated with increased non- communicable diseases (NCD) disease risk. This could be due to the fact that most of the disease risk is associated with visceral adiposity rather than whole body adiposity. Different anthropometric indices such as waist hip ratio (WHR), waist to height ratio (WHIR), Body Adiposity Index (BAI) are used for screening for obesity related metabolic risk. However none of them take metabolic parameters for its calculation. Visceral Adiposity Index (VAI) is a new index developed using BMI, waist circumference (WC), Triglycerid (TG) and HDL-c

Purpose: The aim of this study is to examine the relationship between different obesity-related indices and biochemical parameters and body composition in 5-15 year old school children in Colombo district of Sri Lanka.

Materials and Methods: A cross sectional descriptive study, using two-stage probability proportionate cluster-sampling technique. After a 12hour overnight fast, blood was drawn for lipid profile, fasting blood glucose and insulin. Standard OGTT was done with anhydrous glucose 1.75g/kg body weight (max 75g). Random blood sugar and insulin was done 2hours later. Height, weight, WC and fat mass (FM) was measured using BIA. Blood pressure was measured after 10 min rest. Insulin resistance assessed by HOMA-IR.

Results: Data from 920 children (boys 542) were collected. The mean±SD age of the study group was 10.2±2.7years. According to IOTF-BMI cutoff, 32(3.2%) were obese and 90(9.7%) were overweight. The mean±SD values of triglyceride(0.87±0.39mmol/L), HDL-c (1.2±0.41mmol/L), VAI(105±0.8), BAI(25.64±4.9). Percentage body FM showed significant association with VAI, BAI, WHIR, WHR, WC, BMI. WC and BMI showed significant association with all metabolic parameters (TG, LDL-C, HDL, FBS and RBS at 2 hour OGTT). VAI and WHIR showed strong association with all metabolic parameters but BAI and WHIR showed also showed good association with all but LDL-C. WHIR did not show a significant association with all the metabolic parameters.

Conclusion: Results show that WC, BMI, VAI and WHIR can be used in the assessment of obesity related metabolic abnormalities. However, further studies are needed to develop VAI and BAI cutoff values to detect presence of adverse metabolic profiles.
**PO2: POSTER PRESENTATIONS: SESSION 2**

**EFFECTS OF ANALGESIA AND SEDATION ON NON-SURGICAL REDUCTION OF INTUSSUSCEPTION IN CHILDREN: SYSTEMATIC REVIEW**

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**Introduction:** Intussusception (ITS) is one of the most common causes of bowel obstruction during infancy and early childhood. It is an emergency condition that requires immediate medical intervention. The impact of analgesia and sedation during enema reduction has been addressed in the literature but the reported results are inconsistent.

**Purpose:** The purpose of this literature review was to determine if analgesia and/or sedation, in children population aged 0 to 17 years with intussusception, impacts the likelihood of successful non-surgical reduction, pain, adverse events and patient/caregiver satisfaction compared to children who do not received analgesia and/or sedation.

**Materials and Methods:** Sources: medical electronic databases: Google scholar, Ovid, Medline, PubMed, CINAHL, EMBASE, the Cochrane Library, Science Citation Index and Evidence-Based Emergency Medicine Time period : 01.01.1980 – 30.11.2015. (Non-operative reduction of intussusception was introduced in 1980) Primary outcome: the proportion of patients with successful non-surgical reduction who receive sedation and/or analgesia (”experimental group”) compared with those who do not (“control group”) Secondary outcomes: differences between experimental and control group in: 1) the proportion of patients with adverse events, 2) pain score or rating (either by patient, parent, or observer using a validated pediatric pain score), 3) patient or parent satisfaction with care provided.

**Results:** 209 records were identified through database searching, 145 full text articles were assessed for eligibility. Inclusion criteria: all RCT’s, cohort and case control studies relevant to the subject of the effects of analgesia and or sedation on non-surgical reduction of intussusceptions. 15 studies were included in final review. Reviewed studies were highly heterogeneous in design, approach, mode of sedation and outcomes. There is no single study with level I of evidence. Despite all above-mentioned limitations, majority of studies found that analgesia improves outcome in this population of pediatric patients. 60% of eligible studies confirmed that analgesia improves success in both pneumatic and hydrostatics reductions.

No adverse reactions related with anesthesia or sedation were reported in all reviewed studies. One survey with 78 responders reported less success in ITS reduction with regular use of analgesia. None of reviews studies included assessment of pain or commented about evaluation of pain before and after reduction. There is no single study that used Pain Assessment Scales in children with ITS. The only 2 eligible for review surveys were completed by radiologists in 1991 and 1992. No surveys were conducted for parents or caregivers or patients.

**Conclusion:** Analgesia/ sedation for ITS reduction currently is not a standard of care. We are planning to start survey focused on pain assessment for children with ITS using appropriate for age pain scales. We are preparing questioner for parents/caregiver to assess satisfaction after ITS reduction with and without analgesia and/ or sedation.

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**ENTERAL BACLOFEN FOR TETANUS TREATMENT IN RESOURCE LIMITED SETTINGS**

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**Introduction:** Tetanus is a serious bacterial infection caused by Clostridium tetani. Clostridium tetani produces a toxin that is taken up into terminals of lower motor neurons and blocks the release of inhibitory neurotransmitters leading to muscle rigidity, spasms, and seizure. The treatment of severe tetanus is still challenging, usually the patient needs to be intubated to control the airway and knocked down to control the seizure. Such facilities may not be available at peripheral health centers. Therefore oral/enteral drugs which reduce spasticity and seizure would be desirable.

**Case report:** A 4-year-old boy had a history of foul smelling ear discharge since 2 weeks before the admission. Three days before admission he developed fever and trismus. One day prior to the admission he developed flat board abdomen, nuchal rigidity, opistotonus, and seizure. There was no decrease of consciousness. Patient was diagnosed as tetanus and treated with human tetanus immunoglobulin, antibiotics (metronidazole and cefotaxime), fluids, and diazepam. There was a frequent-persistent seizure even with a maximum dose of intermittent diazepam, so we planned to intubate and gave continuous infusion of midazolam. Unfortunately, there were no availability of ventilator and pediatric intensive team. Thus enteral balofen was added on day 13 of admission at a dose of 9 mg per day (0.6 mg/kg/day, in three divided doses). Subsequently, the seizures frequency and duration were reduced as well as the nuchal rigidity, flat board, and trismus were improved. The child discharged from hospital on the day 19th of admission, 2 days after the diazepam and enteral baclofen was stopped. Vaccination catch-up were given on the outpatient follow-up.

**Conclusion:** Enteral baclofen may be considered as a additional anti-spasms agent in tetanus, especially in limited resource settings. Further studies are suggested before the treatment can be recommended routinely as an alternative anti-spasms agent protocol in all cases of tetanus.

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**HYPERTENSION IN ADOLESCENCE – THE FIRST SIGN FOR THE DIAGNOSIS...**

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**Introduction:** Coarctation of aorta (CoAo) is a common pathology, representing 5-8% of congenital heart diseases. It may occur isolated or associated with other anomalies. The diagnosis may be late, until a clinic with a high level of suspicion is established - congestive heart failure
in early childhood or hypertension (HT) in preadolescents. Although the percentage of cases of primary hypertension increases in adolescence, the etiological study should always be performed, especially in adolescents who have a previous personal/family history or objective examination suggestive of secondary causes.

Case report: We report the case of a 17-year-old female adolescent with menarche at age 13 and regular cycles. She was observed in the emergency department due to headache episode and malaise during exercise, which improved spontaneously. At the examination was objectified HT, which motivated referral to Pediatrics Consultation. From the anamnesis, she described similar episodes with a year of evolution, with association of headaches and hypertensive spikes, which had already motivated normal previous study (normal ECG, analytical study and renal ultrasound). At the consultation, after confirmation of HT, an etiological study was made that revealed no alterations. By notion of disproportion between upper and lower body segments, it was performed a karyotype that revealed a mosaic of Turner Syndrome (10%). She underwent a telematic echocardiographic study - which raised the question of coarctation of the aorta (CoAO). A study by Anglo-CT confirmed hemodynamically important CoAO, which motivated referral to Cardiothoracic Surgery.

Conclusion: CoAo is a common pathology, and the diagnosis may be late due to non-specific clinical presentation. International studies indicate 5-13% prevalence of Turner Syndrome in girls with CoAo. Despite the association between Turner Syndrome and CoAo, this case alerts us for the possibility of an association between mosaics of Turner Syndrome, without other phenotypic manifestations and this pathology.

We present this case to claim attention to general symptoms and signs presented by adolescents that should be valued underlying the clinical suspicion, because sometimes it traduces important pathology in apparently previous healthy patients.

ID: 132 / PO2: 16
Poster Presentation Topics: Infectious Diseases & Vaccines, Emergency Pediatrics

INITIAL RADIOGRAPHIC FINDINGS IN CHILDREN WITH CROUP IN A PEDIATRIC EMERGENCY DEPARTMENT
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Introduction: Croup is the major cause of upper airway obstruction in children. Croup is caused by the human parainfluenza virus types 1 and 2, and typically begins in autumn. As the upper airway narrows, the child may breathe more and more rapid and even feel difficult to breathe, the child is at risk for rapid worsening and need to treat in an emergency department.

Purpose: We aimed to determine whether various features of neck radiographs can be used to objectively predict outcomes in patients with croup treated in a pediatric emergency department (PED).

Materials and Methods: We prospectively recruited 192 patients with croup admitted to the PED between 2012 and 2014. Data regarding clinical factors, fever, age, radiographic findings, and the length of hospital stay were gathered. The initial Westley score (WS), presence of enclosed steeple sign, extent of narrowing, and narrowing ratio on soft tissue neck radiographs were determined before and after treatment. The extent of frontal narrowing, extent of lateral narrowing, frontal ratio (FR), and lateral ratio (LR) were analyzed to predict clinical outcomes in patients with croup.

Results: The extent of frontal/lateral narrowing and LR were significantly correlated with outpatient status. Approximately 71% of patients with FR values below 0.23 remained in the hospital for further care, while approximately 98% of patients with FR values >0.65 were discharged to outpatient treatment. Approximately 85% of patients with LR<0.45 remained in the hospital for further care. Almost all patients with LR values above 0.6 were discharged to outpatient treatment.

ID: 246 / PO2: 15
Poster Presentation Topics: Rare Diseases

IDIOPATHIC PULMONARY HEMOSIDEROSIS IN PEDIATRICS PATIENTS: SURVIVAL RATES
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Introduction: Idiopathic pulmonary hemosiderosis (IPH) is a rare disorder of unknown etiology which can cause diffuse alveolar hemorrhage. It is classically described as a triad of hemoptysis, anemia and pulmonary infiltrates and has a variable outcome. The outcome is severe with death in 2.5-3 years.

Purpose: Our purpose is to identify survival rates for patients with IPH.

Material and Method: We conducted a retrospective study of patients diagnosed with IPH from eight tertiary pediatric clinics from Romania covering a 58 years period of time. We calculated survival rates depending on various parameters we considered relevant for the course of the disease, like sex, frequency of crisis, classical triad at diagnosis, hemoglobin level and presence of immunological alterations. We calculated survival rates from onset of the disease and from diagnosis.

Results: We identified 39 cases of IPH in the studied period. In the first year, median survival rate was 74.4% from onset of the disease and by the end of the fifth year we found only a 15.4% survival. Girls had a median survival rate better than boys (35,15 months vs. 19.9 months). Also, patients who presented classical triad at diagnosis had better survival than those without (41,5 months vs. 22,45 months). Patients with severe anemia (hemoglobin level under 4,99 g/dl) had the lowest median survival rate of 18.6 months from diagnosis. Also, mortality was double (42,86%) in those patients. Regarding frequency of crisis, we observed that patients with more than 10 crisis before diagnosis had the best survival. Survival time was almost four times higher compared to fewer than 5 crisis patients and two times higher compared to 5-10 crisis patients. On the other hand, patients with immunological alterations survived the longest time. We observed a correlation between patients with more than 10 crises and those who had immunological alterations that improved the survival time.

Conclusion: Our data suggests a better survival rate of IPH patients if they were girls, with classical triad at diagnosis, with more than 10 crisis before diagnosis or if immunological alterations were present.
Abstracts

Conclusion: Patients with mild croup (LR>0.6 and FR>0.65) can receive outpatient care following treatment with single doses of inhaled epinephrine and dexamethasone. Patients with moderate croup (LR: 0.45-0.6 and FR: 0.23-0.65) should be closely monitored after initial treatment and admitted if necessary. Patients with severe croup (LR<0.45 and FR<0.23) should be hospitalized after initial treatment.

ID: 268 / PO2: 17
Poster Presentation  Topics: General Pediatrics

IT’S A PNEUMOPERITONEUM? OH NO, IT’S CHILAIDITI’S SIGN!

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Introduction: First described in medical literature in 1910 by Greek radiologist Demetrius Chilaiditi, the Chilaiditi sign refers to the rare incidental radiologic finding of temporary or permanent hepato-diaphragmatic interposition of the bowel, usually the transverse colon. One published report estimated the worldwide incidence at 0.025-0.028% and although it is more common in older adults, it has been reported in children. In general, patients are asymptomatic and this entity requires no treatment in the absence of symptoms. When associated with symptoms, typically gastrointestinal or respiratory, it is designated as Chilaiditi’s syndrome.

Case report: A seven-year-old female, with no relevant medical history and normal development, presented acutely with a six day history of coughing and pyrexia, with the exception of being apyreal on day four. Physical examination was normal except for tympany on percussion over the right upper quadrant of the abdomen. A plain chest radiograph showed a right lower lobe consolidation with a small pleural effusion over the right upper quadrant of the abdomen. A plain chest radiograph showed a right lower lobe consolidation with a small pleural effusion.

The observed colonic haustration suggested the gas was located inside a colon segment, with no free intraperitoneal air. Blood tests showed a rise in inflammatory markers (CRP 9,14mg/dl) and the blood culture was negative. The patient was admitted for observation and started on antibiotics for pneumonia. She remained stable throughout her admission, with no associated gastrointestinal symptoms or worsening radiological changes and she was discharged home after three days.

Conclusion: The clinical relevance of Chilaiditi’s sign and syndrome relates to a wide differential diagnosis that includes more serious conditions such as pneumoperitoneum, which requires urgent surgical management. Although no intervention is required for an asymptomatic patient and initial management of Chilaiditi’s syndrome is conservative, patients should be kept under clinical and radiologic observation in order to prevent complications.

ID: 177 / PO2: 18
Poster Presentation  Topics: General Pediatrics, Adolescent Health Communication

LACK OF SPECIALIZED HEALTH CARE IN CONGENITAL HEART DISEASE DUE TO INSUFFICIENT TRANSITION?
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Introduction: Due to medical advances, >90% of children with congenital heart disease (CHD) survive into adulthood. The number of adults with congenital heart disease (ACHD) in Germany has approached >280.000, suffering from serious sequelae, residua and complications with significant effects on morbidity and mortality. The majority of ACHD (>200.000) is not tied to a specialized doctor/centre, which is related to a lack of transition.

Purpose: The aim of this study is the analysis of the ”actual care situation” of ACHD in Germany, regarding both patients and primary care physician’s point of view.

Materials and Methods: In a cross-sectional, questionnaire- based survey, medical health supply of ACHD was evaluated regarding type-, number-, age-, gender-distribution, comorbidities of CHD as well as needs, knowledge and local distribution of specific medical care.

Results: Patients-survey: 954 ACHD (36± 12.4 years, 52 % woman) were included into analysis. 57% of ACHD had relevant comorbidities. Cardiac sequelae and residual diseases such as arrhythmia (29%), heart failure (11%) and pulmonary vascular diseases (5%) are mainly treated by general practitioners (>70%). Certified specialists and centers are known in only 39% of the cases, less than 40% of ACHD had known patient-organizations. ACHD reported an inadequate guidance considering health- and life insurance (98%), exercise capacity (80%), pregnancy and genetics (47%).

Results: General Practitioners (GP)-survey: 369 GPs were included into analysis. >50% treat CHD patients in the transitional phase from childhood into the adult age. 82% of GPs treat ACHD with simple (65%), moderate (32%) and complex CHD (24%). Specialists and Centers are consulted in only 23%. GPs are not aware of certified institutions in more than 50% of the cases, although they treat ACHD with complex comorbidities such as heart failure (43%), arrhythmia (45%) and pulmonary hypertension (18%).

Conclusion: The need for specific healthcare in patients with CHD is gaining importance, especially since an increasing number of children survive into adulthood. ACHD supply in Germany is not sufficient. Medical care is mainly carried out by primary care providers due to a failing transition to ACHD specialized institutions and doctors. A better awareness for ACHD and GPs about the nationwide certified supply is relevant, to cover patients medical needs and to reduce morbidity and mortality.
PO2: POSTER PRESENTATIONS: SESSION 2

ID: 153 / PO2: 19
Poster Presentation  Topics: Neonatal Nutrition

LATE SUPPLEMENTATION OF PHOSPHORUS IS ASSOCIATED WITH SEVERE HYPOPHOSPHATEMIA IN ELBW INFANTS WITH EARLY INTRODUCTION OF AMINO ACIDS
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Introduction: In recent studies, it has been reported that early aggressive amino acids supply causes hypophosphatemia. There have been few studies whether lower phosphorus supply develops severe hypophosphatemia in extremely low birth weight infants (ELBW) with early introduction of amino acids.

Purpose: To investigate the incidence of severe hypophosphatemia during the first week after birth and analyze the associated clinical factors with severe hypophosphatemia in ELBW with early introduction of amino acids.

Materials and Methods: Eighty-two ELBW were enrolled in this study. Medical records were reviewed retrospectively. Severe hypophosphatemia was defined as a level of serum phosphate < 2mg/dL during the first week after birth.

Results: 23.2% (19/82) of ELBW had severe hypophosphatemia. In Hypophosphatemia group (N=19), the supplementation of phosphorus was started later than Control group (N=63) (73 [61; 88.5] vs. 85 [71.5; 142.0]; hours after birth, p = 0.036). Small for gestational age infants (SGA) (36.8% (7/19) vs. 7.9% (5/63), P = 0.006) and bronchopulmonary dysplasia (BPD) (100% (19/19) vs. 56.4% (39/63), P = 0.001) were more prevalent in Hypophosphatemia group.

Conclusion: Severe hypophosphatemia was common in ELBW with early introduction of amino acids. Late supplementation of phosphorus and SGA were associated with severe hypophosphatemia in this population and severe hypophosphatemia may become a predictive factor of BPD.

ID: 179 / PO2: 20
Poster Presentation  Topics: General Pediatrics, Infectious Diseases & Vaccines

LIKELY BACTERIAL ACUTE CERVICAL LYMPHADENITIS IN CHILDREN: FACTORS PREDICTIVE OF FAVORABLE OUTCOME
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Introduction: Cervical lymphadenitis is frequent in the pediatric population and usually the result of infectious agents. Management of likely bacterial acute cervical lymphadenitis (LBACL) mainly relies on expert advice and may vary widely from antibiotic therapy to surgery as no official guidelines have been published over the last decade.

Purpose: To identify clinical factors associated with favorable outcome in the management of LBACL in children in order to create a decision algorithm and its further evaluation.

Materials and Methods: This retrospective observational study was based on the review of medical records of patient from 1 month to 18 years old who have consulted for LBACL between July 1st 2010 and July 31st 2015 at a tertiary care pediatric center. LBACL were identified using 2 electronic record databases (hospitalization, emergency). Patients were included if they had acute (≤10 days) episode of unilateral cervical mass of which the final diagnosis was LBACL. Exclusion criteria were: mycobacterial adenitis, Kawasaki disease, Cat-scratch disease, bilateral cervical lymph node involvement, congenital malformation, immunodeficiency or underlying neoplasia. Favorable evolution was defined as outpatient treatment or hospital stay of 48 hours or less without surgical drainage. To identify factors at initial consultation predictive of a favorable outcome, we performed univariate logistic regression models with several potential independent covariates, including, among others, age (years), size of lymph node (mm), fever (38.5°C) and antibiotic use prior to consultation, fluctuation, absolute white blood cell count (x10^9/L), and purulent material at ultrasonography (yes/no).

Results: Our final study cohort was composed of 166 patients with a mean age of 4.5 years (3.5SD) and 62% male. Ultrasound was obtained in 139 (83.7%) patients and cervical tomodensitometry in 31 (18.7%). Surgical drainage was performed in 35 (21.1%). Overall, 68 (41.0%) patients presented a favorable evolution from which 27 (16.9%) were treated as outpatient (diagram 1). Factors associated with favorable outcome were OR (95%CI): age (1.17; 1.06-1.29; p=0.002), absolute white blood cell count (0.91; 0.87-0.96; p=0.001), no antibiotic use prior to consultation (0.26; 0.07-0.92; p=0.037) and absence of purulent material on ultrasound (0.07; 0.02-0.29; p=0.001). Size of lymph node (0.98; 0.96-1.00; p=0.057) or fluctuation (0.71; 0.21-2.39; p=0.57) did not achieved statistical significance.

Conclusion: Older patients without prior antibiotic use, those with lower absolute white blood cell count and no purulent material on ultrasound seem to better evolve than other children with likely bacterial acute cervical lymphadenitis. A decision algorithm to identify patients eligible for conservative management should include those predictive factors.
PO2: POSTER PRESENTATIONS: SESSION 2

ID: 270 / PO2: 21
Poster Presentation  Topics: General Pediatrics, Epidemiology

NEONATAL BRACHIAL PLEXUS PALSY – A REVIEW
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Introduction: Neonatal brachial plexus palsy (NBPP) is a motor and sensory disturbance of the upper limb, related to injuries of the spinal nerves that constitute the brachial plexus and it is usually a birth complication. NBPP is uncommon, with an incidence that ranges from 0.04 to 0.3 percent of live births. The only established risk factor for NBPP is shoulder dystocia. There are other risk factors, however, none of these factors have demonstrated a statistically significant predictive value for the occurrence of NBPP

Purpose: The aim of this study was to know the NBPP incidence, the characteristics of them and their evolution.

Methods: Retrospective and descriptive study through the consultation of the clinical records and/or clinical trial of the newborns with brachial plexus lesion at the Pediatric Service of the Hospital Póvoa do Varzim / Vila do Conde between 2010-2016

Results: There were 60 newborns with NBPP. 53% were female. The incidence was 1.06%. Instrumental vaginal childbirth happened in 50% of cases and a newborn with NBPP was born by cesarean. Shoulder dystocia occurred in 55% of birth. In this study 6% (4 newborns) were premature. The median birth weight was 3705g, 30% were macrosomic. 15% had a diabetic mother. The right arm was impaired in 65% of the newborns. It was detected to paralysis by asymmetrical Moro reflex in 53% of the cases, an asymmetry of the upper limb in 25% of the cases and crepitation of the clavicle in 21% of the newborns. All were sent for consultation of Physical and Rehabilitation Medicine, being 87% of the newborns were discharged with complete resolution of the paralysis. The majority of cases were treated with ceftriaxone (65%) however, in most post-septal cellulitis (59.6% p<0.01) multiple antibiotics were preferred. Surgical sinus drainage was performed in only 4 newborns, in which 3 had complications: 7 subperiosteal abscesses, 5 orbital abscesses (2 with cerebral empyema), 1 central venous thrombosis and 1 periosteal abscess. Surgical sinus drainage was performed in only 4 newborns, in which 3 had complications: 7 subperiosteal abscesses, 5 orbital abscesses (2 with cerebral empyema), 1 central venous thrombosis and 1 periosteal abscess.

Conclusion: The NBPP is a complication in some ways unpredictable before birth, leaving many children with physical and motor disabilities of many degrees. Early identification and orientation is essential to minimize the appearance of sequelae.

ID: 165 / PO2: 22
Poster Presentation  Topics: Infectious Diseases & Vaccines, Orthopaedics

NON-TYPHOID SALMONELLA INFECTION OF A CHILD COMPLICATED WITH SPONDYLODISCITIS IN TAIWAN
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Background: Although non-typhoidal Salmonella is the main cause of human salmonellosis, non-typhoid Salmonella infection complicated with spondylodiscitis is still a rare condition in immunologically normal children and it is difficult to diagnose.

Case Report: In this study, we describe the case of an immunologically normal 11-year-old girl with initial pneumonia and subsequently felt left low back pain. We diagnosed a spondylodiscitis of vertebral bodies L5-S1 (between lumbar 5 and sacral 1) due to Salmonella species group C1 infection, and totally recovered with cefotaxime therapy.

Conclusion: In our experience, we suggested that magnetic resonance imaging (MRI) is useful equipment for spondylodiscitis examination, and followed by microbiological diagnosis is also essential for decision of appropriate choice of antibiotic treatment.

ID: 255 / PO2: 23
Poster Presentation  Topics: General Pediatrics

PEDIATRIC PERI-ORBITAL CELLULITIS: A 10 YEAR REVIEW OF PATIENTS ADMITTED INTO A TERTIARY HOSPITAL IN PORTUGAL
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Introduction: Peri-orbital cellulitis is an infection of the eyelid and soft tissues surrounding the eye without affecting the ocular globe. It is an uncommon condition occurring mostly in children. It is divided into pre-septal and post-septal cellulitis depending upon the infection being anterior to the orbital septum including the surrounding soft tissues or posteriorly, involving the orbit. Although clinically similar, they are two different entities with distinct clinical implications. Despite being less common, post-septal cellulitis is more serious and can lead to severe complications. Hence the importance of early diagnosis and treatment.

Purpose: To characterize a population with peri-orbital cellulitis and compare the clinical features of pre and post-septal cellulitis.

Materials and Methods: A retrospective analysis of medical reports of patients (<18 years old) admitted to Hospital de São João in Porto-Portugal over a 10-year period with peri-orbital cellulitis. Diagnosis was confirmed by TC-scan. Comparison of both pre- and post-septal cellulitis concerning epidemiology, clinical presentation, treatment, complications and outcome.

Results: In total 183 patients were included: 126 with pre-septal and 57 with post-septal cellulitis. The mean ages for pre- and post-septal cellulitis were 3.9±3.6 and 6.5±6.8 years respectively. Post-septal cellulitis was more common in older patients (p=0.018). Sinusitis was the most frequent predisposing cause of disease in both cases (70.6%vs.84.2%). The most common clinical features were fever (44.8%) and ophthalmologic findings such as peri-orbital swelling (96.2%) and/or erythema (69.4%) and ocular pain (18%). Phlebitias was more frequent in post-septal cellulitis (p=0.033). Laboratory tests showed leukocytosis in 47.5% and increased CRP in 79.8%. No complications were described among patients with pre-septal cellulitis, whereas in post-septal cellulitis 14 (7.6%) patients had complications: 7 subperiosteal abscesses, 5 orbital abscesses (2 with cerebral empyema), 1 central venous thrombosis and 1 periosteal abscess. No laboratory test or other clinical finding showed statistically significant differences between pre- and post-septal cellulitis. The majority of cases were treated with ceftriaxone (65%) however, in most post-septal cellulitis (59.6% p<0.01) multiple antibiotics were preferred. Surgical sinus drainage was...
PO2: POSTER PRESENTATIONS: SESSION 2

Performed in 15 cases of post-septal cellulitis. Hospitalization was longer in post-septal cellulitis (10.21 ± 8.6 days; \( p = 0.002 \)). Every patient had a favorable outcome.

**Conclusion:** Post-septal cellulitis is more common in older patients. Although photophobia is more frequent in post-septal cellulitis, there are no other laboratory or clinical findings able to differentiate between pre- or post-septal cellulitis. Hospitalization was longer in post-septal cases. Both forms had favorable outcomes in most cases.

**ID:** 168 / **PO2:** 24
**Poster Presentation**  **Topics:** General Pediatrics

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PERCEPTION AND ATTITUDES TOWARD SELF-DIRECTED LEARNING AMONG PEDIATRIC RESIDENTS AND FACULTIES IN ACGMEI PEDIATRIC RESIDENCY PROGRAM-QATAR
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**Background:** Self-assessment, self-directed learning (SDL) is one of the cornerstones for new era of teaching. Considered as one of the ways to support transition from undergraduate to postgraduate learning. Self-directed learning is supporting the concept of lifelong learning and is considered one of the main new methods in medical education and teaching. Despite the importance of self-assessment to lifelong learning, studies had shown that physicians have limited ability to self-assess, therefore skills need to be developed to insure implantation and success of SDL among resident and faculty.

**Purpose:** To explore the concept of self-assessment, Self-directed Learning among pediatric residents and faculty. To explore the readiness of residents and faculty to implement SDL into the pediatric training program. To identify skills and methods that can be used to insure the success implantation of SDL in training program

**Methods:** A cross sectional survey administered among pediatric residents and faculties from July -November 2016 in Hamad General Hospital, main tertiary hospital in Qatar. It includes; details of demographics, perception, attitude and experience toward Self-directed learning concept. Questions offered objective answers utilizing 5-point Likert scale that can be used to perform statistical analysis.

**Results:** Out of 99 respondents, 50% residents and 49% faculties. 90% of both perceived lifelong learning as necessary to physicians. Good understanding of SDL and how to construct effective Individualized Learning Plan (60%) and (50%) respectively. Faculty can assess their own skills (80% vs 50% ; \( p = 0.03 \)), but less comfortable helping their resident write goals (45% vs 30%).

**Conclusion:** Faculty believe that SDL improve patient care. They comfortably identify area of strength and improvement compared to residents. Residents and faculties have different attitudes and skills related to self-assessment and SDL. Better understanding their knowledge and experience will guide residency programs on how best to teach and further develop these skills. Postgraduate residents desire more guidance on how to engage in SDL. Residency programs need to provide explicit education during early years of the residency training on process of SDL, while Faculty modeling of SDL motivate learners and provide opportunity to demonstrate the process.

**ID:** 266 / **PO2:** 25
**Poster Presentation**  **Topics:** Infectious Diseases & Vaccines

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PNEUMOCOCCAL AND ROTAVIRUS VACCINATION IN PRIMARY PAEDIATRIC CARE IN CROATIA
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**Introduction:** Invasive pneumococcal disease (IPD) and Rotavirus infections are a significant health problem among infants and toddlers in Croatia. There are opportunities for prevention in the form of vaccines, which are not yet included in the national routine vaccination program in Croatia.

**Purpose:** Aim was to evaluate the number of patients vaccinated with Pneumococcal 13-valent Conjugate vaccine Prevenar 13 and Rotavirus vaccine Rotarix in our primary paediatric practice.

**Materials and Methods:** We retrospectively collected and analysed electronic data of children aged 2 months-3 years in the period from January 2015 – June 2017, in our primary paediatric practice. Descriptive statistical analysis was used.

**Results:** From a total of 900 patients aged 2 months-3 years, in the period from January 2015 – June 2017, 87 children (9.66%) received Prevenar 13 and 13 children (1.44%) received Rotarix. All parents were advised to vaccinate their child with Prevenar 13 and Rotarix additionally at their first systematic examination at 1 month of age. The mean age of the patients who received Prevenar 13 was 14 months, age range from 2 to 30 months. Most of the patients 50 (57.47%) received 2 doses of vaccine, 12 (13.79%) received 3 doses, 20 (22.98%) received 1 dose, only 5 (5.76%) patients received 4 doses. None of the patients vaccinated during the first year of life with at least 2 doses developed IPD.

In all cases of IPD children weren't vaccinated prior the disease, but parents decided to vaccinate them after the recovery. Side effects were registered in 30 cases, mostly injection site reactions, and fever in 10 cases. Only 13 (1.44%) children received Rotarix, which is a very low rate of vaccination against Rotavirus infection. The mean age of the children who received Rotarix was 4 months, age range 2 to 6 months. All children received 2 doses of vaccine. Most of the children had an older sibling with complicated Rotavirus infection before, so parents decided to vaccinate this child. We registered side effects in 2 children, one had traces of blood in the stool for 2 days and the other had diarrhea for 3 days. None of the vaccinated children later developed Rotavirus infection.

**Conclusion:** Most cases of IPD and Rotavirus infection occur in otherwise healthy children and could be prevented by existing vaccines Prevenar 13 and Rotarix. It would be beneficial if these were included in the national routine vaccination program in Croatia.
Abstracts

PREVALENCE OF OVERWEIGHT AND OBESITY IN THE PAEDIATRICA POPULATION OF MARTORELL
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Introduction: Overweight and childhood obesity are a public health priority, especially in developed countries, because their high prevalence and health consequences. Due to this increase Spain has come to occupy one of the first positions in excess weight rates.

Hypothesis: We estimate that the prevalence in Martorell reaches similar rates to those of countries with high prevalence and that the high percentage of immigrant population of our área could be a factor of influence in their.

Objective: The objective of this study was: 1) to assess the prevalence of excess weight in children attending schools in our municipality 2) to determine the association with different variables that could influence their appearance. 3) analyze the trend throughout the study period.

Methodology: Cross-sectional and observational study. The study population consisted of a sample of 1892 schoolchildren aged between 3 and 12 years, who attended the 7 schools in the municipality. BMI was calculated by measuring weight and height, and defined overweight and obesity according to IOTF standards. The prevalence of excess weight was analyzed according to the sex, age, type of school and nationality of the mothers.

Results: The prevalence of excess weight was 31.4% (22% overweight and 9.4% obese). Overweight in girls was 5.9% (p = 0.01) higher than in boys. They were overweight: 35.1% of students over 9 years of age, 37.2% of children enrolled in public schools and almost 50% of children of Latin American mothers, as well as obesity, 12.8% the children of Maghrebi.

Conclusion: The prevalence of overweight in Martorell schoolchildren was 31.4%. According to the multivariate analysis, in our municipality, the risk factors associated with overweight and obesity were: female sex, age over 9 years old, attending public school and being the son of a Latin American mother, adding the Maghreb origin of the mother for obesity. The trend over the period remained stable.

ID: 136 / PO2: 27
Poster Presentation Topics: Infectious Diseases & Vaccines, Orthopaedics

PYOGENIC SPONDYLITIS AND PARAVERTEBRAL ABSCESS CAUSED BY SALMONELLA SAINTPAUL IN AN IMMUNOCOMPETENT 13-YEAR-OLD CHILD: A CASE REPORT
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Introduction: Salmonella spondylitis is a rare disease, and it is known as an uncommon complication of Salmonella infection in immunocompetent children. To prevent treatment failure and neurological deficits, it needs prompt diagnosis and sufficient effort to identify the causative organism, and definitive therapy should be started as soon as possible. The positive rates of blood cultures are generally low. There are some other options to identify the causative organism such as Computed Tomography (CT) guided biopsy or surgical debridement, however when to perform these invasive interventions remains controversial.

Case Report: We report a case of a 13-year-old boy with 4-month history of occasional high fever and 3-month history of lower back pain, who was diagnosed with spondylitis of the L-4-5 vertebral bodies and paravertebral abscess. Initial blood cultures were negative, therefore empirical antibiotic treatment was started intravenously. He responded well to initial conservative management, and was discharged after clinical improvement. During this course, we did not perform invasive interventions since the clinical course was favorable. However, he was re-hospitalized 2 weeks after discharge, and surgical debridement was performed which led to the detection of Salmonella saintpaul as the causative pathogen. Through thorough medical history taking, it was revealed that the possible source of infection was consumption of raw poultry eggs, or contact with poultry and its feces. Definitive antibiotic therapy was started. After a 6-week hospitalization, he was discharged and is currently under follow-up observation at our outpatient clinic with good recovery.

Conclusion: This is the very first case report of pyogenic spondylitis caused by Salmonella saintpaul. Salmonella should be considered as a causative pathogen of pyogenic spondylitis in immunocompetent children. Identifying the causative organism is essential to prevent treatment failure, and a high index of suspicion is needed for prompt diagnosis especially when blood cultures are negative. Invasive interventions such as CT-guided biopsy should be considered even if the clinical course seems to be uncomplicated. Taking a detailed social history can help to find the source of infection.

ID: 134 / PO2: 28
Poster Presentation Topics: General Pediatrics, Infectious Diseases & Vaccines

RECOGNITION OF SEPSIS IN THE PAEDIATRIC EMERGENCY DEPARTMENT
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Purpose: As part of the development of new sepsis guidelines in response to the national CQUIN and new NICE guidelines on sepsis in Paediatrics we undertook a retrospective audit comparing the new guidelines to previous cases that had attended our emergency department to see how the new guidelines would affect management.

As part of the audit we looked at the literature available around observations and predicting significant illness based on these have shown that a single set of observations does not predict severity of illness but rather the trend of the observations show more significance. With the significant sign of illness being loss of beat to beat variability of heart rate which cannot be established after a single set of observations.

Materials and Methods: We looked at all children who attended the emergency department with a booking in diagnosis of unwell/feverish child. We reviewed 153 sets of notes and compared the initial observations to the new NICE guidelines for the septic child.
PO2: POSTER PRESENTATIONS: SESSION 2

**Results:** Of the 153 notes reviewed 64 (41.8%) fell into the high-risk criteria for sepsis. Most this was due to one raised parameter such as raised respiratory rate or heart rate. Of the 64 cases 55 of them would not have been appropriate to treat as sepsis. Of the 9 cases that received IV antibiotics, only one had a concluding diagnosis of sepsis and required intensive care admission. The other 8 cases had infective diagnoses but were not septic. Of the 153 children reviewed in the ED over 125 of them were discharged home with no adverse events.

**Conclusion:** Had the new NICE guidelines been followed 64 children would have received IV antibiotics and required admission and further investigations. This would have had a significant financial and resource implication of unnecessarily treating children as septic. The average cost of a single night stay in hospital is £400 so had all these children received IV antibiotics and admission to hospital for one night the cost saved by discharging (correctly) the 55 children was £22000. Because of this audit we have created a sepsis flow chart to help with management of medically unwell children and have used elements from the sepsis 6 and NICE guidelines as well as considering opinions of senior paediatric staff. This chart is currently in use and we are auditing its use within the emergency department.

**ID:** 287 / **PO2:** 29
**Poster Presentation**  **Topics:** Adolescent Health Choices

**REDUCTION AND PREVENTION OF TOBACCO USE AMONG ADOLESCENTS - WHICH POLICY MEASURES ARE EFFECTIVE?**

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**Introduction:** Adolescence is the stage of life where certain behavioral patterns develop and solidify. During this time adolescents typically experiment with legal and illegal substances and make their first experiences with tobacco, alcohol, and other drugs. These experiences often times lay the foundation of future health- and addictive behavior in adulthood. Children and adolescents therefore are equally in the focus of health promotion efforts or health policy initiatives as well as marketing departments of tobacco and alcohol corporations.

**Purpose:** Using recent data from the Health Behavior in School-aged Children (HBSC) study we examine the relationship between health policy measures in the field of tobacco control/prevention and the actual smoking behavior of 15-year old students in 33 European countries. The main purpose of the analyses is to ascertain which policies are effective and therefore have the potential to protect children and adolescence and reduce smoking rates among them.

**Materials and Methods:** The HBSC study conducted in 2014 in 42 countries and regions across Europe and North America provides data on the smoking behavior of 15-year old students, which serve as basis for our analyses. We supplemented the HBSC-Data with information on national tobacco control policies obtained from the "Tobacco Control Scale 2013 in Europe". We then calculated the influence of each policy/measure by conducting logistic regression analysis.

**Results:** Increasing the price of cigarettes is widely regarded as most effective measure in order to reduce smoking prevalence on a population level. Our analyses clearly confirm this assumption: in countries where cigarette prices are relatively low, 15 year old students are twice as likely to smoke compared to countries where prices are high. Additionally strict legislation on smokefree work- and public places, high national spending on public information campaigns as well as compulsory large direct health warning labels on cigarette packs are associated fewer adolescents who smoke.

**Conclusion:** Some of the measures we examined seem to have an impact on the smoking behavior of adolescents. The data at hand also supports the conclusion that a comprehensive implementation of a wide range of tobacco control policies lead to a significant reduction of smoking prevalence among adolescents.

**ID:** 173 / **PO2:** 30
**Poster Presentation**  **Topics:** General Pediatrics, Emergency Pediatrics

**SIMULATION-BASED PEDIATRIC RESUSCITATION IN UNDERGRADUATE MEDICAL EDUCATION**

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**Introduction:** Simulation-based medical education (SBME) has been increasing use to be the effective teaching tool in medical education. Due to the high risk nature of pediatric resuscitation, it is unlikely that clinical competence in this area can be developed by bedside teaching alone. Therefore, it may be beneficial to use SBME teaching of pediatric resuscitation in undergraduate medical students.

**Objective:** To evaluate the use of SBME teaching of pediatric resuscitation in medical students.

**Methods:** Group of sixth year medical student from pediatric rotation attend simulation session from March 2015 to February 2016. The session has 30 minutes of skill teaching: Pediatric Basic Life Support and Pediatrics Advanced Life Support. Next 20 minutes will run case simulation and followed by 10 minutes of debriefing. The course was evaluated by self-evaluation and program evaluation questionnaires.

**Results:** A total of 132 medical students attend the simulation sessions. Almost of them were very valuable learning experience 123/132 (93%) students. There was 117/132 (89%) felt that the scenarios was realism and appropriate for the level of learner. The summarized and debriefing of the session very useful 121/132 (92%) and have more confidence to apply the knowledge in the future 115/132 (87%) students. They have add up some positive feedback; the session facilitate critical thinking and decision making, more engage and benefit than traditional learning as the lecture.

**Conclusion:** The medical students value pediatric resuscitation medical simulation highly as the learning strategy to enhancing critical thinking and decision making in the safe environment.
SINGAPORE PAEDIATRIC HEAT INJURY STUDY - A TEN-YEAR REVIEW

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Introduction: Heat disorders are common in Singapore due to its tropical climate. Studies of paediatric heat injuries are few, and there have been no Singaporean studies on this topic. Our study hopes to fill this gap in knowledge.

Purpose: We hope to study the epidemiology and patterns of heat injury in Singapore. With this data, we aim to make recommendations in clinical management and prevention of heat injuries in children.

Materials and Methods: We conducted a retrospective study of patients between 0 and 17 years of age presenting to our paediatric emergency department who were diagnosed with heat disorder. We studied the demographic and clinical data over a ten-year period between 2005 and 2015.

Results: 58 patients presented to our paediatric emergency department for heat injuries between 2005 and 2015, of which 45 cases were identified for analysis. The greatest number presented with heat exhaustion (18 males and 18 females), followed by heatstroke in males (6), females (2), and heat cramps in males (2). Most of our patients were between 12 and 14 years old. The majority of heat disorder cases were exertional with an environmental component - usually involving sports in hot weather. There were no deaths during this period. Most patients survived till discharge with no sequelae. However, 18 patients developed end organ involvement, with 3 patients requiring intensive care, and 2 developing long term neurological sequelae.

Conclusion: Heat disorders are common worldwide and especially so in Singapore given the tropical climate. Our study has shed some light on the local prevalence, contributing factors, management and outcomes of heat disorders. We have highlighted areas of improvement in both pre-hospital and emergency department management which we hope will reduce the incidence, as well as the morbidity of heat disorders.

SOCIO-DEMOGRAPHIC, CLINICAL CHARACTERISTIC AND ETIOLOGY OF DSOCIO-DEMOGRAPHIC, CLINICAL, DIARRHEA, ETIOLOGY, PREGNANT WOMENIARRHEA AMONG PREGNANT WOMEN VISITED TO ICDDR, B HOSPITAL

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Introduction: Gastrointestinal symptoms lead to morbidity in pregnancy, yet remain an unexpectedly under-researched topic. Infectious diarrhea is common in pregnancy but still poorly understood in developed as well as developing countries like Bangladesh.

Purpose: The present analysis aimed to underscore clinical, socio-demographic and etiological characteristics of pregnant women with diarrhea reported to the icddr,b hospital in Bangladesh.

Materials and Methods: During July, 2013 - Oct, 2016, a total of 1836 female aged 15-49 years patients attended in the Dhaka and Matlab Hospital of icddr,b, Bangladesh. Among them we have recruited 229 pregnant women who reported diarrhea with pregnancy as case and those were not pregnant but reported with diarrhea considered as control (1607). They were included into the hospital based Diarrheal Disease Surveillance System (DDSS) where 2% systematic surveillance patients from urban Dhaka Hospital and Health and Demographic Surveillance System (HDSS) patients from rural Matlab Hospital.

Results: A total of 229 (12%) pregnant women were visited to the Dhaka and Matlab icddr,b hospital for diarrheal illness. The analyzable sample was 229 pregnant women with diarrhea in which 86 (38%) from Dhaka hospital and 143 (62%) from Matlab hospital who admitted during this period. Mean age ±SD was 25±3.4, whilst maternal age ≤18 yrs (11% vs. 3%; p<0.001), use of non-sanitary toilet (40% vs. 33%; p<0.052), no treatment of drinking water (86% vs. 78%; p<0.006) and monthly income of the family (>100$), (92% vs. 86%; p<0.019) significantly higher among the pregnant women with diarrhea compared to counterpart. Only 10% reported diarrhea during their 1st trimester and rest 90% (29% vs. 61%) pregnant women developed diarrhea during 2nd and 3rd trimester respectively. Salmonella (14% vs. 6%, p<0.001) was detected more commonly amongst pregnant mother with diarrhea relative to their counterparts. In multivariate analysis, significant associations with diarrhea among pregnant women were observed with Salmonella [OR: 3.71 (95% CI-2.04-6.76)], rural site [OR: 1.55 (95% CI-1.07-2.25)] and age group [OR: 3.83 (95% CI- 2.12-6.93)] after controlling for other co-variates.

Conclusion: Our study results highlight the ≤18 yrs of age, rural women and remarkable infectiousness of Salmonella in pregnant women with diarrhea and emphasize the need of active surveillance and comprehensive approach for prevention and control strategies.

SUBCUTANEOUS FAT NECROSIS IN A PRETERM NEWBORN – AN ATYPICAL CASE

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Introduction: Subcutaneous fat necrosis is a rare clinical entity, which affects mostly term and post-term newborns. Although it’s a self limited pathology, with spontaneous resolution without sequelae, adequate management and follow-up of these patients is extremely important due to the risk of late complications, namely hypercalcemia.

Case Report: A male preterm newborn was delivered at 33 gestational weeks after a preterm premature membrane rupture with placental abruption. A cesarean section was performed due to acute fetal distress. Birth weight was 2425g. There was no need for resuscitation, only

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Poster Presentation  Topics: Emergency Pediatrics

ID: 191 / PO2: 32
Poster Presentation  Topics: Adolescent Health Communication

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Poster Presentation  Topics: Rare Diseases, Preterm Infant
supplementary O2, which was maintained for 48h and chest x-ray was compatible with a transient tachypnea of the newborn. Hypocalcemia was diagnosed on D3 (min 6.3mg/dL), with need for oral supplementation until D16 and presenting with normal levels afterwards. On D12 of life, inflammatory signs appeared on anterior surface of the right leg and right ankle, with pain during manipulation. Fever, hypertension and aggravation of the inflammatory signs progressed during the same day. C reactive protein and procalcitonin were elevated and antibiotics were initiated (flucloxacillin, cefotaxime and gentamicin). Hemoculture of this same day showed an Enterobacter cloacae. Inflammatory signs of the leg continued to progress, but there was no analytic aggravation. Flucloxacillin was replaced but vancomycin. An ultrasound excluded intra-articular compromise. On D16 a painful induration was noticeable on the location of the previous inflammatory signs. An x-ray showed subcutaneous calcification areas, which were confirmed by ultrasound, suggesting the diagnosis of subcutaneous fat necrosis. The newborn was discharged on D34 of life, with improvement of the inflammatory signs and no pain at manipulation. Analytic inflammatory markers were always negative from the D13 on. The newborn was reassessed with 1 month and 13 days of life, maintaining a slight induration on the leg, but with no inflammatory signs and no pain at manipulations. Laboratory results were normal, including calcium level.

Conclusion: This case demonstrates an atypical case of subcutaneous fat necrosis, since calcium levels were low at the beginning and remained normal afterwards – this may be related to the low gestational age of the newborn, since published cases are mainly of term newborns. The etiology is still questionable, but may be due to sepsis, and/or induced by local trauma during venous puncture or infection also caused by venous puncture as a portal of entry. Either way, subcutaneous fat necrosis is a rare entity which needs clinical awareness due to potential serious complications.
THEFEAREATEATING-ACASEREPORTr

Pedro Marinho, Francisco Ribeiro-Mourão, Ana de Carvalho Vaz, Vera Gonçalves, Mariana Costa, Hugo Rodrigues
Pediatrie Department, Unidade de Saúde Local do Alto Minho, Hospital de Santa Luzia, Portugal; a.pedro.marinho@gmail.com

Introduction: Choking Phobia defines a specific intense fear of choking on food, beverages, or pills, without any organic abnormalities being present. It is usually traced back to a past traumatic event involving choking, that happened to, or was witnessed by, the patient; however, this identifiable trigger may be absent. It appears to be more frequent in early adolescence, and some authors estimate the period between onset and detection ranges from 2 to 45 years.

Case report: The authors report the case of a previously healthy 6-year-old female, admitted to the Pediatric Emergency Department with acute-onset periumbilical pain, and a maternal perception of an excess of saliva, which the patient avoided swallowing. The parents also described that for the previous 3 weeks the patient’s diet had been comprised of mostly yogurt, refusing to eat solid food elements, with accompanying intermittent bouts of abdominal pain. This was later associated with a choking episode with a piece of steak, that occurred during school lunch. The physical examination of the patient did not unveil any abnormalities. Using the available records, it was established a drop in WHO weight percentile curves, from 50-85th to 15-50th percentile. Blood tests did not present any pathological findings and an abdominal ultrasound was reported as normal. During the inpatient stay, it was possible to assess the behavior of the patient during meal time, with prolonged chewing on small bites, careful inspection of each food element, and avoidance of solid elements. Given this information, the hypothesis of Choking Phobia was considered, and efforts were concentrated on behavioral therapy, which were successful - the patient gradually accepting increasing amounts of solid foods, and decreasing anxious behavior at mealtime. In a follow-up outpatient evaluation, 20 days post-discharge, the patient had increased 1,4 Kg in weight, and the parents described normal diet patterns.

Conclusion: There is in literature a lack of descriptions of Choking Phobia, perhaps due to a wide variety of terms used for this condition, probably underestimating its prevalence. It is also commonly misdiagnosed as an eating disorder or a conversion disorder. In this case, the age of the patient represented an increased challenge regarding biopsychosocial assessment. In literature, both pharmacological (p.e. SSRI’s) and cognitive-behavioral therapy, or their combination, have been used as treatment strategies. Increased awareness of Choking Phobia is necessary to prevent the deleterious long-term consequences, since it appears to have a good prognosis, given early detection.

THEIMPACTONPARENTALINVOLVEMENTONTHEPSYCHOMOTORDEVELOPMENTOFCHILDRENWITHDISABILITIES

Sanda Kadiric-Kasap1, Mirna Mlaco Hricki2
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Introduction: This is a comparative case presentation between two boys who had the same symptoms, passed same diagnostic procedures and had same treatment during two years.

Methods and Results: Both boys have young and healthy parents. Family history - negative on neurological diseases. Psychomotor development seemed normal until the age of 12 months, able to sit, smile, pronounces few words. At the physical examination in the age of 18 months they had no progress in development of speech and was noticed a reduce of attention, the parents were meet and explained about possibilities of diagnostic and therapeutic treatments. The first boy had to visit a doctor more often because he has an bronchial asthma, fluticasone propionate inhaler in therapy but the parents couldn’t accept this diagnose and therapy. He also has a phimosis but they don’t want a surgical treatment so this boy had an recurring urinary infections. In the age of 32 month he was diagnosed an disharmonious development, undeveloped speech. Neuropediatric examination: no clear neurological deficit. Laboratory analysis - normal, MRI -no abnormalities for second boy, first one didn’t do it, ABR test - normal hearing for second boy, first one didn’t do it, ocular examination- no disturbance, EEG – no disturbance.

Treatment: Occupational and physical therapy for two years in association “world in Pictures” with child psychologist, logoped and social educator.

Conclusion: The first boy has no progress in psychomotor development but the second boy has a very good progress and he is going in preschool education now. The difference, during these two years, was in parental involvement in work with their sons. Even the first boy was earlier started with the treatment he has weaker success.

THEINVOLVEMENTOFYOUNGPEOPLEINPROGRAMMESTOSECUREHEALTH-SYSTEMATICREVIEWFINDINGS

Anna Gavine2, Aixa Y. Alemán-Díaz2, Candace Currie3, Irene García-Moya2, Gerald Humphris1, Antony Morgan4
1University of St Andrews, WHO Collaborative Centre for International Child and Adolescent Health Policy, UK; 2University of Dundee, School of Nursing and Health Sciences, Dundee Centre for Health and Related Research, UK; 3University of Hertfordshire, School of Health and Social Work, CRIPACC, UK; 4Glasgow Caledonian University London, UK; ayad@st-andrews.ac.uk

Introduction: This systematic review summarises the scientific evidence base on the benefits of involving young people in the development, implementation and evaluation of programmes aiming to secure health and its related outcomes.

Purpose: The objectives were to: (1) describe the range of theoretical perspectives to develop appropriate logic models that can help to make explicit pathways to health and wellbeing; (2) assess the evidence of the impact that involving young people can have on programme effectiveness; (3) synthesize the accumulated knowledge on the views that young people have of being involved; and, (4) understand the barriers and facilitators associated with the meaningful, appropriate and effective involvement of young people.
Results: The search identified 42 unique studies that involved young people in one or more of: issue identification, needs assessment, development of the intervention, delivery of the intervention and evaluation of the intervention. The majority of studies were conducted in high-income countries. Programmes were exclusively targeted at adolescents (i.e. 10-19 year olds) and focused on a range of health topics with sexual health being the most common. Analysis indicates that participatory approaches with young people are being used in a range of programmes related to the development of health behaviours. Such programmes have demonstrated the capacity to engage and empower young people, for example we found consistent effects for knowledge across a wide range of behaviours. These programmes have also demonstrated some positive effects in health behaviours, especially tobacco use and healthy eating where consistent significant positive effects were identified. However, we found limited effect on behaviour for most other outcomes. Evaluation in the existing studies failed to separately examine the specific contribution of young people’s involvement to programme effectiveness, an aspect that warrants further attention in the future.

Conclusion: Involving young people in programmes enables them to actively participate in matters that affect them. This review draws a striking picture signalling a lack of high-quality research to inform policies and programmes aiming to do just that. This is a critical weakness in the evidence that affects research, policy and programme design and its effectiveness in this area. More high quality studies in which young people are involved in multiple components of participation and also compare the effects between young people actually involved in the implementation, and those received indirectly, are necessary. Additionally, we need better scientific reporting that allows others to replicate high quality interventions. We support the development of reporting standards to improve transparency and research practices, as well as tools that enable the implementation, evaluation and replication of effective programmes.

ID: 257 / PO2: 39
Poster Presentation  Topics: General Pediatrics

TINU SYNDROME - TWO CASES REPORTS
Sofia Helena Ferreira, Ana Teixeira, Helena Pinto
Centro Hospitalar de São João, Portugal; sofiahferreira@gmail.com

Introduction: Tubulointerstitial nephritis and uveitis syndrome (TINU) is a rare disease and it affects more commonly young adult females. It is characterized by both acute and chronic tubulointerstitial nephritis (TIN) and uveitis, although they are not always present at the same time. We report two cases of TINU, with different presentation and clinical course, but still both illustrative of this disorder.

Case Report: Twelve-year-old-boy admitted to our department because of elevation of serum creatinine level. Two weeks before, he presented vomiting, nausea and anorexia and he reported common asthma and one episode of foamy urine. He consumed tea plants frequently. Physical examination was normal. Laboratory tests revealed elevation of serum creatinine, BUN and cistatin C, proteinuria, microalbuminuria and β2-microglobulinuria. Acute EBV, CMV, parvovirus B19, herpes simplex 1 and 2, mycoplasma and clamydea pneumonia infections and auto-immune diseases were excluded. Ultrasonographic (US) examination of the abdomen and pelvis showed increased kidney echogenecity and scintigraphy revealed bilateral cortical lesions. He presented anterior uveitis two months later and topic corticosteroids were started. Kidney histology showed TIN. Because he presented impairment of renal function associated to histological abnormalities, we decided to use oral corticosteroids. Eleven-year-old-boy, with history of anterior uveitis with initial good improvement after treatment with topic corticosteroids, but, because of recurrence, methotrexate was associated. He was admitted to our department because of glycosuria and β2-microglobulinuria. He was asymptomatic and his physical examination was normal. Three months later, he repeated laboratory tests, revealing normal renal function, normal serological and immunological study and regression of the abnormal urinary findings previously described and a normal abdominal and pelvic US examination.

Conclusion: In conclusion, the cases described regard a rare disease, highlighting the necessity to consider this diagnosis when TIN and uveitis are associated. Despite frequent recurrences of uveitis, complete resolution of renal changes is common. Systemic corticosteroids may be considered in progressive or significant renal disease.

ID: 207 / PO2: 40
Poster Presentation  Topics: General Pediatrics, Epidemiology

WHAT IS CAUSING ACUTE INTERSTITIAL NEPHRITIS IN THE PEDIATRIC AGE GROUP? – THE EXPERIENCE OF A THIRD LEVEL HOSPITAL
Inês Maio1, Liane Correia-Costa1,2, Teresa Costa1,2, Conceição Mota1,2
1Pediatrics Department, Centro Materno Infantil do Norte, Centro Hospitalar do Porto and Instituto de Ciências Biomédicas Abel Salazar, University of Porto; 2Pediatric Nephrology Unit, Centro Materno Infantil do Norte, Centro Hospitalar do Porto and Instituto de Ciências Biomédicas Abel Salazar, University of Porto; inesmaioconcalves@gmail.com

Introduction: Acute Interstitial Nephritis (AIN) is an increasingly important cause of acute kidney injury and is classically divided into drug-related and non-drug related types. The most common cause of AIN, in all age groups, is related to the use of non-steroidal anti-inflammatory drugs (NSAIDs), but other causal factors, such as infections and tubulointerstitial nephritis with uveitis (TINU) should also be considered.

Purpose: To describe the epidemiological and clinical characteristics, as well as the risks factors for poor outcome, in pediatric patients diagnosed with AIN.

Materials and Methods: Retrospective analysis of all children and adolescents aged <18 years, admitted as inpatients from 2001 to 2016 in a tertiary hospital, with the diagnosis of AIN. Clinical records were reviewed. Statistical analysis was performed in SPSS.

Results: Thirteen patients were included in the present analysis, 7 boys and 6 girl, with a median (25th percentile-75th percentile, P25-P75) age of 15 years (12-16.5yr). NSAID-associated NIA was the most common cause among cases with a predisposing factor identified (n=5/10) and ibuprofen was the most commonly implied drug. One case was associated with a rotavirus infection. Acute kidney injury manifested with oliguria only in 3 cases. On admission, leukocyturia was present in 12 (92%) cases and erythrocyturia in 9 (69%). None presented eosinophilia. Eight (62%) patients were treated with corticosteroids and only 1 case needed peritoneal dialysis. The median (P25-P75) time until recovery was 8 (5-10) days and all patients experienced full renal function recovery. The number of days until full recovery was correlated with the maximum serum creatinine values (ρ =0.22; p=0.019) but no association was found with the use of corticosteroids.
PO2: POSTER PRESENTATIONS: SESSION 2

Conclusion: As described in the literature, NSAIDs were found to be the most common causative agent of AIN in our series. We report an interesting association between maximum serum creatinine and a lengthier recovery. Our results do not support the empiric suspicion that corticotherapy might accelerate recovery in AIN patients but larger prospective studies are needed to allow further conclusion on this.

ID: 107 / PO2: 41
Poster Presentation  Topics: General Pediatrics

EFFECTS OF A SCHOOL-BASED ASTHMA INTERVENTION ON CHILD AND PARENTAL ILLNESS BELIEFS ABOUT ASTHMA AND EXERCISE.
Marina Reznik, Philip O. Ozuah
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Introduction: Physical activity (PA) is important for asthma management. However, child and parental illness beliefs such as fear about asthma attacks with exercise may preclude child PA participation. We developed a multifaceted school-based intervention to address this and other barriers to PA.

Purpose: Our objective was to assess intervention effects on asthma and exercise risk perception, self-efficacy and outcome expectancy in urban schoolchildren with asthma and their parents.

Materials and Methods: We conducted a pilot cluster RCT in children (7-10 years) with asthma attending 4 Bronx, New York schools (2 intervention, 2 control). Intervention consisted of a school-wide asthma awareness event, collaboration with child’s physician to assure optimal treatment, classroom-based PA, and asthma education for families and school personnel. Parents and children completed surveys at baseline and 6-months post-intervention to assess asthma and exercise risk perception, self-efficacy and outcome expectancy. ANOVA was used to compare scores between two groups controlling for baseline.

Results: We recruited 109 child-parent dyads (mean age 8.6 (SD .99) years, 53% male, 80% Hispanic). Post-intervention, parents were significantly less likely to believe that exercise is harmful to asthma and were less worried about stigma than controls. Children tended to feel more competent in overcoming barriers to PA, had a greater intention to participate in PA, were less likely to feel that exercise would have negative consequences on asthma, and were less worried overall and about asthma-related stigma (Table).

Table: Comparison of intervention and control groups on child and parental illness beliefs about asthma and exercise.

<table>
<thead>
<tr>
<th>Outcome Measures</th>
<th>Intervention (n=58)</th>
<th>Control (n=47)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PARENTS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outcome Expectancy – Asthma</td>
<td>0.80 (0.65; 0.95)</td>
<td>1.06 (0.90;1.22)</td>
<td>0.020</td>
</tr>
<tr>
<td>Risk Perception – Stigma</td>
<td>1.01 (0.74; 1.27)</td>
<td>1.49 (1.21;1.78)</td>
<td>0.014</td>
</tr>
<tr>
<td><strong>CHILD</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intent to Participate in PA</td>
<td>2.22 (2.09; 2.34)</td>
<td>2.04 (1.90; 2.18)</td>
<td>0.063</td>
</tr>
<tr>
<td>Outcome Expectancy – Negative Effects of PA</td>
<td>8.27 (7.84; 8.71)</td>
<td>7.73 (7.25; 8.21)</td>
<td>0.098</td>
</tr>
<tr>
<td>Risk Perception – Overall Scale</td>
<td>0.76 (0.61; 0.91)</td>
<td>1.01 (0.84; 1.17)</td>
<td>0.035</td>
</tr>
<tr>
<td>Risk Perception – Stigma</td>
<td>1.92 (1.80; 2.05)</td>
<td>2.14 (2.00; 2.28)</td>
<td>0.024</td>
</tr>
</tbody>
</table>

*presented as mean (95% CI); PA=physical activity. ANOVA was used to control for baseline scores. Lower score = desired; higher score= desired

Conclusion: Our intervention improved child and parental illness beliefs about asthma and exercise. These results may have implications for policy change to incorporate intervention components in urban schools.

ID: 219 / PO2: 42
Poster Presentation  Topics: Endocrinology & Growth

PATIENT SUPPORT PROGRAMS: GLOBAL FOOTPRINT AND BEST PRACTICE FOR PATIENTS AND HEALTHCARE PROFESSIONALS.
Daniel Richter, Annett-Helen Schoennagel, Ekaterina Koledova
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Introduction: Patient Support Programs (PSPs) delivered via a variety of channels are important to educate, support, assist with access/management, and provide care for patients and healthcare professionals on the use of medicinal products.

Purpose: To show how the application of a best-practice governance model, including Performance Mapping, can optimize the benefit to patients from PSPs, using the specific example of the PSPs available to patients taking recombinant human growth hormone (r-hGH; somatropin).

Materials and Methods: The main tenets of the PSPs are in place to support sound principles that are consistent with applicable laws and codes and to avoid improper incentives. The PSPs meet all ethical, legal and regulatory obligations, including pharmacovigilance requirements, and the design and execution are fully documented. The PSPs are run under medical-governance processes, and the accountability and responsibility for each PSP is assigned to a lead person in each country. In addition, all newly planned PSPs have to be approved by a cross-functional governance board. A global policy and supportive training for PSPs, with the mapping and tracking of all ongoing PSPs through a central database, ensures the high quality of each PSP is maintained. In the event a certain defined risk threshold is exceeded by a PSP, a mitigation plan is initiated.

Results: Through the application of our model, we have achieved efficient and holistic PSP governance, from the planning to reporting stages, with clear responsibilities and structures leading to accountability and synergies. As of June, 2017, there were more than 150 planned or ongoing PSPs worldwide. Of these, more than 40 related to endocrinology (four in North America, nine in Latin America, 18 in Europe, the Middle East and Africa, and ten in Asia-Pacific), including >48,000 patients and >64,000 patient interactions. The overall ratio of patient interactions to active-patients, measured as a part of performance mapping, was 1.31 in the second quarter of 2017. The PSPs interacted with...
CONGENITAL CMV – APPROACH TO SCREENING NEONATES
Maria Chiara De Nardo, Nilüfer Güzoğlu, Prakash Desai
Chelsea and Westminster hospital, United Kingdom; mariachiara@libero.it

Introduction: Congenital Cytomeglovirus (cCMV) is the most common congenital infection that is associated with a wide spectrum of clinical symptoms. Early detection and treatment of affected infants may improve outcomes. However, there is no consensus on the prospective of CMV screening in neonates.

Purpose: The screening criteria for Congenital CMV are not uniform across Neonatal Units in United Kingdom. Many units screen for cCMV if they are born Small for Gestational Age (SGA) or with Intra uterine growth restriction (IUGR) (Symmetrical or Asymmetrical). The criteria for SGA is also not uniform with some units consider birth weight less than 2nd centile or less than 9th centile. Babies are also screened for cCMV after detecting changes in intracranial calcification, cysts, lenticulostriate vasculopathy, ventriculomegaly on cranial ultrasound (CrUSS). In this observational study, we aimed to see if our screening of well babies mostly done for IUGR/SGA or CrUSS abnormalities pick up cCMV.

Methods: Between January 2014 and August 2017, all blood or urine samples sent for testing CMV from infants within the first 21 days were included. Reason of request, and birth weight were documented. CMV was established by detection of CMV DNA by real-time polymerase chain reaction testing in body fluids.

Results: During the study period, CMV testing was performed in 170 infants. 132 infants were IUGR/SGA, 27 infants had intracranial calcification/cyst on CrUSS, 4 infants were IUGR with CrUSS changes and 7 infants had microcephaly. Congenital CMV infection was detected in 3 of 170 (1.8%) infants tested.

<table>
<thead>
<tr>
<th>Baby</th>
<th>Gestational age (weeks)</th>
<th>Birthweight (gr)</th>
<th>Centile</th>
<th>Symptoms</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baby 1</td>
<td>26+4</td>
<td>1008</td>
<td>50th <em>-75th</em></td>
<td>Prematurity Intracranial cyst</td>
<td>Died</td>
</tr>
<tr>
<td>Baby 2</td>
<td>35+4</td>
<td>2423</td>
<td>25th -50th</td>
<td>Exomphalos Heart disease</td>
<td>Died</td>
</tr>
<tr>
<td>Baby 3</td>
<td>36+3</td>
<td>1825</td>
<td>&lt; 2nd centile</td>
<td>Hypoglycaemia Symmetrical IUGR</td>
<td>No treatment Follow-up</td>
</tr>
</tbody>
</table>

Table 2. The reason of CMV screening test of infants

<table>
<thead>
<tr>
<th>Reason</th>
<th>cCMV</th>
</tr>
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<tbody>
<tr>
<td>IUGR/SGA (n=132)</td>
<td>2</td>
</tr>
<tr>
<td>IUGR and Cyst/calification (n=4)</td>
<td>1</td>
</tr>
<tr>
<td>Microcephaly (n=7)</td>
<td>0</td>
</tr>
<tr>
<td>Cranial cyst/calification (n=27)</td>
<td>0</td>
</tr>
</tbody>
</table>
Conclusion: In the study, all the 3 babies identified were admitted to the neonatal unit and none of the well babies in postnatal ward who were investigated for cCMV were positive. Babies who had isolated CrUSS findings were negative. This would indicate for us to screen only symptomatic or symmetrical IUGR babies rather than all IUGR/SGA babies and based on antenatal history.

SMOKING DURING PREGNANCY: IMPACT ON THE NEWBORN?
Marta Isabel Pinheiro1, Cristina Ferreras1, Hernâni Brito2, Paulo Ferreira2, Carlos Sistelo2, Célia Madalena2

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Introduction: Smoking during pregnancy increases the risk of infertility; maternal and fetal adverse outcomes and postnatal problems have also been described. All pregnant women should be screened for the use of tobacco and it is a special occasion to promote smoking cessation; it is an important modifiable risk factor with maximum benefit in the first trimester.

Purpose: This study aims to discover the prevalence and the habits of mothers who smoked during pregnancy at Centro Hospitalar da Póvoa do Varzim/Vila do Conde-Portugal and the characteristics of pregnancies and newborns.

Materials and Methods: Prospective analysis of medical questionnaires made to new mothers who smoked during pregnancy, whose children were born at our hospital between July 2014 and July 2017. It is possible that some pregnant women hide their true smoking status. The confidentiality of the data was ensured.

Results: The group included 132 postpartum women with a 30 years-old median age (corresponding to a prevalence of 5.1% of smoking mothers in this period), predominantly healthy; 95.5% of the pregnancies were well monitored and 4.5% were poorly monitored; 49.2% were primiparous, 19% had a previous abortion. On average, women started smoking at the age 16 (on average, 10 cigarettes/day) and there were 79.5% of fathers who smoked (15 cigarettes/day). According to Fagerstrom's test, 80.3% of mothers had a low degree of tobacco dependence, 18.9% moderate and 0.8% high. During pregnancy, 66% reduced smoking to half and 19% stopped it; 57.6% said they were advised to stop smoking (13% preconception), 2.3% had a specific medical appointment and 2.3% did pharmacotherapy. The mean gestational age was 39 weeks (min 32; max 41) with an average weight at birth of 3147g (min 2090g; max 4690g; 5.3% of low weight); 17.4% of pregnancies had some complications and 3% of newborns required neonatology care.

Conclusion: Smoking prevalence during pregnancy, in our center, was lower than other studies (11-27%). Although there was no control group in this study, there seems to be no relation between smoking and lower gestational age or low birth weight, as described. However, pregnancy was associated with a change in smoking habits. This study brings to light the need for professionals to improve their knowledge on prevention of smoking during pregnancy and the postnatal period, with specific data, appointment and, if necessary, suggest pharmacotherapy.
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