Previsit planning: Blow It All Up

Chelly Dykes, MD
Clair Talmage, PA
Alex Jofriet
Practice overview

- 17 physicians, 1 IBD PA (inpatient/outpatient/program management)
- 17 satellite locations in the Atlanta area
- All physicians are full time clinician only
- Associated with Children’s Healthcare of Atlanta (CHOA)
History of PVP (version 1.0)

- As part of weekly meeting, PVP completed for patients based on highest CSS scores or nutritional status
  - Chart review by IBD PA
  - Discussed with ICN core docs, IBD PA
  - Medication recommendations provided
  - Combines PVP with population management
- Remainder of PVP completed by individual providers
- PVP forms provided weekly for review
PVP: Define the problem before fixing it

- What is the problem?
- Why is it a problem?
- Who does it affect?
- How do we know it is a problem?
- How does the problem surface?
- How often does it occur?
- What has been done in the past to address the problem? What happened?
- Is there data available to quantify the problem?
History of PVP at GI Care for Kids

- Small number of patients (sickest) addressed at weekly meetings
- For all others, traditional ICN based PVP forms in use until 2017
- What happened:
Feedback from providers: define the problem

- “I entered this information at last visit, it does not change my care today”
- “I don’t have what I need to make changes at the visit”
- “Information is hard to find...too much text”
- “I don’t need some of this information for a (well/sick/older/younger) patient”
- “I need information that helps me take care of the patient today”

So basically... “We don’t like these forms.”
Version 2.0 (PDSA 1)

- Trial of different presentation of data (3 different forms to choose)
- Still felt:
  - Stale
  - Hard to read
  - Wasted time hunting for data
  - Information not helpful
- Also:
  - Some docs did not get their forms before the patient’s visit if the doc was at satellite
PDSA #2: Second Version Also Pulled from ICN but...

- Used color blocks to highlight and organize
- Included a snapshot timeline of disease activity over the past year
- Still required time to review and find information
- Lab values, medications, dosing not always current if changes were made between visits
- Second page never looked at
- Most PVP’s...
PDSA #3: Continued with second version but...

- Reviewed each PVP for pilot group of MDs
  - Circled important information
  - Made comments and suggestions
  - Filled in labs or meds if not current

- Feedback:
  - Do not need positive remarks
  - Only want pertinent data and immediate needs
  - Improved rate of PVP’s reviewed by MD but
  - Time consuming for reviewer
  - **NOT SUSTAINABLE**
PDSA #4: Health Maintenance PVP

- Format changed to a single sheet
- Different sections in different boxes
- Ability to check items and fill in blanks
- Content included:
  - Diagnosis date
  - Endoscopy dates, due dates
  - Health maintenance, vaccinations
  - Pre-treatment screening, monitoring
  - Recent labs, recommended labs
PDSA #4: Health Maintenance PVP

- **Pilot:** went through one physician’s IBD patient list
- **Completed PVP for all 89 patients**
- **Time consuming:**
  - Input hand written as opposed to uploaded through EMR
  - Finding labs difficult, especially drug levels
  - Setting up filters in EMR helped speed up process
  - Some information can be carried over from visit to visit but
  - Most will require updating
  - Need a place for this document to “live”
  - **Not Sustainable**
PDSA #5: Check List for Upcoming Visit (Ditched the forms)

- Diagnosis, Location, Last Endoscopy
- Check what is needed, last value, date, guidelines
  - TB Test
  - Drug Level, Ab Status
  - Vitamin D
  - Calprotectin
  - Hepatitis B
  - Pneumococcal
- Problem List
- Additional Comments, Labs, Recommendations

IMPROVECARENOW

GICARE FOR KIDS

Children's
Healthcare of Atlanta
Dedicated to All Better
Summary of initial PDSAs

- Targeted information was needed (mild and mod/severe may need different things)
- One page, not too much text
- Ditching the ICN form was better
- Health maintenance information was needed
- Lots of time required
Key items to include for next steps

- Reaching quiescent state (deep remission) means decreased frequency of office visits
- Need to optimize their office visit time to ensure these patients are consistently meeting Health Maintenance needs
- Ideally: reduce number of patients delinquent in:
  - TB Screening
  - Hep B Screening
  - Drug Levels
  - Vitamin D Levels
  - Pneumococcal Vaccination
- Improve patient outcomes through preventative measures
- Maintain quiescent disease through optimal drug dosing
PVP version 3.0

- Create a sustainable tool for tracking and improving Health Maintenance in pediatric IBD patients prior to the routine office visit.
- Previous measures implemented have failed to improve clinical and health maintenance recommendations when the provider is at bedside.
Initial PDSAs

- Quiescent disease (ie did not have mild, moderate, or severe disease activity at their last office visit)
  - Needed smaller patient population to trial
- On biologic therapy (Remicade, Humira, Entyvio, Stelara)
- Attempt to complete in the medical record
Expected outcomes

- Reduce the number of patients who are delinquent in 5 Health Maintenance recommendations (TB screening, Hep B immunity, pneumococcal vaccinations, Vitamin D deficiency, and therapeutic drug levels)
- By conducting this process prior to the visit, provider can optimize the time he/she has to spend with the patient
- Remaining up to date on the recommended health maintenance needs will in turn improve patient outcomes through preventative measures
- Optimizing drug dosing will help maintain quiescent disease
- Provider will also be visually prompted to discuss other key health maintenance topics such as self-management (based on the patient’s age)
- Building self-management skills will help in transition process to adult medicine
Aim statement

- By November 14, 2018 we aim to conduct pre-visit planning on IBD patients who have quiescent disease and are on biologic therapy in order to improve the percentage of this patient population on any given week who have had Hep B screening (41% at baseline), yearly TB screening (55% at baseline), yearly drug levels (52% at baseline), yearly Vitamin D levels (64% at baseline), and pneumococcal vaccination referrals (11% at baseline) to 80% as measured from providing completed PVP forms/recommendations to the provider the week prior to the visit.
Current (baseline) conditions

Percent of Patients with Health Maintenance

TB: 50%
Hep B: 40%
Drug Level: 50%
Vit D: 60%
Pneumovax: 10%
Problem analysis

Fishbone Diagram

- **Management**
  - Time consuming for reviewer, poor time management
  - Initially, no standard process

- **Machine**
  - Computer generated PVP may not be up to date, delay in data entry
  - Computer generated PVP doesn’t always contain Health
  - Print PVP, deliver to provider’s desk prior
  - No Health Maintenance orders placed prior

- **Man**
  - Provider not reading the printed PVPs
  - Computer generated not always available
  - Printed version hard to read

- **Measurement**
  - No means of tracking if recommendations were discussed or
  - Printed version printed in main office, not satellites

- **Method**
  - Added step of having individual review PVP and patient chart prior to giving PVP to

- **Materials**
  - Printed version requires paper and printer
  - Printed version 3-4 pages long

- **Pre Visit Planning for Health Maintenance on IBD patients with quiescent disease on biologic therapy is not being done**
  - Computer generated requires personnel for data entry
  - If dedicated person available to review PVP and do chart review, no back-up, not sustainable if individual out

Printed version 3-4 pages long
## Countermeasures

<table>
<thead>
<tr>
<th>Action/Test of change</th>
<th>Outcome/what was learned?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piloted Health Maintenance Pre Visit Planning with two providers and filled out check list by hand</td>
<td>Group consensus on HM Guidelines HM check list by hand time consuming Started Pre Charting method second week</td>
</tr>
<tr>
<td>Piloted Pre Charting method for Health Maintenance PVP with same providers</td>
<td>Creating Smart Phrase saved time Providers needed guidance to find recs</td>
</tr>
<tr>
<td>All providers had Pre Charting Health Maintenance Pre Visit Planning in place prior to visit</td>
<td>Not all providers were able to order recs (financial burden, no insurance, no PCP)* Some providers wanted orders entered Not time efficient for reviewer to order</td>
</tr>
<tr>
<td>All providers emailed in advance to review Pre Charting HM PVP and place orders</td>
<td>All providers gave favorable feedback for PVP process, incorporated recs into notes</td>
</tr>
</tbody>
</table>
*Change in Metric*

- Not all providers were able to fulfill the Health Maintenance recommendations.
- Follow through was both patient and provider dependent.
- Changed outcome measures to:
  - All IBD patients with quiescent disease on biologic therapy will have Health Maintenance Pre Visit Planning in place.
  - All recommendations will be available during the office visit with implementation of recommendations left to each provider’s discretion.
Future Value Stream analysis

- **Note Created through Pre Charting**
- **Chart Reviewed**
- **Health Maintenance recommendations in place**

**Smart Phrase with HM rec**
- **TB**
- **Hep B**
- **Vit D**
- **Drug Level**
- **Pnmvax**

- **Provider alerted PVP available**
- **Orders placed, Referrals made**

**HM recs incorporated into Progress Note once note signed by provider**

- **Patient’s Office Visit**

**Provider sees HM recs as soon as Progress Note is started**

- **IMPROVECARENOW**
- **giCARE FOR KIDS**
- **Children’s Healthcare of Atlanta**
  
  Dedicated to All Better
## Problem analysis
### Tally Sheets

<table>
<thead>
<tr>
<th>WEEK</th>
<th>TB</th>
<th>HEP B</th>
<th>DRUG LEVEL</th>
<th>VIT D</th>
<th>PNMVX</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3/4 = 75%</td>
<td>3/4 = 75%</td>
<td>3/4 = 75%</td>
<td>2/4 = 50%</td>
<td>3/4 = 75%</td>
</tr>
<tr>
<td>2</td>
<td>4/4 = 100%</td>
<td>4/4 = 100%</td>
<td>4/4 = 100%</td>
<td>4/4 = 100%</td>
<td>4/4 = 100%</td>
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<tr>
<td>3</td>
<td>4/7 = 57%</td>
<td>2/7 = 28.5%</td>
<td>4/7 = 57%</td>
<td>3/7 = 43%</td>
<td>3/7 = 43%</td>
</tr>
<tr>
<td>4</td>
<td>20/25 = 80%</td>
<td>12/25 = 48%</td>
<td>22/25 = 88%</td>
<td>15/25 = 60%</td>
<td>11/25 = 44%</td>
</tr>
<tr>
<td>5</td>
<td>13/16 = 81%</td>
<td>10/16 = 62.5%</td>
<td>12/16 = 75%</td>
<td>10/16 = 62.5%</td>
<td>6/16 = 37.5%</td>
</tr>
<tr>
<td>6</td>
<td>15/15 = 100%</td>
<td>12/15 = 80%</td>
<td>15/15 = 100%</td>
<td>15/15 = 100%</td>
<td>8/15 = 53%</td>
</tr>
<tr>
<td>Total</td>
<td>59/71 = 83%</td>
<td>43/71 = 60.5%</td>
<td>60/71 = 84.5%</td>
<td>49/71 = 69%</td>
<td>35/71 = 49%</td>
</tr>
</tbody>
</table>
Test of change
OVER A SIX WEEK PERIOD

Percentage of Patients with Health Maintenance

- TB
- Hep B
- Drug Level
- Vit D
- Pneumovax

Pre vs. Post
Metrics/results

Test Group had PVP but, not all were seen.

Test Group knew.

Expanded to all MDs.

All MDs had PVP but not all were seen.

All MDs saw and utilized PVP.

Percentage of PVPs Utilized

PVP Utilized

Week 1  Week 2  Week 3  Week 4  Week 5  Week 6

0  10  20  30  40  50  60  70  80  90  100
Metrics/results

Number of Patients with PVP per Week

- QB PVP
- ALL PVP

Week 1 to Week 10
Sample Current PvP

Health Maintenance PvP
- Quiescent Disease on Remicade

Recommendations for this visit:
- Adjust drug dosing this infusion and repeat level after 2 new doses in treatment change, last level 3.1 and no Ab on 9/18/18, got 9mg/kg that infusion, room to increase dose/frequency
- Check Hep B Surface Ab and Hep B Surface Ag in the event booster or repeat series indicated (has not had previous testing)
- Refer for Flu Shot
- Refer for Pneumococcal Vax: Needs 1 dose PCV 13 (received PCV 7 as infant), then first PPSV 23 (at least 8 weeks after PCV 13), then second PPSV 23 (5 yrs later)
- IBD patients should be screened for PSC with GGT every 6-12 mos (no prior GGT)
- Discuss Self-Management (>17yo): see below

Recent/Upcoming:
- Update TB Quantiferon Gold in September, 2019 (yearly)
- Check Vit D in March, 2019 (recommend every 6 months, last level 30 in Sept)
Self Maintenance Questions: Building Knowledge and Independence

By the ages of 12-14yo, you should be able to:
- Describe your GI condition
- Name your medications, the amount, and times you take them
- Describe the common side effects of your medications
- Know your doctors’ and nurses’ names and roles
- Answer at least 1 question during your health care visit
- Manage your regular medical tasks at school
- Know how to call your doctor’s office to make or change an appointment
- Describe how IBD affects you on a daily basis

By the ages of 14-17yo, you should:
- Know the names and purposes of the tests that are done
- Know what can trigger a flare
- Know your medical history
- Know how to reorder your medications and call your doctor for refills
- Be able to answer most of the questions during your office visit
- Spend most of the time alone with your doctor during your office visit
- Understand the risk of medical nonadherence

By the age of 17yo and older, you should:
- Know which medications to avoid due to interaction with currently prescribed medications
- Be alone with your provider throughout the visit or choose who is present
- Know the new legal rights and responsibilities gained when you turn 18 years old
- Manage all medical tasks outside of the home (ie at school, at work)
- Know how to get more information about IBD
- Be able to schedule your own appointments, refill prescriptions, and contact your health care provider
- Know the length of coverage under your parents insurance plan and the necessary steps to maintain coverage over the next 2 years
- Carry your health insurance information in your wallet/purse/backpack
Follow up

- Expanded Pre Visit Planning to ALL IBD Patients
- Agreed on HM Guidelines within each IBD population
  - Group meeting to achieve consensus
- Created Smart Phrases for different IBD populations
  - Quiescent Disease (all medication classes)
  - Mild Disease (all medication classes)
  - Moderate / Severe Disease (IM, biologic therapy)
  - S/P Colectomy
  - Thiopurine Therapy
  - Extraintestinal Manifestations (Example: PSC)
Follow up/Next steps

- PVP being done during weekly IBD meeting by 4 providers which helps with sustainability and time management
  - (Sometimes we fail this if meeting gets canceled)
- “Unvalued time” seems to be time spent reviewing chart and manually entering in HM recommendations
- Have asked for Healthy Planet or similar program that will benefit all patient populations across CHOA network
- Benefit for IBD patients will be having Health Maintenance recommendations auto populate
What does the workflow look like?

- Coordinators provide patient list to medical team for upcoming patients
  - Name, DOB, Date of visit, last visit, MD, location of visit, primary treatment med, and who is doing review
- Medical team is divided to review PVPs
- Pre-charting tool is used to complete PVPs at least a week prior to visit
- MD has recommendations available day of visit (can cut/paste into note/plan)
Data/coordinator experience

- Changes improved coordinator workflow
  - Then:
    - Previously printed 50 ICN PvP’s per week
    - Time lost compiling, printing, stapling, and distributing each week
    - Frequently saw last week’s PvP’s in the same spot as they were left when distributing the week later
  - Now:
    - Reviewing and completing PvP’s electronically in person during weekly ICN meetings means time used more efficiently
- Bottom-line: Saved time & Happier docs
QUESTIONS?