THE ENVIRONMENTAL FOOTPRINT OF SEPTIC SHOCK PATIENTS IN THE ICU

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What are the <u>environmental effects</u> of the treatment of a standard adult ICU patient with septic shock including the use of all machines, consumables and reusables for the <u>duration of an ICU stay</u>?

Life cycle Assessment



Process LCA







Economic input-output LCA





Electricity







Heating, Ventilation, Air Conditioner





Patient data collection

Personal Protective Equipment

Plastic Aprons	
Gloves	
Goggles	
Sterile Gloves	
Sterile gowns	

Drugs as infusions

Noradrenaline	
Morphine	
Fentanyl	

Hygiene

Towels (reusable linen)	
Sheets (reusable linen)	
Pillow cases (reusable linen)	
Disposable paper towels (number of sheets)	
Disposable tissues	

Specimen collection

Vacutainer	
Vacutainer transfer device	
Butterfly	

CVVHDF

Filter changed	
Effluent bag	
Hemosol bag	

Tray 1

Dressing packs	
Gauze	
Cotton balls	
Mefix	
Transpore	
Sleek	
Cavilon	
Unisolve	
10 mL Water	
for injection	
10 mL 0.9 NaCl	

Imission Document	s Summary Forms/Checklists 0	Orders Notes Fi	owsheets Lab	Data Dischar	ge Documents	Other Worl	k Folder 1/0 1	ools		
Flowsheet (Adu) Ventilator Flowsh	Flowsheet (Adult)	11/10/2007 4:00 AM	5:00 AM	6:00 AM	7:00 AM	MA 00:8	9:00 AM	10:00 AM	11:00 AM	9
VS Graph Vital Signs	Image: Second									40.0
1/O Graph 1/O Respiratory			1	ŧ –		• •		-		
Lines		0			-		-	-		30.0
Assessment	Biltiazem 100 mg in 100 m Bopamine 200 mg in 250.				10 mg/hr ((410)	10 mg/tr	10 mg/hr	10 mg/tr	10 mg/hr((0)	
Treatments	Regular Insulin 100 Units I	n 3 Units/h	3 Units/hr	3 Units/hr	3 Units/hr	3 Units/hr	3 Units/hr	3 Units/hr	3 Units/hr	
Medications	B D5 1/2 NS 20 mEq Potassi			50	50(1200)	50		50	50(200)	
Labs	Foley Insert Date Stool Color	8/24/2007	8/24/2007	8/24/2007	8/24/2007	8/24/2007	8/24/2007	8/24/2007	8/24/2007	
Scores	Stool Char									
Bundles	Stool Amount				00.00000					
Miscellaneous	■ Unine: Foley B Diltazem 20 mg IV Now	110	90	75	80(1590)	200	180	140	100(620)	
	⊛ Furosemide 100 mg IV Now									
	⊛ Furosemide 80 mg IV q 12 h				60 mg IV					
	Acetaminophen 650 mg PO; NG q 4 hr pm									
	⊌ Lorazepam 2 mg IV q 2 hr pm				2 mg IV				2 mg 1∨	

Future implications



Thanks!