Vancouver Coastal Health	Coastal Simulation Program Scenario Name: infant sepsis, hypoglycemia, and seizure	

Learning Objectives:

By the end of the debriefing the participants should be able to:

Knowledge & Skills: - recognize and treat decompensated shock

- treatment for sepsis
- assess for and treat hypoglycemia in unwell children
- treatment of seizures

Attitudes and Judgement:

Patient Safety:

Patient Description:5 week old term infant	**Skills required prior to simulation/learner assessment:**
Name:Manpreet Age: 5 weeks Weight:4.8 kg Immunizations: nil *Hx of current condition*:poor feeding and irritability for the past 12 hours - just developed a fever and difficult to wake since - had a 15 second blue spell at home before coming to hospital - if asked, the pregnancy, labour and delivery were normal except mom has a past history of herpes Social Hx:2nd child, lives with mom and dad, no concerns Diagnosis:sepsis, herpes encephalitis	Psychomotor: IV Cognitive: Teamwork: Who are my learners? RT, nurses, pediatrician

Monitors: cardiorespiratory, O2 saturation	
Physical Props/Equipment: - IV	**References, Resources, Protocols, Algorithms, or Evidence Informed Practice Guidelines:** pediastat ● BCCH drug book
Equipment available in room:	

Room set up: pediatric room	**Medications & Fluids:N/S, D10W,ampicillin, cefotaxime or gentamicin, acyclovir, benzodiazepine, phenytoin, phenobarb**	**Diagnostics:** glucometer, CBC, chem 7, blood culture, consider urine catheter sample for U/A and culture, consider LFT's	**Documentation forms:**	**Confederates**
Mannequin: SIM baby				
Personnel:				

Scenario Transitions / Patient Parameters	Effective Management	Consequences of Ineffective Management	Notes
phase 1 Setting:			
HR 180, RR 35, BP 55/30, O2 sats 95% on R/A, temperature 39.2 sinus rhythm shock - cap refill 4 seconds, periphery cool, rouses only to stimulation normal respiratory exam initial glucometer 1.7	IV with fluid bolus (10-20 cc/kg of N/S or D5N/S) for low BP 2.5-5 cc/kg of D10W if D5N/S was not used for the fluid bolus bloodwork with IV start if possible including glucometer	babe does not wake up if hypoglycemia not treated BP drops to 50/25 and then 40/20 if fluid bolus not initiated	if hypoglycemia is treated, the baby is more alert active, and is spontaneously opening eyes, repeat glucometer 5.6 HR decreases to 170 and Bp rises to 70/40 after fluid bolus
phase 2			
	start antibiotics (ampicillin/gentamicin or ampicillin/cefotaxime) and acyclovir		
phase 3			
generalized T/C seizure HR 180, RR 35, BP unrecordable, O2 sats 70 % on R/A	O2 and then O2 sats increase to 92% (sats drop if the participants don't make sure the mask if placed properly or if the mask is not hooked up to O2) anticonvulsants (consider rapid acting benzodiazepine followed by dilantin 15-20		seizure stops after the dilantin has been started

	mg/kg IV over 20 minutes)		
phase 4			
HR 170, RR 35, T 39.2, BP 70/40	consider antipyretics arrange for transport		

Possible debrief points: - recognition of sepsis due to bacteria and herpes - fluid resuscitation - checking for, and treating hypoglycemia - antibiotics and antivirals - treatment for seizures - communication - using all resources available	Debrief notes
