Case Title	Child Health BC Provincial Pediatric Sepsis Recognition and Management Simulation (ED)
Scenario Name	Pediatric Sepsis

Learning Objectives

Knowledge:

- 1. Discuss and demonstrate recognition of pediatric sepsis and illness severity
- 2. Demonstrate understanding of when to engage specialist support, and consideration of transfer to higher level of care

Technical Skills:

- 1. Recognition of sepsis and illness severity utilizing BC PEWS (Pediatric Early Warning System)
- 2. Demonstrate basic management of sepsis
- 3. Demonstrate use of Child Health BC Provincial Pediatric Sepsis Screening and Management for Emergent/Urgent Care Settings Guideline
- 4. Demonstrate resuscitation skills (including correct use of Broselow tape, IO insertion, fluid bolus using IV pump and 3 way stop cock, and starting an epinephrine infusion)

Non-technical Skills:

- 1. Demonstrate team skills
- 2. Demonstrate crisis resource management and critical thinking

NOTE: The BC Simulation Network's Crisis Resource Management Reference (CRM model v9) in Appendix A outlines the components of effective CRM and can also be downloaded from the BC Simulation Network Simulation Resources Page

3. Demonstrate seeking timely support from regional and provincial resources

Scenario Environment	
Location	Triage and ED Resuscitation area
Monitors	Cardiorespiratory Monitor
Props/Equipment	Supply list:
	☐ CTAS scoring aid and CEDIS coding sheet,
	☐ Age appropriate PEWS documentation tools,
	☐ Child Health BC Pediatric Sepsis Screening and Management for Emergent/Urgent Care Settings Guideline, Screening Tool
	and Algorithm,
	☐ Airway intervention equipment,
	☐ Broselow tape,
	☐ Pediatric resuscitation cart,
	☐ Personal protective Equipment,
	☐ Medications,

	□ IV Pump, Syringe Pump with appropriate drug library loaded,
	□ Normal saline,
	□ IV line, 3-way stop cock,
	□ syringes,
	□ pressure bag,
	□ IO equipment and IO trainers,
	□ smart phone,
	□ child sized manikin
Makeup/Moulage/Image	Purpura/Petechiae
Confederates/Actors	Parent(s)/Caregiver(s)

Facilitator Notes

CASE SUMMARY: This is a case of an otherwise well child who presents with septic shock due to meningococcemia. Patient declines despite fluid resuscitation, and then develops respiratory evidence of fluid overload. Patient ultimately requires epinephrine infusion. In the final stage of the case, this can either end with epinephrine infusion management or progression to intubation depending on learner's level of training and/or learning needs.

BEFORE THE SIMULATION

NOTE: The BC Children's and Women's Simulation Pre-brief Checklist can be found in Appendix B of this document; and can also be downloaded from the BC Simulation Network Simulation Resources Page

- 1) Pre-brief the group:
 - a. Introduction Welcome, introductions, sign-in
 - b. Review overall format including approximate time for simulation and debrief. Remind that debrief often takes longer than scenario, but is the most important part
 - c. Confidentiality Review the steps taken to ensure the psychological safety of participants.
 - d. Engagement Recognize this is a simulated environment but try to buy-in, the more you put into it and the more you'll get out of it
- 2) **Provide Orientation** (failing to give proper orientation may set participants up for failure):
 - a. Manikin, monitors, code cart, meds & fluids, diagnostics, calling for help
 - b. Child Health BC Provincial Pediatric Sepsis Documents
 - i. Child Health BC Provincial Pediatric Sepsis Recognition and Emergency Management Guideline
 - ii. Child Health BC Provincial Pediatric Sepsis Screening Tool
 - iii. Child Health BC Pediatric Sepsis Clinical Care Algorithm
 - c. Equipment/Procedures in the case as needed do a needs assessment (i.e. How to use Broselow tape and cart, IO insertion, pediatric fluid bolus etc.)
- 3) Scenario briefing:
 - a. Review learning objectives with participants (knowledge/technical and non-technical skills)
 - b. Roles discuss roles, assign as needed

Simulation Design Notes

- Case has been written for 5 year old sized manikin. If simulation site does not have access to this type of a child sized manikin, an alternate can be used.
 - o Ensure to Broselow the manikin, and change the weight of the child (28 days 16.99 years old) in the case to be consistent with the manikin
 - O Update the vital signs to reflect shock using the <u>BC PEWS Vital Signs Reference Card</u> as a guide (Appendix C)

Case Introduction		
Parents present with their 5 year old who has been unwell for 48 hours with concerns of fever, rash, decreased intake, and drowsy.		
History		
History of Presenting Complaint	48 hours unwell	
Signs and Symptoms	Alert yesterday with decreased intake. Occasional cough. Fever x 48 hours. Vomiting but no diarrhea.	
Diet/Output	Decreased intake. Last meal – drank small amount of juice this morning. Vomiting x 4 in past 18 hrs. Decreased voiding, no voids past 6hrs. Last bowel movement last night.	
Exposure	Goes to kindergarten and after-school care, two siblings. Lives with both parents.	
Past Medical History	Normally healthy	
Medications	Acetaminophen administered orally 3 hours prior to arrival	
Allergies	No known allergies	
Immunizations	Immunizations not up-to-date due	

STAGE 1: RECOGNITION

Patient Parameters	Management	Facilitator Notes
Condition: looks unwell, difficult to rouse for	Expected Management:	Each pediatric patient should be screened for sepsis at triage
assessment.	☐ Triage appropriately- CTAS 2	or primary assessment using the CHBC Provincial Pediatric
	☐ Select appropriate CEDIS Code and	Sepsis Screening Tool or equivalent electronic health record
Triage assessment:	modifiers as appropriate – Fever; or	and BC Pediatric Early Warning System (BC PEWS) if utilized at
 Weight = 17.3kg 	Decreased LOC; Hemodynamic Stability	facility ¹
 Pediatric Assessment Triangle (PAT): 	☐ Identify PEWS score 6	
lethargic; moving chest equally,	☐ Recognize the need to screen for sepsis	When triaged and screened appropriately; the learner(s)
laboured breathing; pale.	and use the CHBC Provincial Pediatric	should identify need to rule out sepsis based on:
 Capillary refill: 3 seconds (central & 	Sepsis Screening Tool.	Parental/caregiver concern
peripheral)	☐ Identify [+] sepsis screen and urgency of	Critical heart rate of 140 bpm
• RR: 28 /min	escalating care:	 Temperature of 38.4°C is beyond the 38.0°C
 O2: 94% on room air 	☐ Child's care moved to treatment	threshold
 HR 140 bpm 	room.	Child looks unwell and is lethargic
 BP: 92/56, MAP 68 mm Hg 	☐ <u>Droplet and Contact or Airborne</u>	Suspicious rash
Temp: 38.4°C, temporal	and Contact precautions should	
Petechial rash noted on torso and	be initiated.	When the learner suspects the child has sepsis or septic shock,
legs	☐ Cardio-respiratory monitor	they immediately notify the Most Responsible Practitioner
Glucose: 4.5 mmol/L	connected.	(MRP) – ERP in this case - to assess patient and initiates

Patient Parameters	Management	Facilitator Notes
 Parents concerned about child's 	☐ ERP called to assess the child.	treatment following the CHBC Provincial Pediatric Sepsis
behavior change.		Clinical Care Algorithm
		Consequences of ineffective management:
		If the learner doesn't recognize need to rule out sepsis, child
		declines significantly. Advance to Stage 3.

STAGE 2: INITIAL MANAGEMENT, FIRST 60 MINUTES

Patient Parameters	Management	Facilitator Notes
Patient Parameters Condition: Looks unwell, somnolent. Assessment: Cardiorespiratory Monitor: Sinus tachycardia HR: 150 bpm BP: 85/50 (62) RR: 30		Vital sign deterioration can be an acute indicator for the progression to septic shock; indicates need for urgent intervention ² Identifies sepsis (suspected meningitis) Critical HR: 5 year old with HR of >140 bpm Temperature: Fever >38°C Respiratory: Resp distress
 RR: 30 SPO₂: 93% on room air T: 39.7°C, temporal CNS: Irritable when handled; Drowsy when left alone. GCS 14 (Eyes-4, Verbal-4, Motor-6). Pupils 3mm, equal and reactive. CVS: central cap refill 3-4 seconds, peripheral cap refill 4-5 sec, pulses 	Contact precautions (if not already done in recognition) Identifies sepsis Airway Ensure airway patency Ensure ability to protect airway (i.e. assess LOC)	 Respiratory. Resp distress Gastrointestinal: vomiting, reduced intake Genitourinary: reduced urine output Integumentary: rash Situational Awareness Factors: Caregiver concern, child's immunizations not up to date Further signs of septic shock: Cap refill time >2 secs Mottled skin, weak pulses
 weak peripherally, mottled Resp: laboured breathing, mild intercostal retractions, equal air entry, chest clear PEWS score: 7 Glucose: 3.4 mmol/L 	Breathing ☐ Continuous SpO2 monitoring ☐ Apply oxygen by 10-15L via non-rebreather facemask ☐ Auscultate chest	 Decreased urine output Metal status changes STAT Lab work (per Child Health BC Provincial Pediatric Sepsing Recognition and Management Guideline): Blood cultures – prioritize!

Patient Parameters	Management	Facilitator Notes
 Integumentary: Petechial rash noted on torso and legs Weight: 17.3 kg 	Circulation ☐ Continuous cardiorespiratory monitoring ☐ Check pulses, capillary refill (central and peripheral), and BP ☐ Identify lower limit of acceptable BP targets (5 th percentile SBP = 70 + (2 x age in yrs.) or 5 th percentile MAP = 40 + (1.5 x age in yrs.))	 Venous Blood Gas (including Na, K, CO2, Cl, glucose & lactate) CRP, Cr, Urea, Mg2, PO4, Ionized or Total calcium CBC and differential Urinalysis, urine culture and sensitivity via in and out catheter
	Vascular access □ attempts to insert peripheral IV x 2 unsuccessful □ Inserts IO □ NS bolus 10-20 mL/kg over 5-30mins if delayed drop BP Disability □ Determine GCS and examine pupils □ POCT glucometer 3.4- initiates maintenance fluids with dextrose Exposure □ Identify fever and treat with antipyretic □ Identify rash	 Second Line Lab work (per Child Health BC Provincial Pediatric Sepsis Recognition and Management Guideline): Blood group and screen total bilirubin, AST, ALT INR, PTT, fibrinogen Cerebrospinal Fluid (CSF) Screening (including CSF panel, fluid C&S, Virus panel-herpes/VSV/EV) – if patient stable Nasopharyngeal Flocked Swab; Respiratory Nucleic Acid Testing (NAT) panel Antibiotics: do not delay antibiotics if you cannot obtain blood work CefTRIAXone (50mg/kg/dose Max 2g) IV/IO q12h OR Cefotaxime (75mg/kg/dose Max 2g) IV/IO q6h *if cefTRIAXone not available AND Vancomycin (15mg/kg/dose, Max 1500mg) IV/IO q6h AND Acyclovir (10mg/kg/dose) IV/IO q8h
	Additional Management: ☐ Consult local pediatrician on-call; or if rural/remote CHARLIE via Zoom/phone; or higher level of care via PTN	Maintenance IV Fluids: If glucose is less than or equal to 2.6 mmol/L, give D10NS 5mL/kg rapid IV push and recheck glucose in five minutes.

Patient Parameters	Management	Facilitator Notes
ratient raidineters	 □ Orders lab work STAT (see notes column) □ Evaluate need for urgent lumbar puncture – consider risks/benefits □ Order antibiotics (see notes column) 	Initiate maintenance fluids D10NS for infants less than 10kg and D5NS for children greater than 10kg. Recheck glucose in an hour ²
	 □ Portable Chest X-Ray □ Electrocardiogram 12 Lead □ Echocardiogram □ Consider urinary catheter □ Start D5NS IV/IO maintenance fluids (4,2,1 rule) 	Consequences of ineffective management: O ₂ saturations drop if no oxygen. BP drops if bolus is missed or delayed.

STAGE 3: DETERIORATION - worsening of septic shock; no response to fluids, no evidence of fluid overload

Patient Parameters	Management	Facilitator Notes
Patient Parameters Time representation 20-30 minutes – may move quicker in simulation Condition: Drowsy and difficult to rouse for assessment. • HR: 156, sinus tachycardia • BP: 72/35 • RR: 42 • SP0 ₂ : 95% with oxygen	Management Patient Reassessment Airway ☐ Recognize the potential need to protect airway given declining LOC ☐ Assign someone to attend to the airway ☐ Prepare airway adjuncts ☐ Has suction nearby Breathing ☐ Reassess SPO ₂ and RR and effectiveness	Facilitator Notes Consult PICU via PTN when child not responding to 40ml/kg bolus NOTE: If acting as PICU consultant in scenario, do the following: Ask for status of child Indicate need to give 3 rd bolus Advise to prepare Epinephrine infusion (to start at 0.05 mcg/kg/min; titrate up by 0.02 mcg/kg/min, MAX 1mcg/kg/min) IV/IO
 T: 39.7°C CNS: drowsy, difficult to rouse, GCS 13 (Eyes-4, Verbal-4, Motor-5), is 	of respirations Auscultate chest for signs of crackles from bolus	 Advise if symptoms of shock remain after 3rd bolus to start Epi infusion
protecting airway	☐ Prepare bag mask ventilation	Consequences of ineffective management: Continue to drop blood pressure if no further fluid bolus
	<u>Circulation</u>	and/or escalation for further advice.

Patient Parameters	Management	Facilitator Notes
 CVS: central cap refill 4 secs, peripheral cap refill 5 secs, pulses weak Resp: less laboured breathing, chest clear GI: liver not enlarged PEWS score: 8 Glucose: 3.4 mmol/L Integ: Rash unchanged Rest of exam normal 	 □ Reassess HR, BP, Cap refill □ Identify hypotension and shock □ Assess for hepatomegaly from bolus □ NS fluid bolus 10-20 mL/kg over 5-30 minutes (bolus #) □ Starts D5NS IV/IO maintenance fluids (4,2,1 rule) □ Disability □ Reassess GCS 	
	Additional Management ☐ Call PTN for transport and ask to speak with the PICU consultant ☐ Obtain further fluid resuscitation and inotrope strategy from physician or consultation	

Stage 4: DETERIORATION

CONTINUED - further

worsening of septic shock; still no response to fluids, evidence of fluid overload

Patient Parameters	Management	Facilitator Notes
Time representation 30-40 minutes – may	Patient Reassessment	Epinephrine Infusion is indicated at this stage given ongoing
move quicker in simulation	<u>Airway</u>	hypotension and evidence of fluid overload:
	☐ Maintain the airway, has suction nearby	Epinephrine 0.05mcg/kg/min IV/IO
Condition: Drowsy and difficult to rouse for	☐ Airway adjuncts prepared if not yet done	(Can titrate up by 0.02mcg/kg/min MAX 1mcg/kg/min)
assessment		
HR: 158, sinus tachycardia	Breathing	Fluid should be titrated to clinical response while continually
• BP : 71/33	☐ Reassess SPO₂ and RR and effectiveness	monitoring for signs of fluid overload.
• RR: 40	of respirations	
SP02: 95% with oxygen	☐ Auscultate chest for signs of crackles	A max of 60ml/kg within the first hour can be provided if no
CNS: drowsy difficult to rouse, GCS	from boluses	signs of fluid overload.
12 (Eyes-3, Verbal-4, Motor-5)	☐ Identify fluid-overload	
CVS: central cap refill 4 secs,	☐ Bag mask ventilation ready	
peripheral cap refill 5 secs, pulses		Consequences of ineffective management:
weak	Circulation	If epinephrine not started, continued decline in BP and
 Resp: coarse crackles at bases 	☐ Reassess HR, BP, Cap refill	progressive respiratory distress (from fluid overload).
GI: liver not enlarged	☐ Identify hypotension and shock	If proceed to intubation without epinephrine infusion started,
PEWS Score: 8	☐ Assess for hepatomegaly from boluses	patient goes into cardiac arrest with induction.
• Glucose: 5.5	☐ Recognize fluid boluses no longer	
 Integ: Rash unchanged 	indicated, start inotrope	
Rest of exam normal		
	Additional Management	
	☐ Obtain further fluid resuscitation and	
	inotrope strategy from physician or	
	consultation	
	☐ Prepares for Epinephrine infusion (see	
	notes column)	

STAGE 5: IMPROVING

CONDITION with Epinephrine Infusion (final stage)

Case ends either: A) once learners recognize need to titrate epinephrine to effect OR B) intubates patient (choice dependent on team's learning needs)

Patient Parameters	Management	Facilitator Notes	
Time representation 10-15 minutes – may	A)	Epinephrine Infusion	
move quicker in simulation	☐ Recognize improvement in shock, but not	Epinephrine starts 0.05mcg/kg/min IV/IO,	
	resolved.	titrate up by 0.02mcg/kg/min q5-10min to MAX 1mcg/kg/min	
Condition: Drowsy but able to arouse	☐ Establish BP targets (SBP or MAP)		
 HR: 158, sinus tachycardia 	☐ Titrates epinephrine by 0.02mcg/kg/min		
■ BP: 80/31 (47)	to goal	Intubation:	
• RR: 35		Recommend use/establish institution specific pre-intubation	
 SP02: 95% with oxygen 	B)	checklist.	
 CNS: drowsy but able to arouse, GCS 	☐ Establish BP targets (SBP or MAP)	Induction agents: Ketamine 0.5mg/kg + Rocuronium 1mg/kg.	
12 (Eyes-3, Verbal-4, Motor-5)	☐ Titrates epinephrine by 0.02mcg/kg/min	Use cuffed ETT.	
 CVS: central cap refill 4 secs, 	to goal		
peripheral cap refill 4 secs, pulses	☐ Recognize improvement in shock, but not		
stronger than previous	resolved.		
Resp: chest clear	☐ Consider role of intubation and		
PEWS Score: 6	ventilation the management of shock		
■ Glucose: 6.0	☐ Discusses with Intensivist considerations		
Rest of exam normal	of:		
	 Intubation 		
	 Addition of second inotrope 		
	 Use of steroid (refractory 	Steroid recommendation:	
	hypotension for select	Hydrocortisone 50mg IV	
	populations)	Hydrocortisone Joing IV	
	☐ Prepare for intubation		
	☐ Intubate patient with appropriately sized		
	ETT		
	☐ Establish ventilation targets		
	☐ Transfer to higher level of care		

Facilitator Debrief Guide: Facilitate a conversation with the group following the BC Hot Debriefing Guide (Appendix D) which can be downloaded from the BC Simulation Network Simulation Resources Page S **Summarize the Case** Example Question: "Can someone summarize the case?" Т Things that went well Example Question: "What did you think you did well?" Review: Did we accomplish the Learning Objectives? Knowledge: ☐ Discuss and demonstrate recognition of pediatric sepsis and illness severity ☐ Demonstrate understanding of when to engage specialist support, and consideration of transfer to higher level of care Technical Skills: ☐ Recognition of sepsis and illness severity utilizing BC PEWS (Pediatric Early Warning System) ☐ Demonstrate basic management of sepsis ☐ Demonstrate use of Child Health BC Provincial Pediatric Sepsis Screening and Management for Emergent/Urgent Care Settings Guideline ☐ Demonstrate resuscitation skills Non-technical Skills: ☐ Demonstrate team skills ☐ Demonstrate crisis resource management and critical thinking ☐ Demonstrate seeking timely support from regional and provincial resources 0 **Opportunities to Improve** Example Question: "What would you change next time?" **KEY DEBRIEF POINTS:** • Early identification and initial management of pediatric sepsis is crucial o If sepsis is not recognized early and managed promptly, it can lead to septic shock, sepsis associated organ dysfunction and death³ Rapid delivery of basic interventions (i.e. first hour antibiotics and IV fluids) increases survival rates by up to 50% • Engage local pediatrician on-call through local operator/on call system; or rural/remote sites can contact CHARLiE via Zoom at charlie1@rccbc.ca or phone (236)305-5352 early² • Early escalation to pediatric critical care onsite or via contacting Patient Transfer Network (PTN) by phone 1(866)233-2337 is essential^{2,4} In children with sepsis or septic shock intervention should not be delayed DESPITE blood pressure being within normal range. Hypotension is a late sign of sepsis in a child and indicates that compensatory mechanisms such as tachycardia and vasoconstriction have failed²

	 Do not delay antimicrobials. Antimicrobials are the primary medical therapy that directly targets the underlying cause of sepsis. There is strong biologic rationale for rapid intervention with administration of antimicrobials, ideally within 60 minutes of presentation, in pediatric patients with sepsis⁵ It is ideal to obtain blood samples before antimicrobial administration, but antimicrobials must not be delayed due to difficulties obtaining venous access (IV); intraosseous (IO) or intramuscular (IM) administration should be considered if access is delayed Excessive fluid resuscitation can be harmful. NOTE: This is a change from previous fluid management guidance for pediatric sepsis Reassessment after each fluid bolus is key. Fluid should be titrated to clinical response while continually monitoring for signs of fluid overload (i.e., increased work of breathing, crackles on auscultation, hepatomegaly)^{3,6} Normalization of vital signs include: cap refill <2 secs, normalized peripheral pulse strength, warm extremities, urine output >1 mL/kg/h, normal mental status, normal BP for age, and normal glucose concentration Lack of response to 40mg/kg bolus and consideration of Inotrope infusion should be discussed with PICU via PTN 				
	Maintenance fluids should have dextrose				
	 Children >28 days should have 5% dextrose solution at maintenance IV rate to prevent hypoglycemia 				
Р	Points of Action				
	Example Question: "What additional support or resources do you need to be able to incorporate what you have learned today into your practice?"				

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Child Health BC Provincial Pediatric Sepsis Recognition and Management Guideline.

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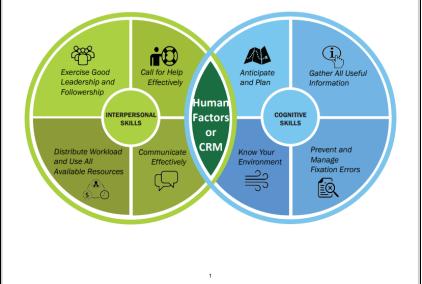
Network's Crisis Resource Management Reference (CRM model v9)

Crisis Resource Management (CRM)

Human Factors also called non-technical skills or Crisis Resource Management (CRM) refers to the cognitive and interpersonal skills required for effective teamwork and optimal use of all available resources in a routine or crisis situation.

- . Cognitive skills are defined as the mental processes used for gaining and maintaining situational awareness, problem solving and decision making.
- Interpersonal skills are the behavioural activities associated with teamwork such as communication and team functioning.

A number of CRM skills critical to the effective and efficient team have been described and these can be improved by study and practice. The CRM Key Principles model (see below) is one such example. It must be emphasized that no one key principle sits in isolation from the others but rather they are all interrelated and there are overlaps.



Crisis Resource Management (CRM)

Example characteristics of each CRM key principle are shown below:

Interpersonal Skills

Call for Help Effectively

- . Develop and use predefined criteria for asking for help . Be aware of barriers to asking for help
- e.g concern about criticism
- · Request extra support personnel and/or equipment when appropriate
- · Request specific knowledge or skills when appropriate
- · Use structured communication
- · Call early

Exercise Good Leadership and Followership

- · Make decisions, clarify rationale
- . Steps back (when possible) to monitor environment
- and coordinate activities . Establish shared mental model and common goal with the team
- · Prioritize and distribute tasks
- · Establish performance expectations
- Listens to/requests input from the team
- · Be assertive, not aggressive or submissive
- · Re-evaluate regularly and keep team informed with periodic briefings

Distribute Workload and Use All Available Resources · Prioritize requests

- Assign and/or reallocate tasks according to the
- capabilities of the team
- . Ensure role clarity with any role changes announced to the team
- · Limit requests to those that are essential
- · Uses all available team members
- . Clarify what your are doing
- · Clarify any uncertainty . Be aware of self-limitations
- · Keeping team informed and share ideas

Communicate Effectively 🦃

- . Closed loop communication avoid "thin air" statement
- · Speaks loudly/clearly
- · Listen actively and provide information when asked
- · Use structured communication techniques, e.g. Briefings, SBAR
- . Use standard terminology when communicating information
- · Request and provide clarification when needed
- · Eliminate or reduce distractions . Address people directly - make eye contact and use
- names +/- designation
- . Inform the appropriate individuals and all team members when plans change
- · Pay attention to and use nonverbal communication appropriately

Cognitive Skills

Anticipate and Plan

- . Think ahead: Identify options and set goals
- · Share plan/mental model
- · Incorporates knowledge into specific preparation
- · Considers risks/prepares options for failure: Plan A, Plan B. Plan C
- · Allows buffer e.g. time, resources, staff
- · Adapts priority to account for changing conditions

Know Your Environment

- Ask/seek information
- . Know where equipment is and how it works
- · Aware of barriers in the area
- . Knows team members and their skills/Role
- clarification: encourage introductions Optimises environment relevant to the situation
- · Knows where cognitive aids are kept

Gather all Useful Information



- · Use cognitive aids e.g. check list
- · Request input/share information
- · Pay attention to alarms/monitors
- . Regular re-evaluation of patient and situation
- · Review responses to treatment and reassess

Prevent and Manage Fixation Errors



- · Shares mental model
- · Avoid task fixation · Deliberately change perspective (physical or mental)
- · Looks for contradictions
- · Asks team members for input
- Summarize often

Taken from e-module: Principles of Crisis Resource Management accessed at: - https://learninghub.phsa.ca/Courses/16361/crisis-resource-management - https://bcsimulation.ca/resources/curriculum/

Appendix and Women's brief Checklist



Simulation Pre-brief Checklist



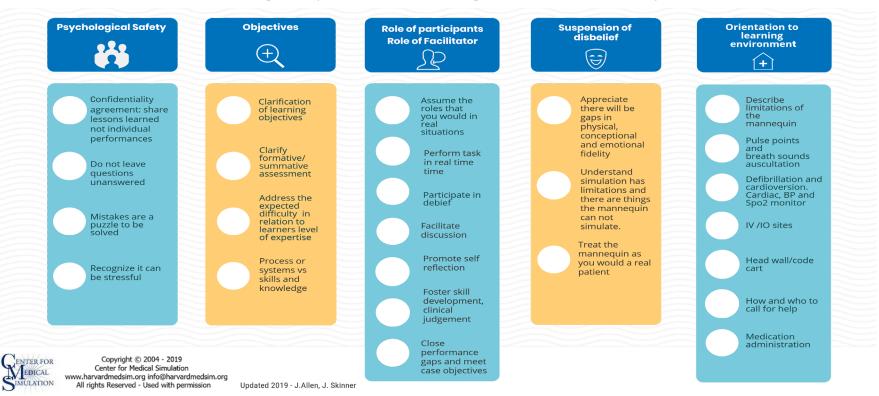
Simulation aims to prepare HCP to provide the best quality care for patient safety by practicing in an interprofessional and safe learning environment with a focus on human factors and team performance.



BC WOMEN'S HOSPITAL+ HEALTH CENTRE

Welcome and Introductions

Basic Assumption Statement: We believe that everyone participating in activities at BCCH and BCWH is intelligent, capable, cares about doing their best and wants to improve. ©



Appendix C: CHBC BC PEWS Vital Signs Reference Card

BC PEWS Vital Signs Reference Card

Age	Heart Rate Beats per minute	Respiratory Rate Breaths per minute	Systolic / Diastolic BP	MAP mmHg	
0 – 28 days*	104 – 162	31 – 60	60 – 80 / 30 – 53	40 or higher	
1 – 3 months*	104 – 162	31 – 60	73 – 105 / 36 – 68	48 or higher	
4 – 11 months*	109 – 159	29 – 53	82 – 105 / 46 – 68	58 – 80	
1 – 3 years†	89 – 139	25 – 39	85 – 109 / 37 – 67	53 – 81	
4 – 6 years†	71 – 128	17 – 31	91 – 114 / 50 – 74	63 – 87	
7 – 11 years†	60 – 114	15 – 28	96 – 121 / 57 – 80	70 – 94	
12 plus years†	50 – 104	12 – 25	105-136/62-87	76 – 103	
Temperature °C	Oral: 35.5 – 37.5, Axilla: 36.5 – 37.5, Rectal: 36.6 – 38.0, Temporal: 36.3 – 37.8				

HR and RR ranges: CTAS 2013 Temperature ranges: CPS 2015

BP ranges: *Modified from American Heart Association (2012). *Pediatric emergency assessment, recognition, and stabilization (PEARS) provider manual.*† National Heart, Lung and Blood Pressure Institute (2004). The fourth report on the diagnosis, evaluation, and treatment of high blood pressure in children and adolescents. *Pediatrics, 114(2),* 555-556.



Appendix D: BC Simulation Network Hot Debriefing Guide

HOT DEBRIEFING GUIDE

This guide provides a standardized approach to post-event clinical debriefing. These conversations are to be facilitated as soon as possible after an event with a target duration of 10 to 15 minutes.

These conversations are not to assess or evaluate personal performance and they do not replace other processes associated with critical events such as PSLS reporting, accessing employee assistance programs, or formal critical incident stress debriefings.

"Thank you for taking the time to gather and discuss this event. We believe this team is capable, has done their best, and is seeking to improve. We have not gathered to assess or evaluate personal performance. As points of action items are raised, lets be sure to note them. For this debriefing, we will use the STOP format."









Summarize The Case

Things That Went Well

Opportunities To Improve

Points Of Action

"Before we end this debriefing if anyone has any last remarks please share them. As appropriate and with respect and confidentiality, these findings will be shared with our leadership team.

We will follow up on these items.

Thank you again for joining us. Please continue to take care of yourselves and each other. Thank you for the work that you do."

Created by CICSL and members of BC Simulation Network and BC Emergency Medicine Network. Available for download at:



HOT DEBRIEFING GUIDE

Recent literature supports performance-focused post event clinical debriefings facilitated by healthcare professionals familiar with established debriefing processes. Like other aspects in health care, bringing hot debriefing to clinical settings invites careful implementation considerations.

Considerations for Introduction:

- Consider introducing this guide in advance of initial debriefings.
- Orientate your debriefers and your teams.
- Appreciate the impact of local culture and psychological safety.

Considerations for During:

- · Affirm that participation is voluntary and not compulsory.
- · Embrace a growth mindset, and a commitment to improvement.
- Learn from success and minimize hindsight bias.





Considerations for After:

- · Assign findings to individuals for meaningful clinical improvement.
- Provide debriefers with ways to improve their facilitation skills.
- · Provide resources for those who may benefit from further psychological support.

Further supports can be obtained through Health Authority Employee & Family Assistance Programs:

- Northern Health: 1-844-880-9142
- Interior Health: 1-844-751-2133
- Fraser Health: 1 844 880 9142

- Vancouver Coastal: 1-800-505-4929
- Island Health: 1-800-663-1142 • Providence: 1-800-663-1142
- Provincial [PHSA]: 1-800-663-1142
- First Nations: 1-855-242-3310

Physician Health Program 1-800-663-6729

Contact your manager/site leader to request a formal critical incident debriefing.