

Prep for Pediatric Sepsis Escape Room

- Pediatric Manikin, with a gown or appropriate clothes
- Bedside monitor
- BP cuff (appropriately sized), pulse oximeter probe, ECG leads
- Bedside commode with specimen cups of tea or coffee to indicate varying degrees of concentration
- IV catheter/fluids/tubing/pump
- PEWS chart and algorithm
- UCHHealth North Pediatric Sepsis algorithm
- Operation game
- Two tri fold boards, one for vital signs, one for sepsis pathophysiology
- One board (for Escape Room Exit)
- Velcro for vital sign board and cards, sepsis pathophysiology, and pictures for escape room sign
- Envelopes
 - Blue box: 3 envelopes
- Pouches
 - Red
 - Blue
 - Green
 - Orange (BB-8)
 - Black
 - Rainbow
- Laminated sheets
 - PEWS chart and algorithm
 - UCHHealth North Pediatric Sepsis algorithm
 - Rules of Escape Room
 - RN report
 - NA report
 - Vital sign cards
 - Blue key with code 005
 - Care options for blue box, laminate each (3) separately
 - Question 1 and 2 to open red pouch locks
 - Cards in red pouch + four (4) vital sign folders
 - Which urine do you report to RN?
 - Stickers on bottom of specimen cups
 - Sepsis pathology words
 - Card in blue pouch
 - Purple key 237
 - NoCo Peds IP sepsis stat order set, pink box
 - Card in green pouch
 - Card with True False questions in Silver box
 - Card + antibiotic choices in Orange pouch
 - Card Facilitator hands to RN
 - Paper clue in operation game
 - Clue after Jenga
 - Pictures (5): Transfer PICU
- Boxes with locks
 - Blue: 005
 - Pink: 237
 - Silver: 516
- Locks
 - Red pouch (2): CBCLA and 245
 - Blue pouch: PERKY
 - Green pouch: 13XTS
 - Orange (BB-8) pouch: FTTTT
 - Black pouch: Has a key
 - Rainbow pouch: SPEED

Escape Room

Vital Signs

ABNORMAL

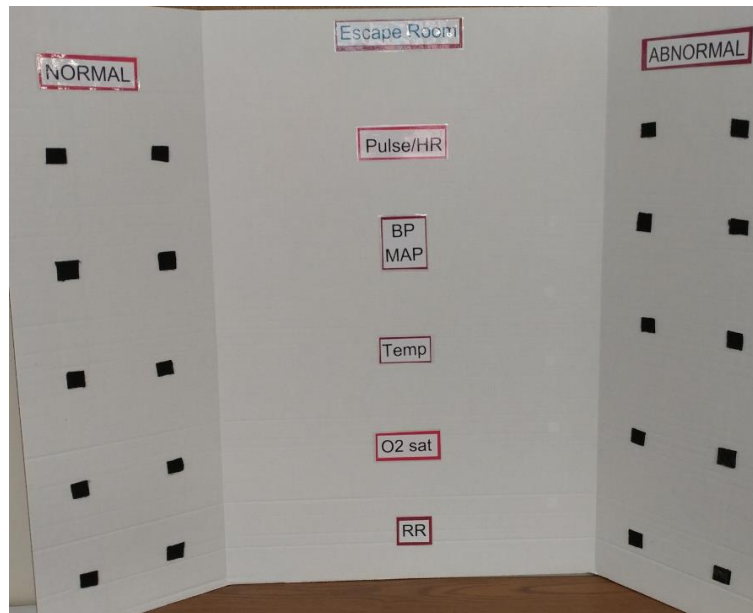
NORMAL

Pulse/HR

BP

MAP

Temp
RR
O2 sat



138 Pulse/HR

Report

86/48 BP

(61) MAP

To

101.4 Temp

RN

50 RR

NA/Tech

92% O2 sat

MD



142 Pulse/HR

82/42 BP

(55) MAP

52 RR

102.1 Temp

92% O2 sat



142 Pulse/HR

79/41 BP

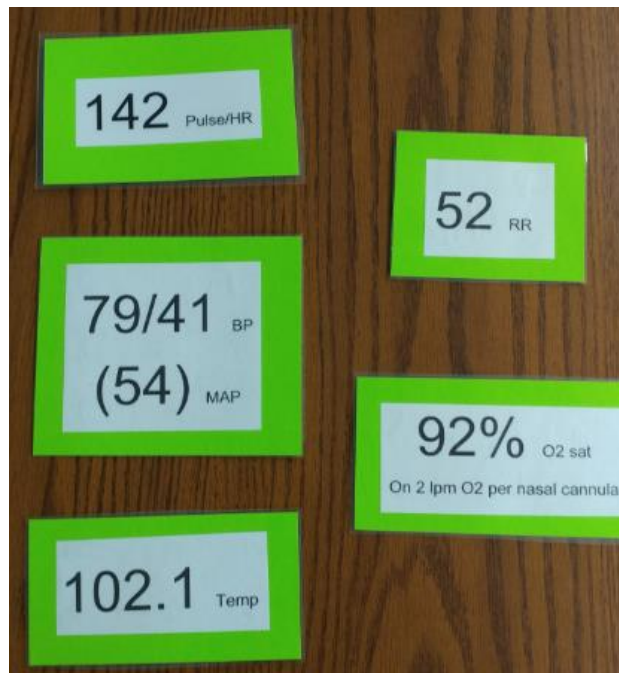
(54) MAP

52 RR

102.1 Temp

92% O2 sat

On 2 LPM O2 per nasal cannula



Overview for Facilitator:

**Deteriorating Patient: Pediatric Escape Room
RNs and NAs**

Case Scenario:

Our patient is Liam, an 8-year-old admitted for cough, sore throat, and fever; admitted directly from provider’s office. Liam’s Dad reports Liam has been sick for the last 3 days and they had given Liam Tylenol at home 2 hours ago. Mom is at home with Liam’s 6-year-old brother and 4-year-old sister, both are also sick with the same symptoms but are still eating, drinking and playing.

Liam has been on the unit for 30 minutes when you are getting report.

Initial Vital Signs:

Rhythm	HR	BP
Sinus Tachycardia	138	86/48 (61)
RR	SpO2	Temp
50	92% on RA	101.4

Behavior: States he is tired and just wants to sleep.

Auscultation: Crackles lower lobes bilaterally, diminished in left lower lobe.

Assessment: Color is pale, capillary refill is greater than 3 seconds, skin is cool and mottled. Liam has subcostal retractions. When you ask him how he is feeling, he states he hurts all over.
Weight: 25.8 kg

RNs: After NA gives you report, assign a PEWS score for your patient. Use the blue key to open the blue box so you can start treatment and care for your patient.

Start of Escape Room—have someone read out loud rules of escape room: (Print and laminate)

Rules of Escape Room

Welcome!

- You have 40 minutes to escape.
- If you need to exit the room at any time, please feel free. However, the clock will not stop.
- When you unlock an item, please leave the lock by the item.
- There will be a moderator present to help guide you along, in case you get stuck. Moderator will only be offering simple clues.
- Please do not force items open. If it is supposed to come off or unlock, it will. If you try to force anything, you will break it.
- Read through all the instructions on folders, bags, etc. first. Do not try to unzip or open something before reading instructions, answering the question or unlocking it first—**doing so will result in a 2-minute penalty.**
- Ask yourself, how fast can I complete the room by following all the appropriate steps? Do not skip over steps in order to breakout faster, it will not help or work.
- Read information out loud so all can hear; work as a team to problem solve—delegate appropriately.
- Everything you need you will find in the room.
- No Cell Phones!
- Once you complete the escape room, do not share with your colleagues on the unit. The winning team will get a prize.
- Good Luck and Have FUN!!!

Give “Reports” to RNs and NA(s); RN report includes PEWS chart/algorithm and Inpatient Sepsis Algorithm: **(Print and laminate)**

RN Report

Our patient is Liam, an 8-year-old admitted for cough, sore throat, and fever; admitted directly from provider's office. Liam's Dad reports Liam has been sick for the last 3 days and they had given Liam Tylenol at home 2 hours ago. Mom is at home with Liam's 6-year-old brother and 4-year-old sister, both are also sick with the same symptoms but are still eating, drinking and playing.

Liam has been on the unit for 30 minutes when you are getting report.

Behavior: States he is tired and just wants to sleep.

Auscultation: Crackles lower lobes bilaterally, diminished in left lower lobe.

Assessment: Color is pale, capillary refill is greater than 3 seconds, skin is cool and mottled. Liam has subcostal retractions. When you ask him how he is feeling, he states he hurts all over. Weight: 25.8 kg

RNs: After NA gives you report, assign a PEWS score for your patient. Use the blue key to open the blue box so you can start treatment and care for your patient.

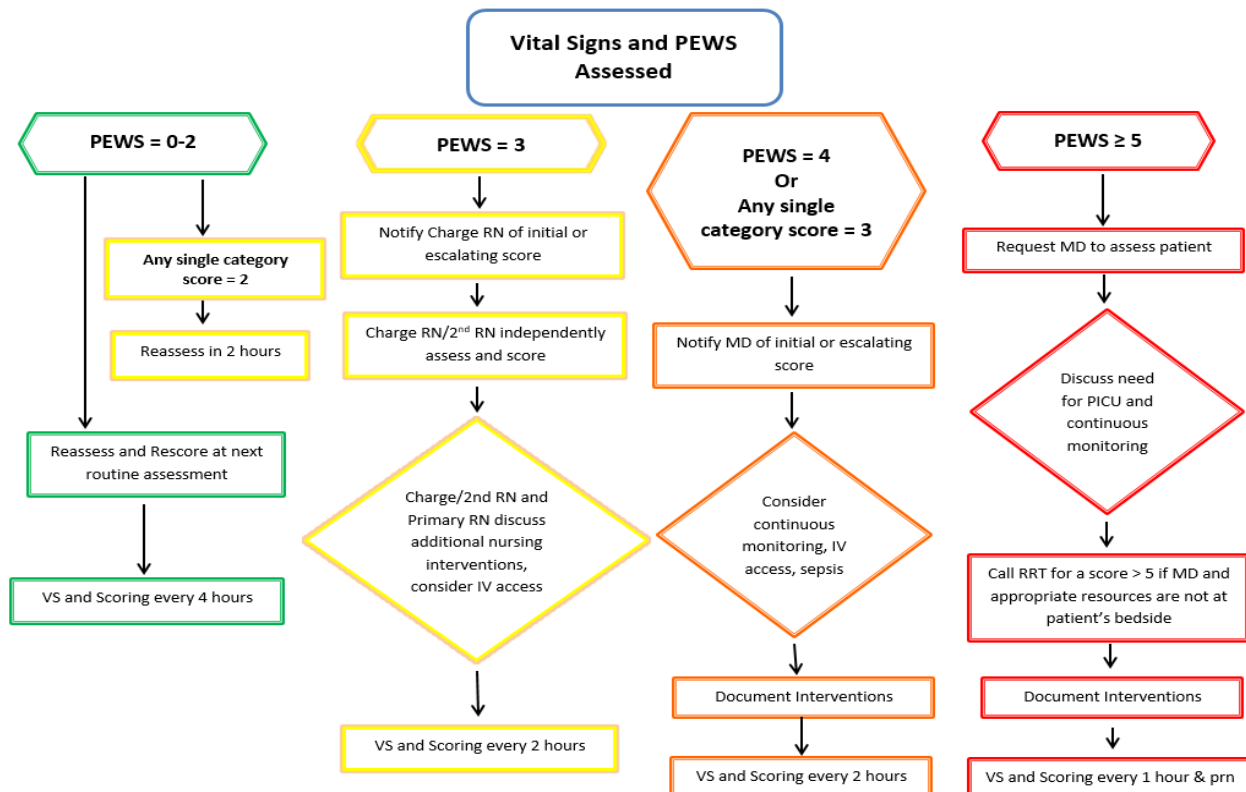
Pediatric Early Warning Score (PEWS)

Parental concern should be an automatic consult with Physician/Charge RN

	0	1	2	3	Score
BEHAVIOR	<ul style="list-style-type: none"> Active/Alert Appropriate/at baseline Sleeping/easily arousable 	<ul style="list-style-type: none"> Sleepy Fussy but consolable 	<ul style="list-style-type: none"> Irritable Inconsolable Agitated, anxious 	<ul style="list-style-type: none"> Lethargic Confused Reduced response to pain 	
CARDIOVASCULAR	<ul style="list-style-type: none"> Pink Cap Refill 1-2 sec HR normal for age 	<ul style="list-style-type: none"> Pale Cap Refill 3 sec 	<ul style="list-style-type: none"> Grey Cap Refill 4 sec Tachycardia of 20 above normal rate 	<ul style="list-style-type: none"> Mottled Cap Refill 5 sec or greater Tachycardia of 30 above normal rate, or bradycardia 	
RESPIRATORY	<ul style="list-style-type: none"> RR normal for age No retractions/stridor 	<ul style="list-style-type: none"> RR>10 above normal parameters Use of accessory muscles 30+% FiO2 3+ Liters/minute 	<ul style="list-style-type: none"> RR>20 above normal parameters Retractions 40+% FiO2 6+ Liters/minute Ventilator dependent 	<ul style="list-style-type: none"> RR below normal parameters with retractions Grunting 50% FiO2 8+ Liters/minute Continuous nebs 	

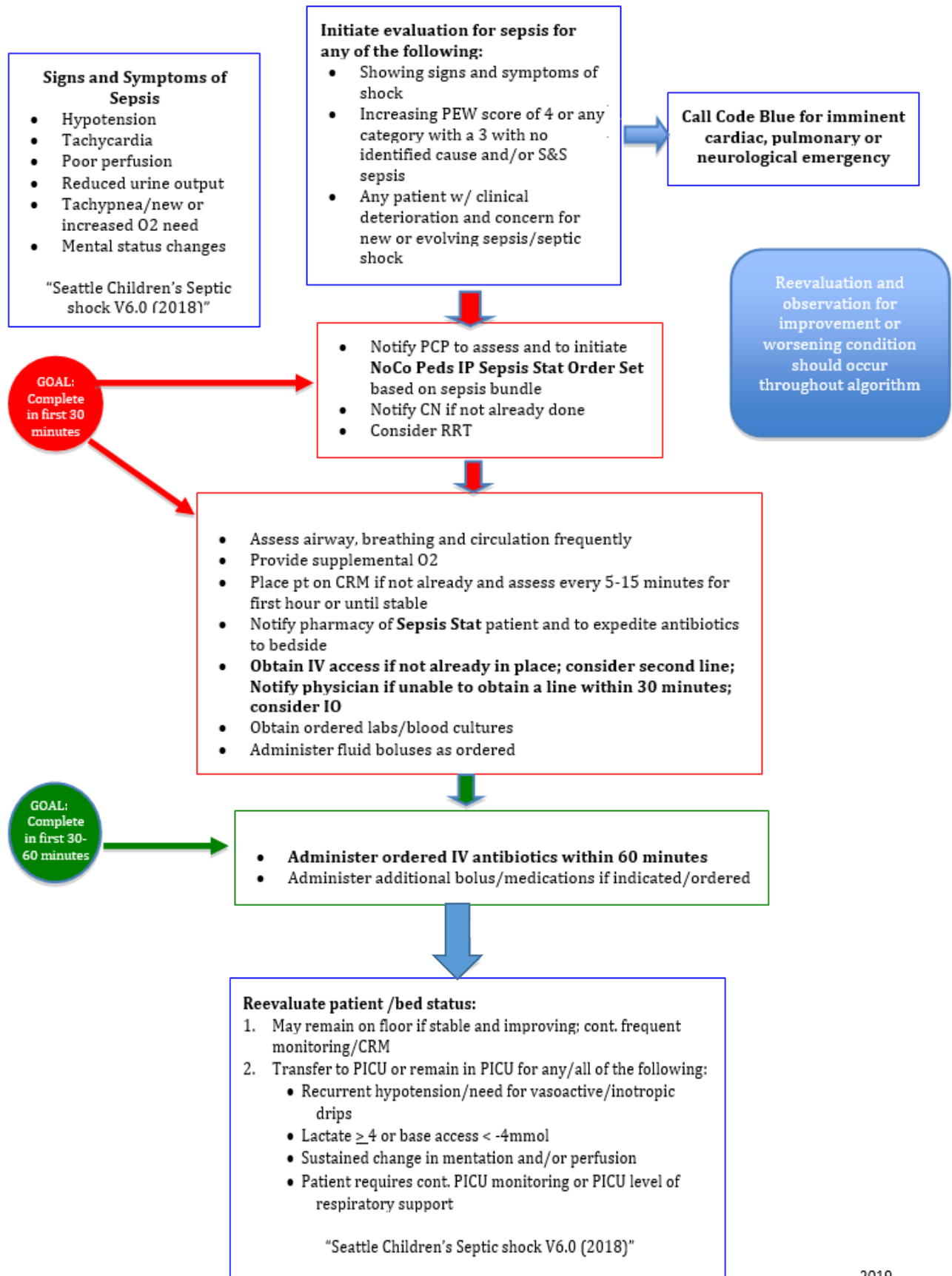
PALS VS Ranges	0 – 1 month	1 month – 1 yr	1-3 yrs	4-5 yrs	6-12 yrs	13-17 yrs
Heart Rate						
Awake,	100-205,	100-180,	98-140,	80-120,	75-118,	60-100,
Asleep	90-160	90-160	80-120	65-100	58-90	50-90
Respiratory Rate	30-53	30-53	22-37	20-28	18-25	12-20

4/8/19



4/8/19

INPATIENT PEDIATRIC SEPTIC SHOCK



2019

Nursing Assistant Report

Our patient is Liam, an 8-year-old admitted for cough, sore throat, and fever; admitted directly from provider's office. Liam's Dad reports Liam has been sick for the last 3 days. Mom is at home with Liam's 6-year-old brother and 4-year-old sister, both are also sick with the same symptoms but are still eating, drinking and playing.

Liam has been on the unit for 30 minutes when you are getting report.

The nurse asks you to get a set of vital signs for Liam. Once you get your vital signs, place them in the column on the board that states "Abnormal" and "Normal". When the vital signs are lined up correctly, a clue will be revealed telling you what to do next.

Did you know...?

- Sepsis survivors who were in intensive care are 33 x more likely to develop a cognitive impairment.
- AT UCHHealth, sepsis makes up only 7% of all diagnoses but 34% of all mortalities.
- 80% of sepsis patients are admitted through the ED.
- The 5th percentile BP for Pediatric patients' age 1-10 years is calculated by the formula: $70 + 2 \times (\text{age in years})$.
- Sepsis mortality increases by 8% for every hour delay in antibiotic administration.

These facts might help your team later in the game.

Facilitator:

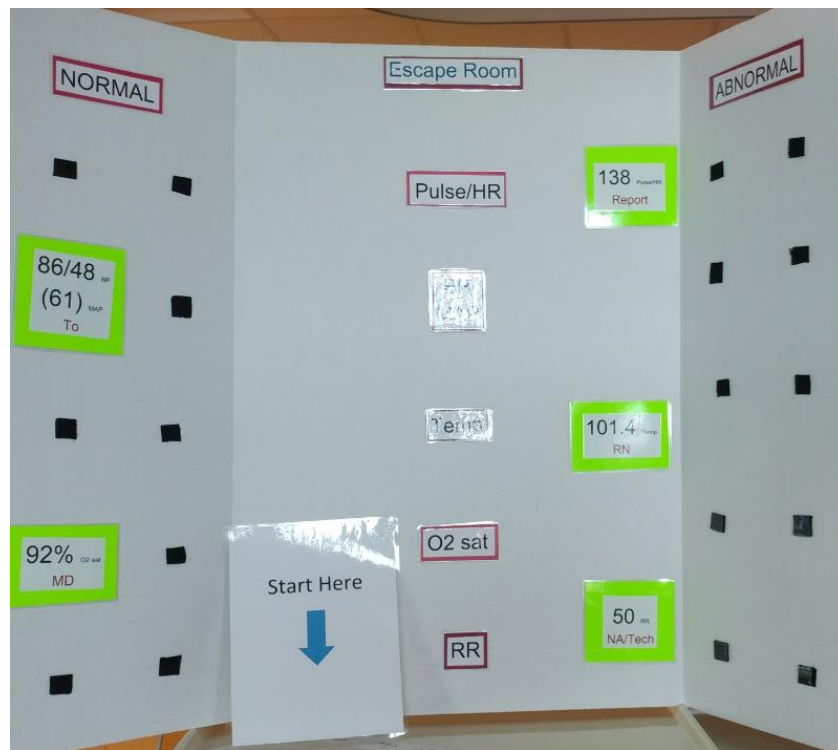
Scenario begins with NA getting vital signs on the patient (vital signs are on cards with Velcro), then matching the vital signs to normal/abnormal vital signs on a poster. A code (Report to RN) is revealed when they line up the vital signs correctly, NA gives report to RN.



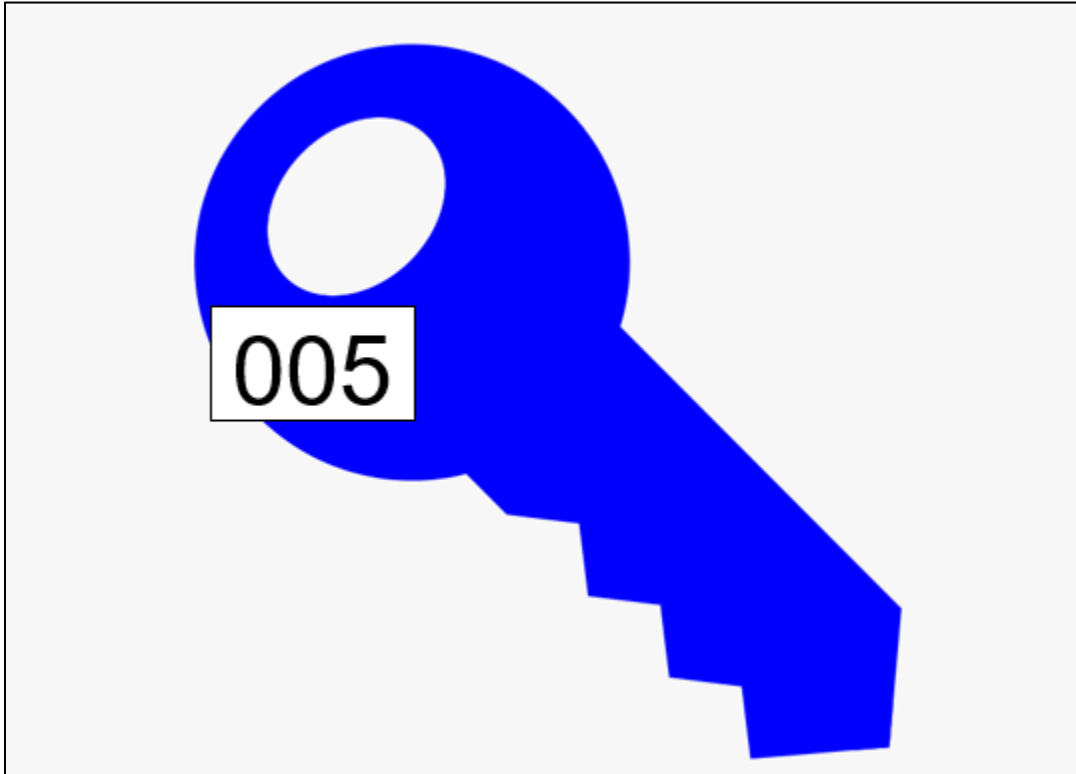
OR



(Our patient for this scenario is an 8-year-old boy, so used a Teddy Bear for size but could adapt scenario for a smaller patient 😊.)



Code on blue key for **BLUE Box: 005**—Facilitator hands RN blue key after they assign patient a PEWS score of “5”.



Blue Box:



Have three (3) envelopes with options of what they want to do next.

BLUE Box Care Options: Print, laminate, and place one option on the front of each envelope, placing corresponding answers inside each envelope.

1. Assess patient, verify allergies, and encourage him to cough and deep breathe. Have NA take every 2 hour vital signs. Pediatrician will be rounding soon; RN can bring up concerns with provider then.

Incorrect, try again!

2. Assess patient, verify allergies, and encourage him to cough and deep breathe. Start IV, call PCP for concerns of tachycardia, tachypnea, and fever. Consider RRT.

Correct, facilitator will hand you the next clue—will help you open the **RED pouch!**

3. Assess patient, verify allergies, and encourage him to cough and deep breathe. Call Respiratory Therapy to come and give a treatment.

Incorrect, try again!

The correct envelop is # 2.

Facilitator Handout: (Print and laminate card/questions.) Hand to participants when Care Option #2 from **BLUE Box** is chosen, opens **RED POUCH** (which has two locks, one lock for each of the following questions).

Codes for locks from questions: 1. **CBCLA** (CBC/Lactate) 2. **245**

Question #1:

Find clues when collecting these two: The higher one is the sicker Liam will be; extremes of the other show something is brewing.

What are two STAT labs that should be ordered on your patient?

Question #2:

What are three priorities to be completed within the first 30 minutes of the Peds IP Sepsis Stat Order Set being initiated?

1. Obtain chest x-ray
2. Obtain labs with IV start(s) if possible, then give fluid bolus'
3. Call Sepsis Coordinator
4. Notify pharmacy of Sepsis Stat patient
5. Place patient on CRM and supplemental O2
6. Inform Respiratory Therapist (RT)
7. Call Mom to update her

RED POUCH:



Contents (two Cards) of RED pouch: Print and laminate the two cards (directions in red boxes). **Also print and laminate labels for outside the folders** (HR, Blood pressure, Temperature, O2 sat) **and the answer codes for inside the folders** (BRADY, PERKY, SIREN, PRESS).

Provider arrives, assesses patient and agrees with concern about sepsis. Provider orders a CBC, Lactate, CMP, blood cultures, bedside POCT glucose; RT was able to run labs on the iSTAT from blood we obtained from a finger stick (unable to get labs with IV start).

WBC: 26.8

Lactate: 4.1

Bedside POCT glucose: 100



Heart Rate (Outside of folder)

BRADY (Inside of folder)

Temperature (Outside of folder)

SIREN (Inside of folder)

O2 Sat (Outside of folder)

PRESS (Inside of folder)

Blood Pressure (Outside of folder)

PERKY (Inside of folder)

Facilitator states:

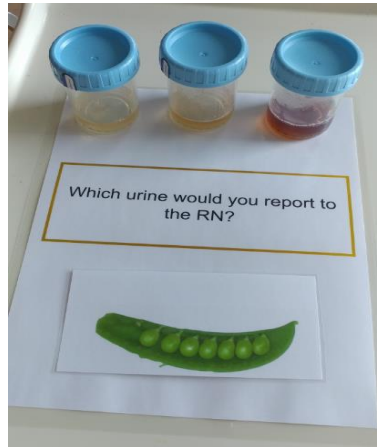
“Dad said Liam used the urinal a few minutes ago”.

RN delegates to NA to check urine and vital signs

Have tea or coffee as “urine” in specimen cups in the commode with a piece of paper on top that states “Which urine would you report to the RN?” **(Print and laminate this question.)**

Which urine would you report to the RN?

A sticker on the bottom of the one of specimen cups states “Get another set of vital signs” on the reportable urine. The stickers under the other two specimen cups state “+ 2 minutes”, adding a 2-minute penalty to the group’s completed time.



“Pea” card placed with “urine”, 1st **picture to collect** in the escape room—all the pictures (there are five (5) total) when put together solves the last puzzle to “exit the room”. **(Print and laminate this picture.)**



Stickers for bottom of the cups (3): Mix coffee or tea to varying degrees of darkness—darkest one is the correct one, guides NA to get another set of vital signs:

**Get another set
of vital signs**

+2 minutes

+2 minutes



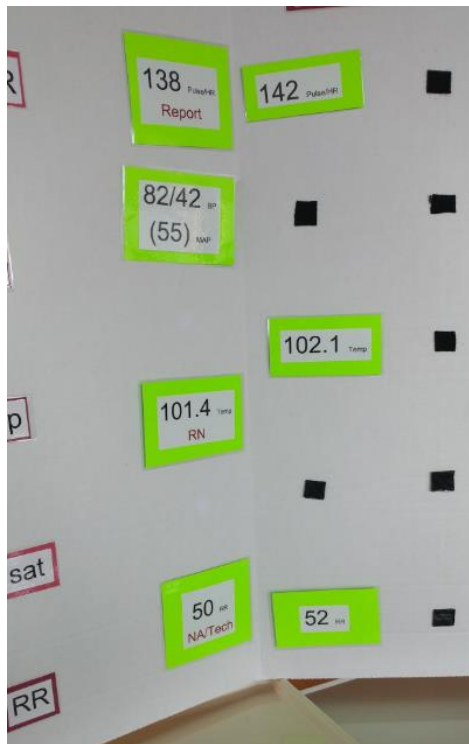
NA “retakes vital signs” (**Facilitator** placed vital sign cards on manikin while NA is looking at urine):
HR 142, BP 82/42 (55), RR 52, Temp 102.1, O2 sat 92%.



OR



NA places vital signs on tri-fold board:



The other card in the **RED POUCH** states: “Which of these vital signs is most concerning?”
(Print and laminate this card/question.)

Which of these vital signs is most concerning?
The answer in the specific vital sign folder opens the **BLUE Pouch!**

View of the inside each of the four (4) vital sign envelopes).



Correct envelop is “**Blood Pressure**”, which has the code “**PERKY**” on the inside; opens the **BLUE POUCH**:

BLUE POUCH:



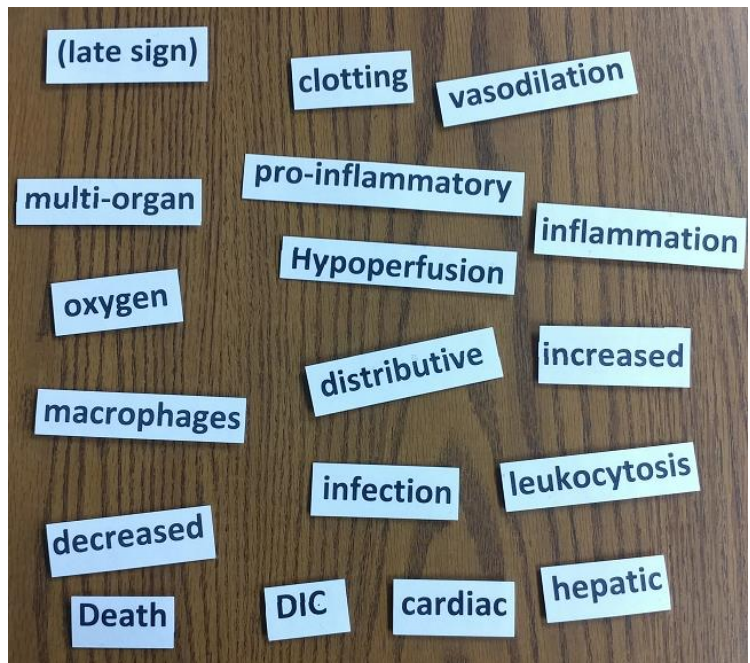
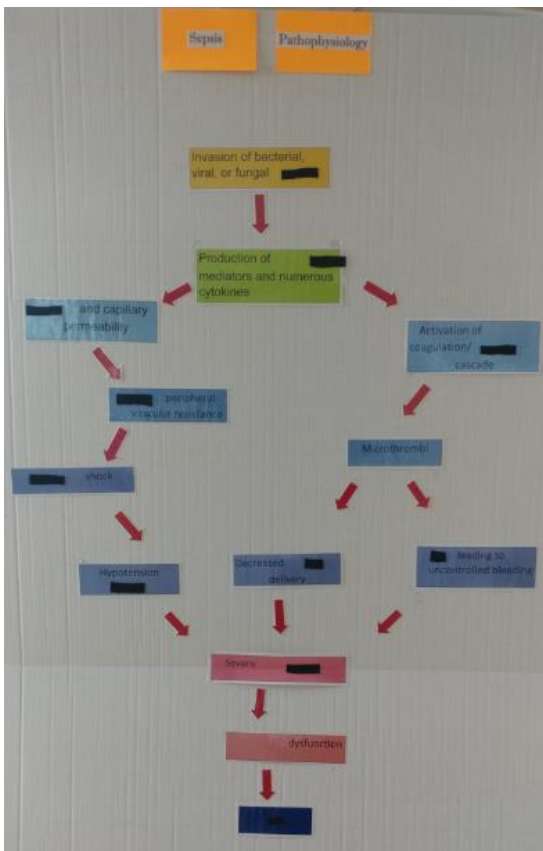
Contents (Cards) of BLUE POUCH: (Print and laminate card):

Great job! Now figure out sepsis pathophysiology. If you can correctly match up the pathophysiology for sepsis, then you can call the provider to report the vital sign concerns and get the provider back in the room.

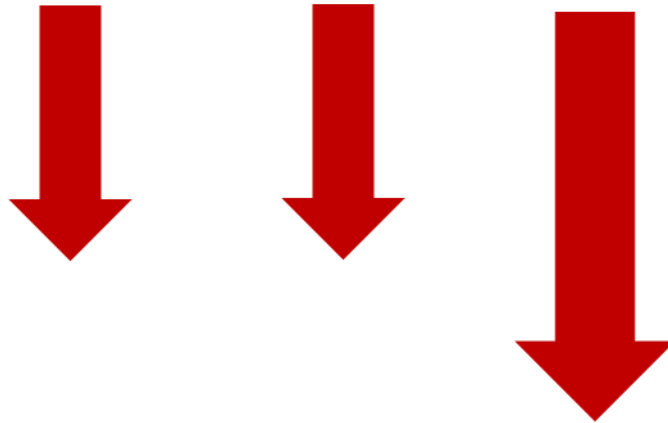
2nd picture to collect. (Print and laminate picture).



Sepsis Pathophysiology board and tags:



Components to create Sepsis Pathophysiology board:



Make 14 total arrows.

Colored tags for creating Sepsis Pathophysiology board (Print and laminate.)

Production of
mediators and numerous
cytokines

Invasion of bacterial,
viral, or fungal

and capillary
permeability

Activation of
coagulation/
cascade

peripheral
vascular resistance

Micro thrombi

Decreased
delivery

shock

Hypotension

dysfunction

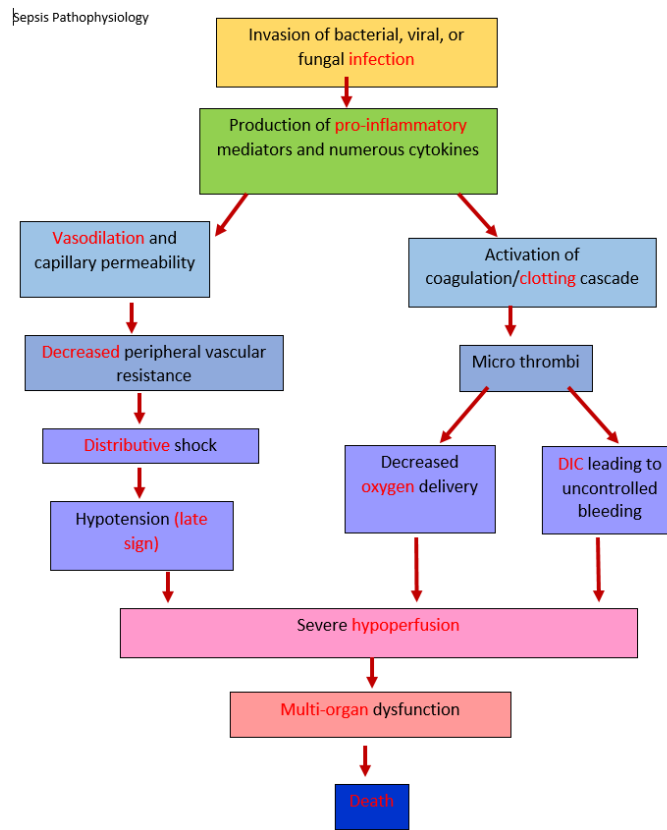
leading to
uncontrolled bleeding

Severe

Words for creating tags for Sepsis Pathophysiology board: (Print and laminate.)

infection clotting decreased
vasodilation multi-organ
pro-inflammatory Death
distributive hepatic
oxygen macrophages
(late sign) increased
DIC cardiac
Hypoperfusion leukocytosis
inflammation organ

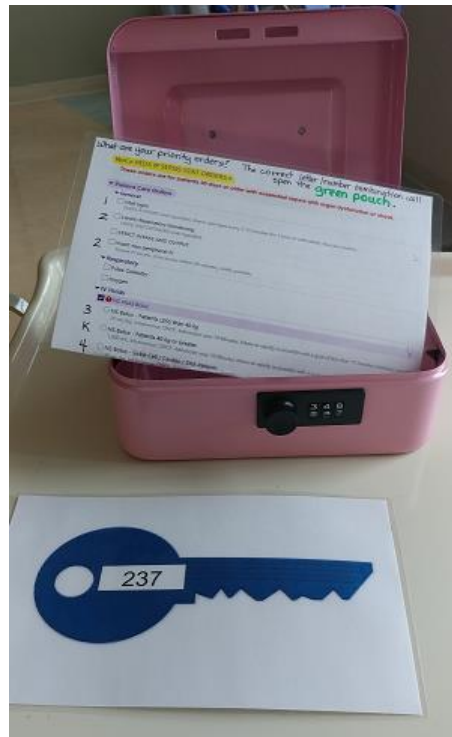
Answers to Sepsis Pathophysiology:



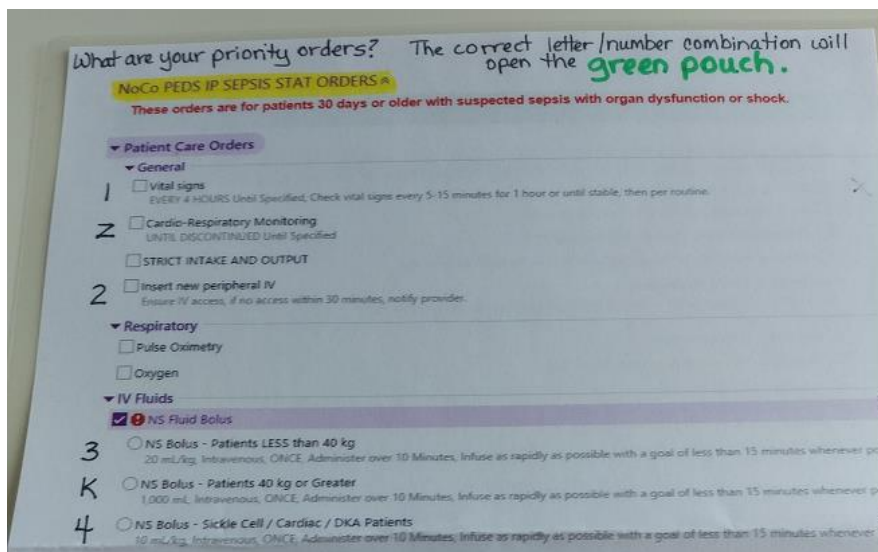
When they get sepsis pathophysiology correct, hand them the laminated **Purple key (Print and laminate key.):** **237** to open **PINK Box**.



PINK Box contains copy of Pediatric Sepsis Order Set—Print and laminate Sepsis Order set--label orders to include correct answers to the lock that opens GREEN Pouch.



Have them pick which orders **they should expect Provider to order**. Order set orders will have a number or letter next to them. The correct letter/number combination will open the GREEN Pouch.



Order set orders are on both sides of page.

Antibiotics

* NOTE: Initiate appropriate antibiotics (based on treatment algorithm below) in patients NOT already receiving antibiotics.

* Please call pharmacy to alert them for immediate verification.

Communication to Pharmacy of Sepsis STAT Patient
Sepsis STAT has been activated on this patient. Please expedite antibiotics to the bedside.

X First Line Antibiotics (immunocompetent Patients)

Immunocompromised and/or Central Line Patients

Additional Antibiotics for Suspected Anaerobe/GI Source

Additional Antibiotics for Suspected Gram Positive/Toxin-Mediated Illness

Antipyretics & Pain Medications

DO NOT order ibuprofen or rectal medications for oncology patients.

ibuprofen - mild pain or fever

acetaminophen - mild pain or fever (MCR/PVH)

Y **Vasoactive Medications**

DOPamine (INTROPIN) infusion (NICU/PEDS)
Intermittent, CONTINUOUS, Central Line Preferred

EPINEphrine (ADRENALIN) IV drip - Suspected "COLD" Shock (Low Cardiac Output)
Intermittent, CONTINUOUS

W NORepinephrine (LEVOPHED) IV drip - Suspected "WARM" Shock (Vasodilatory)
Intermittent, CONTINUOUS

Laboratory

Lab - Blood (GH/MCR/PVH)

CBC w/Manual Diff if Auto Diff Fails
STAT, ONCE

Comprehensive Metabolic Panel
STAT, ONCE

T Blood culture, 2 sets

S Lactate Whole Blood Sepsis (\$\$\$)
STAT, ONCE

Prothrombin Time / INR
STAT, ONCE

PTT (\$\$)
STAT, ONCE

Fibrinogen (\$\$\$)
STAT, ONCE

D-Dimer Quantitative (\$\$\$)

POCT Glucose (Bedside)

R C-Reactive Protein (\$\$)

Procalcitonin

From the order set, code to open GREEN Pouch: **13XTS**



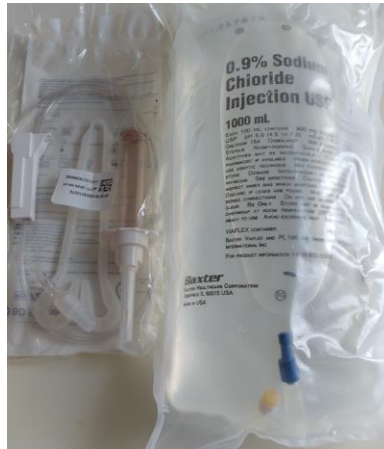
Card in GREEN Pouch: (Print and laminate card.)

Provider and lab are at the bedside. Lab is drawing the rest of the labs we were unable to get with the IV start; provider orders a 20 mL/kg NS bolus. When you flush the IV to prepare for the bolus, the IV blows.

RN delegates to NA to get IV supplies to hang a bolus.

RN to verbalize to facilitator what supplies are needed if we were unsuccessful in starting IV. Where would you find the supplies and equipment?

Facilitator guides/looking for RN(s) to verbalize location of IO drill, extension tubing and supplies at PVH Pediatrics Plus in Procedure Cart, anticipating need to utilize push pull to deliver bolus.



When NA returns with IV supplies, **facilitator** hands RN the following question:

Facilitator Handout: (Print and laminate card.)

What is the amount of bolus fluids we will give Liam, based on the provider order? That amount will unlock the **SILVER** box.

RNs will calculate the fluid bolus for our 25.8 kg patient ($20 \text{ mL/kg} \times 25.8 \text{ kg} = 516$).

SILVER box lock code (amount of fluid bolus): **516**



Cards in SILVER box: (Print and laminate card.)

Answer True or False for the questions below. If you answer correctly, then the true or false answers will give you the code to unlock the **ORANGE** pouch. Some of the questions may be difficult but make your best guess.

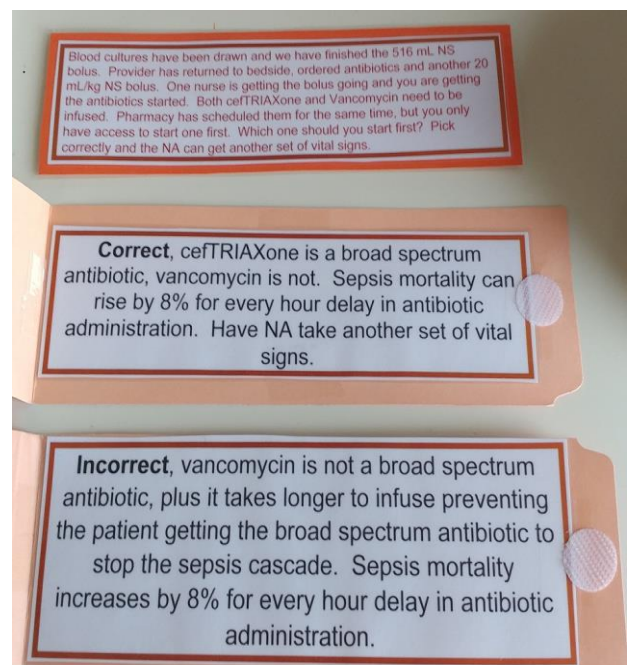
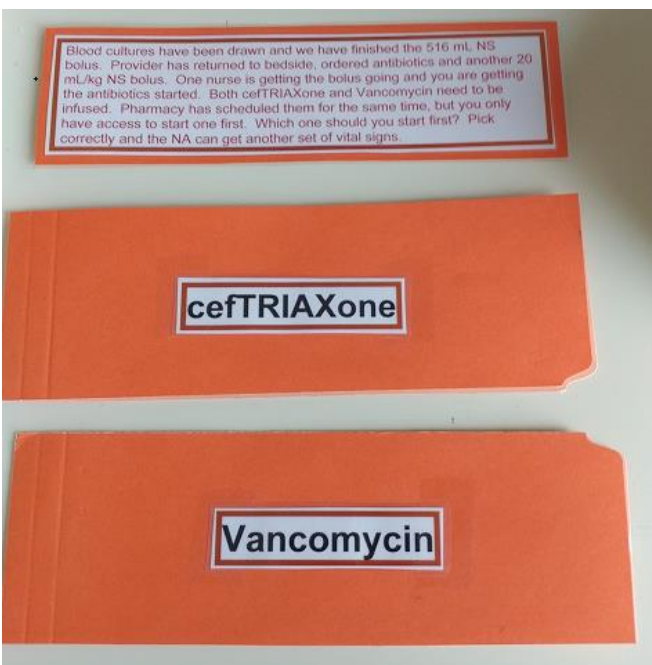
1. **TTrue or FFalse:** In a Pediatric patient you are concerned about IV access, you may have six (6) attempts to start an IV before going to an IO.
2. **TTrue or FFalse:** Systemic inflammatory response syndrome (SIRS) criteria is not sensitive enough to help diagnose sepsis in Pediatric patients.
3. **TTrue or FFalse:** To determine if a Pediatric patient (8 years of age) is hypotensive, the calculation is $70 + 2 \times (\text{age in years})$.
4. **TTrue or FFalse:** Tachycardia is a Pediatric patient's way of compensating in shock.
5. **TTrue or FFalse:** When sepsis is suspected in a Pediatric patient, broad-spectrum IV antibiotics should be administered within 60 minutes.

3rd picture to collect (**Print and laminate picture**).



Ticket to Ride

Answers to True/False questions is code **FTTTT**, which opens **ORANGE BB 8 Pouch**.



Contents (Cards) in ORANGE BB 8 Pouch: (Print and laminate card; create two (2) folders, one stating cefTRIAxone, one stating Vancomycin with inserts of correct and incorrect answers.)

Blood cultures have been drawn and we have finished the 516 mL NS bolus. Provider has returned to bedside, ordered antibiotics and another 20 mL/kg NS bolus. One nurse is getting the bolus going and you are getting the antibiotics started. Both cefTRIAXone and Vancomycin need to be infused. Pharmacy has scheduled them for the same time, but you only have access to start one first. Which one should you start first? Pick correctly and the NA can get another set of vital signs.

cefTRIAXone

Correct, cefTRIAXone is a broad spectrum antibiotic, vancomycin is not. Sepsis mortality can rise by 8% for every hour delay in antibiotic administration. Have NA take another set of vital signs.

Vancomycin

Incorrect, vancomycin is not a broad spectrum antibiotic, plus it takes longer to infuse preventing the patient getting the broad spectrum antibiotic to stop the sepsis cascade. Sepsis mortality increases by 8% for every hour delay in antibiotic administration.

4th picture to collect (**Print and laminate picture**).



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Facilitator places next vital sign cards on manikin as they are reading the cards and selecting the appropriate antibiotic.

HR 142, BP 79/41 (54), RR 52, Temp 102.1, O2 sat 92% on O2, 2 lpm, nasal cannula.



OR



NA can place vital signs on tri-fold board.



Facilitator: Hand to participants (Print and laminate card.)

Your second 20 mL/kg NS bolus is infusing. We were not able to get an IV so the bolus and antibiotic are infusing by IO. Where is one of the most common sites for IO placement? Perform the “**Operation**” for IO placement for the next clue.

This clue takes them to the **Operation Game**, where they pull a key and paper clue from the “leg area”.



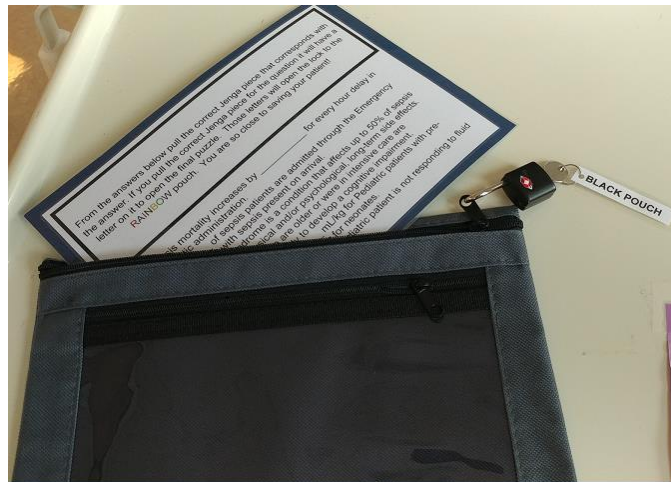
Paper Clues for Operation Game: (Print and laminate each clue.)

BLACK POUCH (attach key to this clue that opens black pouch)

NICE TRY!

TRY AGAIN!

BLACK POUCH:



Jenga questions in BLACK Pouch: (Print and laminate card + questions.)

From the answers below pull the correct Jenga piece that corresponds with the answer. If you pull the correct Jenga piece for the question it will have a letter on it to open the final puzzle. Those letters will open the lock to the **RAINBOW** pouch. You are so close to saving your patient!

1. Sepsis mortality increases by _____ for every hour delay in antibiotic administration.

2. _____ of sepsis patients are admitted through the Emergency Department with sepsis present on arrival.
3. Post sepsis syndrome is a condition that affects up to 50% of sepsis survivors with physical and/or psychological, long-term side effects. Sepsis survivors who are older or were in intensive care are _____ x more likely to develop a cognitive impairment.
4. Adjust fluid bolus' to _____ mL/kg for Pediatric patients with pre-existing cardiac conditions or for neonates.
5. Consider _____ drugs if Pediatric patient is not responding to fluid bolus'.



Correct answers to questions:

From the answers below pull the correct Jenga piece that corresponds with the answer. If you pull the correct Jenga piece for the question it will have a letter on it to open the final puzzle. Those letters will open the lock to the RAINBOW pouch. You are so close to saving your patient!

1. Sepsis mortality increases by _____ for every hour delay in antibiotic administration.
2. _____ of sepsis patients are admitted through the Emergency Department with sepsis present on arrival.
3. Post sepsis syndrome is a condition that affects up to 50% of sepsis survivors with physical and/or psychological, long-term side effects. Sepsis survivors who are older or were in intensive care are _____ x more likely to develop a cognitive impairment.
4. Adjust fluid bolus' to _____ mL/kg for Pediatric patients with pre-existing cardiac conditions or for neonates.
5. Consider _____ drugs if Pediatric patient is not responding to fluid bolus'.

8 %

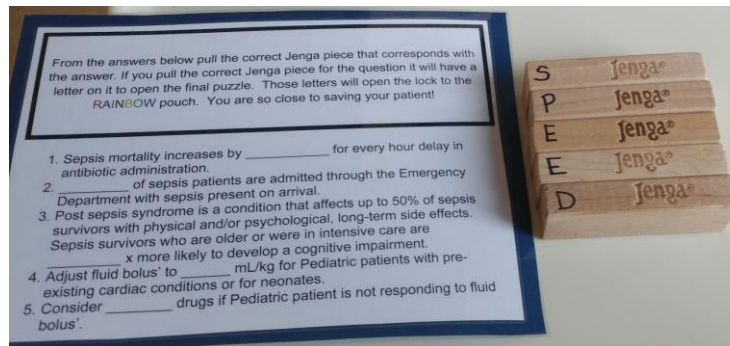
80 %

33 X

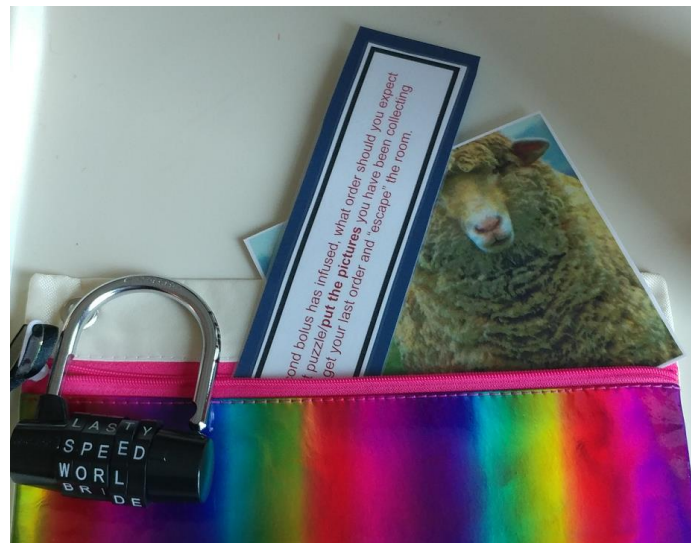
10 ML/KG

VASOACTIVE

When the blocks with the correct answers are turned over, the code **SPEED** is revealed, which will open the **RAINBOW Pouch**:



Contents in RAINBOW Pouch:



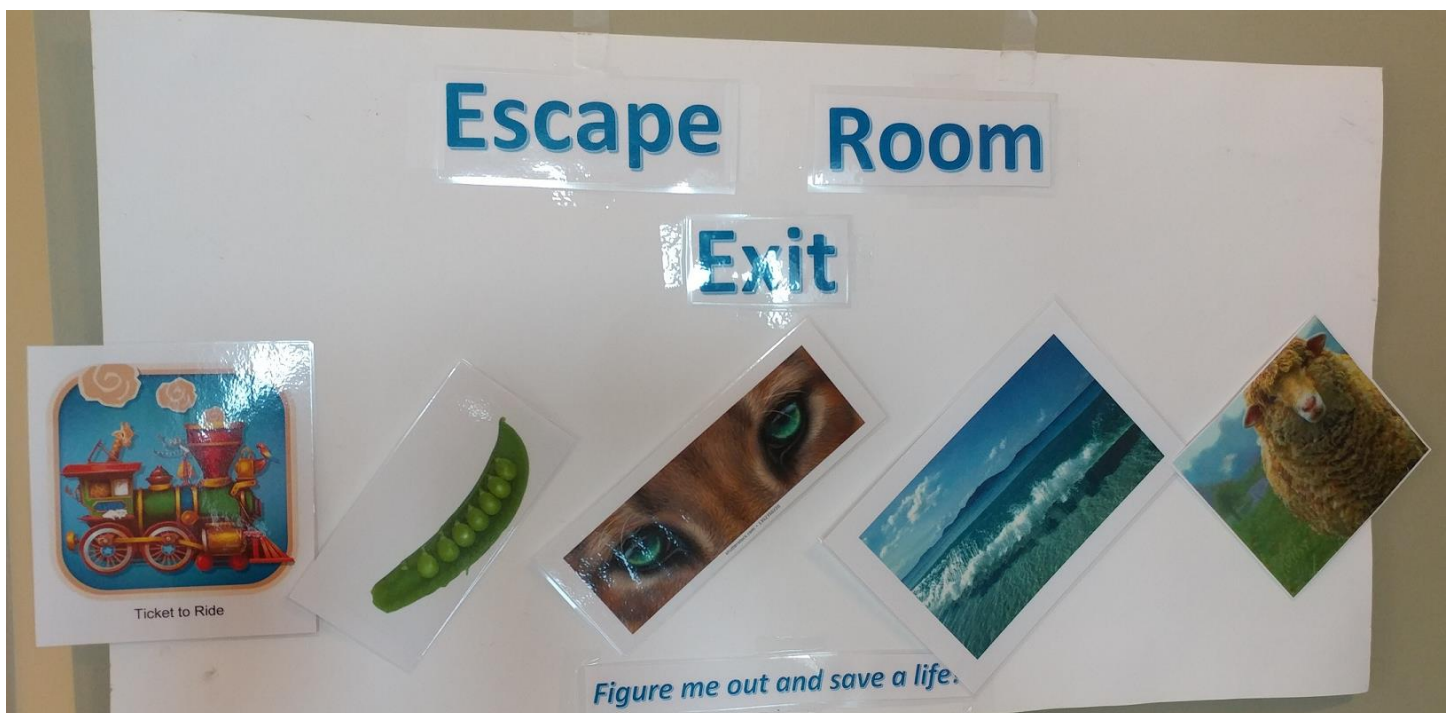
(Print and laminate card.)

Great job, your second bolus has infused, what order should you expect next? Play the last puzzle/**put the pictures** you have been collecting together to get your last order and "escape" the room.

5th picture to collect. (Print and laminate picture.)



When all the pictures are put together, the picture clues indicate **“Transfer to PICU”**



Transfer to “Pea” “Eye” “Sea” “Ewe”

Specific Goals and Objectives for Debrief:

Know when to call an RRT/Pediatric Provider:

- For concerns of sepsis
- Review RRT policy
- NoCo Peds IP Sepsis Stat order set

Understand when a Sepsis Alert (for Adults) is called and how:

- To be initiated by RRT RN if pt. meets criteria
- Goal to get lactate, blood cultures, and antibiotics done in less than 1 hour
- Understand calling RRT again after sepsis alert initiated if patient has new or unresolved hypotension or other changes in organ dysfunction

Are there specific points you would like to ensure to cover during this debrief?

- Fluids in sepsis are aimed at not only filling the tank but also providing enough volume to move the inflammatory mediators clotting the organ micro capillaries, opening the capillaries, and restoring perfusion to the organs.
- Fluids are aimed at increasing capillary perfusion which, in turn, allows for the organ cell to function properly and reverse organ damage
- Research shows only about 60% of a bolus remains in circulation after 20 minutes
- If a patient still has hypoperfusion/hypotension, we need to move on to vasopressors to support perfusion until the sepsis cascade can be stopped
- Over 80% of our septic patients present to us with sepsis present on arrival from the ED, number goes up to about 92% when you add in direct admits from doctors' offices and outside facilities – this means the sepsis cascade has been going on for a long time and it will take time for the antibiotics to stop the cascade, so we must support perfusion until then.

Exclusions for fluids?

- We want to move on to pressors if patient is not fluid responsive because the side effects of hypoperfusion are profound.

Sepsis syndrome facts:

Latest research showing impacts of sepsis syndrome:

- 3-fold increase in cognitive impairment
- 1-2 functional limitations (ADLs)
- 40% hospitalized within 90 days
- 1 in 5 with post-acute mortality
- 1/3 of sepsis survivors die within 6 months of initial sepsis hospitalization

It can take months for the immune system to return to normal following sepsis. This is why our patients are at higher risk of another infection or disease process.

We need to be better at monitoring perfusion status because decreased perfusion is leading to the long-term disabilities and increased risk of death in our patients.

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