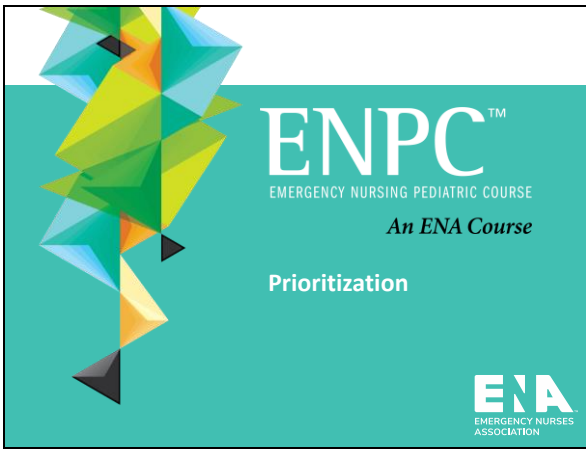


Slide
1



*Triage and Prioritization starts on page 109 of your provider manual.

***BOLD FONT** = suggestions for instructor script to facilitate the presentation
NORMAL FONT = expected student response or facilitation tips

Slide
2

The slide has a teal header with the word 'Objectives' in white. Below the header, there are four bullet points. At the bottom right, there are logos for ENPC™ and ENA.

- Describe the components and utility of the Pediatric Assessment Triangle (PAT).
- Integrate Pediatric Assessment Triangle findings into a categorization of “sick, sicker, or sickest.”
- Differentiate the PAT categorization from determination of triage acuity.
- Recognize subtle signs of serious illness in the pediatric population.

We are not going to cover the specifics of how to use established triage tools for pediatric patients. There is a comparison of four common triage systems on page 114 of your provider manual. **What you will learn is how to recognize pediatric patients at greatest risk for decompensation. This can be used at triage and with every pediatric patient encounter.**

Slide
3

The slide features a teal header with the title 'The Pediatric Assessment Triangle (PAT)'. Below the header is a large triangle divided into three colored sections: a blue top section labeled 'Appearance', a green right section labeled 'Work of Breathing', and a red bottom section labeled 'Circulation to Skin'. At the bottom right, there are logos for ENPC™ and ENA.

Appearance

Work of Breathing

Circulation to Skin

What is the Pediatric Assessment Triangle, or PAT?
Across-the-room visual assessment
Based on visual and auditory cues
Reliable tool for identifying acutely ill and injured infants and children
Standardized method to evaluate and physiological instability and set priorities
Used with every pediatric encounter
Now we will break down each part of the triangle.

Image: ENA

Slide
4

PAT

Appearance

- Tone
- Interactiveness
- Consolability
- Look/gaze
- Speech/cry

ENPC[®] EMERGENCY NURSES ASSOCIATION
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Does anyone remember the mnemonic for or components of general appearance? What does each letter stand for?

TICLS

CLICK for components

Give me some examples of a concerning finding in each component.

Limp, flaccid, decreased movement, no head control if over 3 months of age

Not drawn to sounds or people, not interested in toys or caregiver interaction, does not engage, listless, no response to movements or sounds

Not comforted easily with caregiver attention, familiar objects (toys, pacifier, blanket), or reassurance

Staring into space, unfocused

Weak cry or speaks with effort

Slide
5

PAT

Work of Breathing

- Tachypnea
- Stridor
- Grunting
- Retractions
- Nasal flaring
- Head bobbing
- Tripoding

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Who can tell me some signs of increased work of breathing? Remember these are **VISUAL** or **AUDITORY** assessments only.

CLICK for components

What is the significance of these findings?

Indicate attempts to compensate for ineffective oxygenation, ventilation, or perfusion

Slide
6

PAT

Circulation to Skin

- Pallor
- Mottling
- Cyanosis

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What are we looking for in circulation to the skin? Remember these are **VISUAL** assessments only.

CLICK for answers

What causes mottling?

Vasoconstriction, a compensatory mechanism for inadequate perfusion (shock)

Other than compensation for shock, what can cause mottling?

Cold, medications (albuterol, epinephrine)

It is always safest to assume that mottling is due to inadequate perfusion until proven otherwise.

What does cyanosis indicate?

Significant hypoxia, considered a late and ominous sign of impending cardiopulmonary failure

Slide
7

Sick, Sicker, Sickest

- NO alterations in the PAT =sick
- Alteration in ONE component = sicker
- Alteration in TWO or more components = sickEST

Appearance Work of Breathing
Circulation to Skin

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When should you use the PAT?

EVERY time you see a pediatric patient. This is a quick assessment that can alert you to a change in patient condition just by peeking into the patient's room.

PAT only generalizes patients between 3 categories: sick, sicker, sickest. Why are all emergency department patients at least "sick" even without abnormalities in the PAT?

The caregivers were concerned about something that prompted them to bring the child in for evaluation. This is **NOT** same as a triage acuity rating. However, it may indicate that the patient needs to be brought directly back to a room OR determine which patients the triage nurse should evaluate first.

Image: ENA

Slide
8



Who has seen this condition? Do you remember what isolation is required for varicella (chickenpox)? "Airborne (negative air-flow rooms) and contact precautions until lesions are dry and crusted." While less commonly seen due to the varicella vaccine, chickenpox is still highly contagious to people without evidence of immunity. Premature infants, immunocompromised people, and pregnant women are at higher risk for severe illness.

<https://www.cdc.gov/chickenpox/hcp/#varicella-management> retrieved October 20, 2020

We are now all very aware that infection is not always that obvious. What prompts consideration of infection control measures?

History of travel from a country known to have a highly contagious emerging disease

Uncontrollable coughing, whooping sound before the cough (pertussis)

Petechiae on the face from coughing

Fever, rash, sore throat

Fever, upper respiratory symptoms

Vomiting and diarrhea

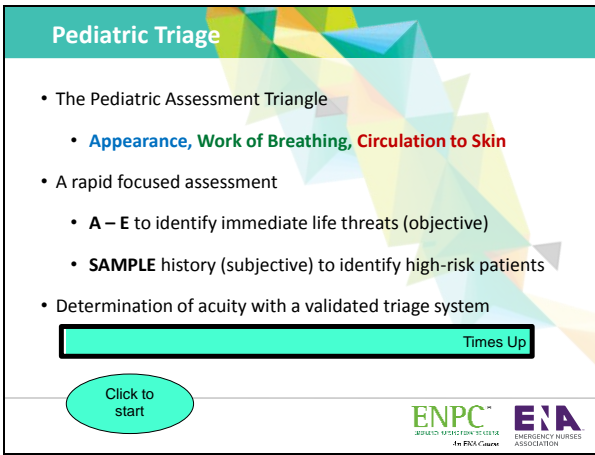
Many others

What do you do to isolate your pediatric patients?

Who is responsible for this?

Ideally this is done at triage or upon arrival, but everyone is responsible for initiating isolation precautions as soon as a concern is identified.

Slide
9



Pediatric Triage

- The Pediatric Assessment Triangle
 - **A**pppearance, **W**ork of Breathing, **C**irculation to Skin
- A rapid focused assessment
 - **A – E** to identify immediate life threats (objective)
 - **SAMPLE** history (subjective) to identify high-risk patients
- Determination of acuity with a validated triage system

Times Up

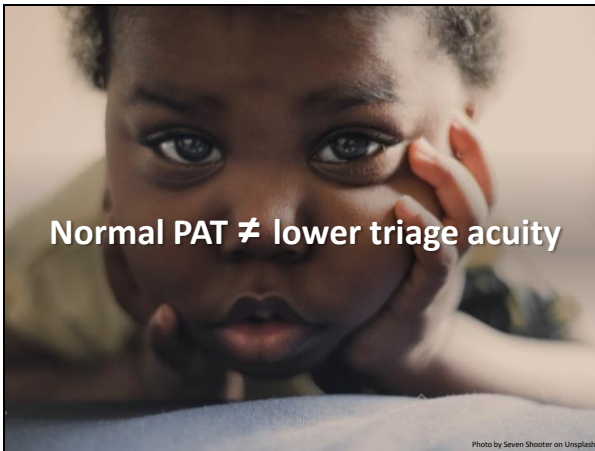
Click to start

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**For In Person Classes Use the Timer
For General Appearance, WOB and
Circulation**

What are the steps of the pediatric triage process?
PAT
Rapid primary: Objective A–E assessment (page 111)
Vital signs including temperature and weight
Focused history: Subjective SAMPLE history (page 112)
Triage acuity rating: Multiple systems worldwide (pages 114-115)
What triage system do you use? What other triage systems have you heard of?
Australasian Triage Scale (ATS)
Canadian Triage Acuity Scale (CTAS)
Emergency Severity Index (ESI)
Manchester Triage System (MTS)
Pediatric considerations must be taken into account and the triage system must have research supporting its validity and reliability. All triage systems require baseline education followed by ongoing quality monitoring and performance improvement.

Slide
10



Normal PAT ≠ lower triage acuity

Photo by Seven Shooter on Unsplash

When might a patient with NO abnormalities to the PAT be given a higher triage acuity?
PAT—solely focused on appearance, work of breathing, and circulation to the skin.
Triage acuity requires more data—the patient’s symptoms and history help determine whether the patient is high-risk for deterioration.
A child may be “sick” on the PAT (no actual ABCD problems) but an ATS 2, CTAS 2, ESI 2, or MTS orange due to risk based on history.
An interactive 2-year-old with no increased work of breathing and normal skin color would be “sick.”
After you complete a history and determine he has a fever and a history of sickle cell disease, you know he is a high-risk patient.

Slide
11



What is alarming about the child who is difficult to console? What conditions would you consider? I will give you a few minutes to think, then we will go around the class to share our answers.

Hypoxia

Child maltreatment

Frenulum tear in mouth (from forceful shoving of a bottle or cupping hand over child's mouth)

Neonatal withdrawal from drug exposure

Hypoglycemia

Fractures

Sickle cell crisis

Hair or thread tourniquet around digit/toe or genitalia

Abdominal pain (life-threatening in presence of bilious emesis)

Scratched cornea from parent or child's own fingernails

Gastroesophageal reflux disease

Refer to table 11-2 on page 115 of the provider manual for the IT CRIES(S) mnemonic.

Slide
12



When a caregiver uses this word, be concerned for significant illness or injury. Does anyone have any examples of a "fussy" presentation that was indicative of something serious?

Examples may include abusive head trauma, intussusception, hypoglycemia, bowel obstruction

Slide
13



What does crying indicate?

Crying indicates an unmet need like hunger, pain, frustration, tiredness, or anger.

Crying is a vital way to communicate for the pre-verbal child.

What challenges are presented by the crying child?

Difficult to determine if tachypnea or tachycardia are from crying or physiologic compensation

Difficult to assess heart and lung sounds

How can you use crying as a form of assessment?

A vigorous cry can be very reassuring

A weak cry can signal a serious illness

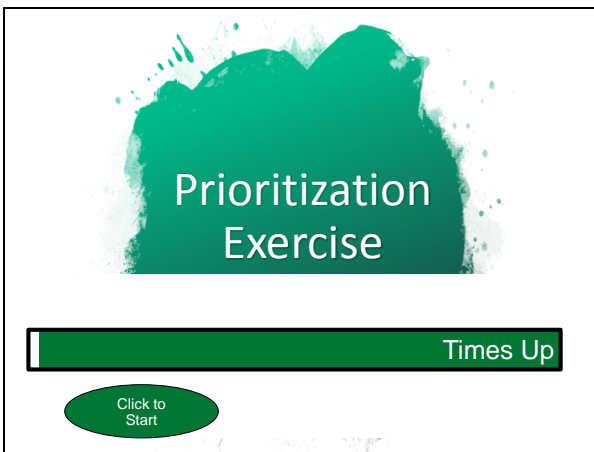
A screeching, high-pitched cat-like cry can be a signal of a central nervous system disorder

A hoarse cry can indicate an upper respiratory illness

Tear production will decrease with significant dehydration

An open mouth allows you to assess mucous membranes for color and hydration

Slide
14



This exercise can be done with the entire class by calling on students. Virtually, a poll or chat can be used for the responses.

In-person or virtually, the class can be divided into 2–4 groups. Each group is given 1–2 hospitals to determine sick, sicker, or sickest and then the order of triage based on the PAT. Each group elects a spokesperson and shares their decisions and rationale with the entire class. If the class is competitive, this can be done as a race. Which group finishes prioritizing first? Ensure that the rationale and teaching points are covered when reviewing with the entire class.

The order of triage is open for discussion. Students might have pertinent assessment questions that would help them decide between two patients. This discussion should be encouraged.

Slide
15

Hospital A

A. 4-year-old with fever and occasional cough.
Appearance: Alert, playing with a toy
Work of Breathing: Normal respirations, mild cough
Circulation to the Skin: Pink

B. 18-month-old with fever and difficulty breathing x 48 hours.
Appearance: Alert, looking at mother
Work of Breathing: Moderate retractions, respirations labored and fast
Circulation to the Skin: Pale with flushed face

C. 2-week-old with increased fussiness for 8 hours, fever of 38.3°C (101°F), and ↓ intake.
Appearance: Sleeping, difficult to arouse
Work of Breathing: Slow, shallow respirations
Circulation to the Skin: Pale

D. 9-year-old with cough, runny nose, and right ear pain x 3 days.
Appearance: Alert, playing with father's phone
Work of Breathing: Normal respirations, mild congestion
Circulation to the Skin: Pale

Decide if each patient is sick, sicker, or sickest. Then decide which patient you want to triage first, second, third, and fourth.

- Sick: nothing altered
- Sickest: work of breathing and circulation are altered
- Sickest: all are altered

Discuss neonatal fever as a priority patient even if nothing was altered, discuss red flag of 'fussiness'

- Sicker: circulation is altered

Order of triage (open for discussion): C B D A

Image: ENA

Slide
16

Hospital B

A. 8-year-old with cough and difficulty breathing. "I have asthma."
Appearance: Alert, talking and drinking juice
Work of Breathing: Mild retractions, mildly tachypneic, occasional cough
Circulation to the Skin: Pink

B. 14-month-old with fever and rash. Diagnosed with an ear infection last week, taking antibiotics.
Appearance: Alert, interacting with older sibling
Work of Breathing: Normal respirations, mild cough
Circulation to the Skin: Pink with sandpaper rash to arms and chest

C. 2-year-old fell while walking, landing on left arm. Refusing to use the arm.
Appearance: Awake, holding left arm
Work of Breathing: Normal respirations, no increased work of breathing
Circulation to the Skin: Pink

D. 3-week-old with cough, congestion, and intermittent fevers for several days.
Appearance: Alert and irritable, inconsolable
Work of Breathing: Severe retractions, moderate congestion, persistent cough
Circulation to the Skin: Pale with some mottling

Decide if each patient is sick, sicker, or sickest. Then decide which patient you want to triage first, second, third, and fourth.

- Sicker: work of breathing is altered
- Sick: nothing altered

Discuss rash as a factor with alteration in other elements, but not as an isolated finding UNLESS purpura/petechiae or hives/facial swelling/potential anaphylaxis

- Sick: nothing altered
- Sickest: all are altered

Order of triage (open for discussion): D A B C

Image: ENA

Slide
17

Hospital C

A. 18-month-old, fussy x 1 day, reported fever of 40°C (104°F), no wet diapers in the past 8 hours.
Appearance: Fussy, holding onto mother, difficult to console
Work of Breathing: Fast, shallow respirations with moderate retractions
Circulation to the Skin: Pale

B. 14-month-old with bruising to abdomen and around the ear.
Appearance: Sleeping, wakes easily, but immediately goes back to sleep
Work of Breathing: Slow respirations, moderate retractions
Circulation to the Skin: Pale

C. 12-year-old with a history of asthma fell while playing basketball. "My ankle hurts so bad I cannot put weight on my foot."
Appearance: Alert, texting a friend
Work of Breathing: Normal respirations
Circulation to the Skin: Pink

D. 4-year-old with intermittent fever and dysuria x 24 hours.
Appearance: Alert, drinking water
Work of Breathing: Respirations normal, occasional dry cough
Circulation to the Skin: Pink

Decide if each patient is sick, sicker, or sickest. Then decide which patient you want to triage first, second, third, and fourth.

- Sickest: all are altered
- Sickest: all are altered

Discuss child maltreatment as a factor and how to protect child while giving caregiver the benefit of the doubt. TEN-4 is a mnemonic to consider abuse with bruising to the torso, ear, or neck in a child younger than 4 years.

- Sick: nothing altered
- Sick: nothing altered

Order of triage (open for discussion): B A D C

Image: ENA

Slide
18

Hospital D

A. 11-year-old with back pain after lifting a chair.
Appearance: Alert, talkative
Work of Breathing: Normal respirations
Circulation to the Skin: Pink

B. 10-month-old who ate a few of her grandmother's blood pressure pills.
Appearance: Limp, unresponsive
Work of Breathing: Slow, shallow respirations
Circulation to the Skin: Pale

C. 2-year-old with persistent cough and pulling on his left ear x 3 days.
Appearance: Alert, playing with twin sister
Work of Breathing: Mild congestion with retractions, hacking cough
Circulation to the Skin: Pink

D. 7-year-old with nausea and vomiting x 3 hours, holding a plastic bag.
Appearance: Alert, holding a plastic bag
Work of Breathing: Normal respirations
Circulation to the Skin: Pale

Decide if each patient is sick, sicker, or sickest. Then decide which patient you want to triage first, second, third, and fourth.

- Sick: nothing altered
- Sickest: all are altered


Discuss ingestions (including button batteries and magnets) as time sensitive even if nothing was altered

- Sicker: work of breathing is altered
- Sicker: circulation is altered

Order of triage (open for discussion): B C D A

Image: ENA

Slide
19



What role does customer service play in triage?

Caregivers need reassurance that their concerns about their child are taken seriously
First impressions can make or break the entire ED experience

Providing anticipatory guidance and reassurance goes a long way

Saying something like “We are unable to bring you back to a room immediately, but please let us know if anything changes with Timothy” is valuable. Giving specific symptoms to watch out for relieves caregiver anxiety and gives them a way to advocate for their child when appropriate.

Slide
20



Prioritization and triage are dynamic processes. When deliberately assessed, the PAT, primary survey, and a focused history can identify children who require immediate intervention, are at risk for deterioration, or who can safely wait with ongoing monitoring.

Appearance Answer Key

A child's interaction with the caregiver and engagement with the environment provides information about perfusion to the brain.

Describe the mnemonic TICLS with normal and abnormal findings:

Assess	Normal findings	Abnormal findings
T Tone	<ul style="list-style-type: none"> • Good muscle tone, normal movement • Head control (> 3 months) 	<ul style="list-style-type: none"> • Decreased movement • No head control • Limp/flaccid
I Interactiveness	<ul style="list-style-type: none"> • Child wants to play/interact • Responds to sounds or movements 	<ul style="list-style-type: none"> • Does not engage • Listless • No response to movements or sounds
C Consolability	<ul style="list-style-type: none"> • Easily comforted with a familiar object or reassurance 	<ul style="list-style-type: none"> • Unable to comfort
L Look/gaze	<ul style="list-style-type: none"> • Alert with eyes open 	<ul style="list-style-type: none"> • Staring off into space
S Speech/cry	<ul style="list-style-type: none"> • Strong and vigorous cry • Speech strong 	<ul style="list-style-type: none"> • Weak cry or speech

Work of Breathing Answer Key

Work of breathing is an indication of the child's oxygenation and ventilation status and reflects the effectiveness of gas exchange.

What are signs of increased work of breathing in an infant?

Tachypnea, stridor, grunting, retractions, accessory muscle use, nasal flaring, and head bobbing

What additional signs of increased work of breathing would you observe in a school aged child?

Abnormal positioning (ie tripodging)

Circulation Answer Key

Cyanosis is considered a late and ominous sign of impending cardiopulmonary failure.

What are three things to observe for when assessing circulation while completing the PAT?

1. Pallor
2. Mottling
3. Cyanosis

What are the four steps of the pediatric triage process?

1. Pediatric Assessment Triangle
2. A rapid primary and focused assessment (objective)
3. A focused history (subjective)
4. The assignment of triage acuity

Prioritization Practice Scenarios Answer Key

Hospital A	Hospital B
<ol style="list-style-type: none"> 1. Sick: nothing altered 2. Sickest: work of breathing and circulation are altered 3. Sickest: all are altered* <i>*Discuss neonatal fever as a priority patient even if nothing was altered, discuss red flag of 'fussiness'</i> 4. Sicker: circulation is altered 	<ol style="list-style-type: none"> 1. Sicker: work of breathing is altered 2. Sick: nothing altered* <i>*Discuss rash as a factor with alteration in other elements, but not as an isolated finding UNLESS purpura/petechiae or hives/facial swelling/potential anaphylaxis</i> 3. Sick: nothing altered 4. Sickest: all are altered
Hospital C	Hospital D
<ol style="list-style-type: none"> 1. Sickest: all are altered 2. Sickest: all are altered* <i>*Discuss child maltreatment as a factor and how to protect child while giving caregiver the benefit of the doubt</i> 3. Sick: nothing altered 4. Sick: nothing altered 	<ol style="list-style-type: none"> 1. Sick: nothing altered 2. Sickest: all are altered* <i>*Discuss ingestions (including button batteries and magnets) as time sensitive even if nothing was altered</i> 3. Sicker: work of breathing is altered 4. Sicker: circulation is altered