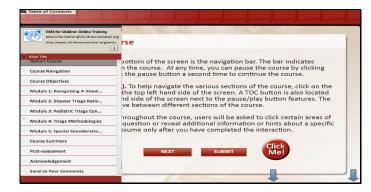


Slide 1-Title Slide

Text Captions: PEDIATRIC DISASTER TRIAGE:

Doing the Most Good for the Most Patients in the Least Time



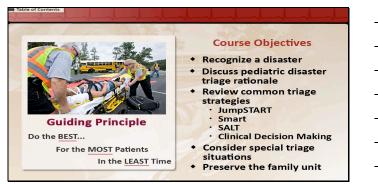
Text Captions: Navigating the Course

Navigation Bar. At the bottom of the screen is the navigation bar. The bar indicates where the user is within the course. At any time, you can pause the course by clicking the pause button. Click the pause button a second time to continue the course.

Table of Contents (TOC). To help navigate the various sections of the course, click on the TOC button located on the top left hand side of the screen. A TOC button is also located on the bottom right hand side of the screen next to the pause/play button features. The TOC allows users to move between different sections of the course.

Interaction Buttons. Throughout the course, users will be asked to click certain areas of the screen to answer a question or reveal additional information or hints about a specific topic. The course will resume only after you have completed the interaction.

SUBMIT NEXT



Slide 3 Text Captions: Guiding Principle Do the BEST...

For the MOST Patients ... In the LEAST Time Course Objectives Recognize a disaster Discuss pediatric disaster triage rationale Review common triage strategies JumpSTART Smart SALT Clinical Decision Making Consider special triage situations Preserve the family unit



Text Captions: Recognizing A Disaster Module One



Text Captions: Mass Casualty Incidents and Disasters Multiple Patient Incident (MPI) Up to 25 patients Mass Casualty Incident (MCI) 25 to 100 patients Disaster More than

100 patients

Three terms to describe a disaster . . .



Text Captions: Disaster Triage Rationale Module Two



-			

Text Captions: General Principle One: Scene Assessment

Secure the Scene

Identify ongoing hazards

Assess the Population

Estimate number, age, and

needs of patients

Determine Resources

Determine need for EMS, Fire, Police, Hazmat, Disaster Authorities

(Local, State, Federal)

The request for addition resources prior to triage assessment is in the best interest of both the response team and more importantly the patients. I often think of this as the equivalent of calling 911 at the very beginning of a resuscitation event.



Text Captions: General Principle Two: Triage Assessment What is Primary Traige?

Rapid sorting of victims based on severity of illness or injury

Everyone is seen once, briefly

Limited actual treatment provided

Assumptions of Primary Triage . . .

Medical resources are overwhelmed

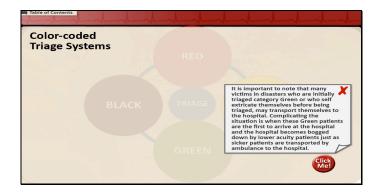
Additional resources will become available



Text Captions: If you can hear me, and you're able to, walk over here.

Sorting Multiple Victims Quickly . . .

Alternately, some triage systems or algorithms ask for all victims to move their limbs because the ability to move the limbs also means a lot about their perfusion, breathing, and circulation.



Text Captions: RED

YELLOW

GREEN

BLACK

TRIAGE

RED

YELLOW

GREEN

BLACK

It is important to note that many victims in disasters who are initially triaged category Green or who self extricate themselves before being triaged, may transport themselves to the hospital. Complicating the situation is when these Green patients are the first to arrive at the hospital and the hospital becomes bogged down by lower acuity patients just as sicker patients are transported by ambulance to the hospital.

Color-coded

Triage Systems



Text Captions: There are three basic tenets of the color-coded triage system. Click on each tab below to learn more about each. When complete, click the "NEXT" button and the training will resume automatically.

Once a patient is categorized, stop evaluating and move to the next victim.

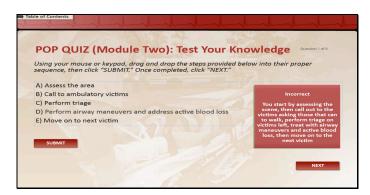
Tenet One

A minimum amount of treatment is provided during initial triage (airway maneuvers, chin tilts, jaw thrusts, and five rescue breaths).

Tenet Two

Once ALL patients are assigned to a color- coded category in primary triage, secondary triage begins.

Tenet Three



Text Captions: POP QUIZ (Module Two): Test Your Knowledge

Using your mouse or keypad, drag and drop the steps provided below into their proper sequence, then click "SUBMIT." Once completed, click "NEXT."

- A) Assess the area
- B) Call to ambulatory victims
- C) Perform triage
- D) Perform airway maneuvers and address active blood loss
- E) Move on to next victim

Correct

You start by assessing the scene, then call out to the victims asking those that can to walk, perform triage on victims left, treat with airway maneuvers and active blood loss, then move on to the next victim

Incorrect

You start by assessing the scene, then call out to the victims asking those that can to walk, perform triage on victims left, treat with airway maneuvers and active blood loss, then move on to the next victim

Question 1 of 6



Text Captions: Pediatric Triage Considerations Module Three



Text Captions: Challenges Specific to Children

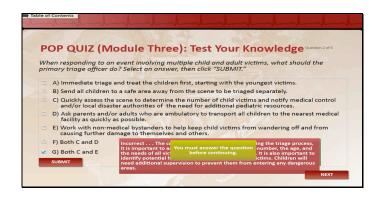
Children, especially toddlers, may wander away either before or after initial triage. They will need dedicated supervision to ensure their safety.

Children may have pre-existing conditions, such as asthma.

Children also respond differently to injury and illness than do adults.

Kids don't always follow commands. They may be afraid of the people trying to help them.

Injured children may be extricated by parents or other caregivers who are less injured or ill. This can delay triage and treatment.



Text Captions: POP QUIZ (Module Three): Test Your Knowledge

When responding to an event involving multiple child and adult victims, what should the primary triage officer do? Select an answer, then click "SUBMIT."

A) Immediate triage and treat the children first, starting with the youngest victims.

B) Send all children to a safe area away from the scene to be triaged separately.

C) Quickly assess the scene to determine the number of child victims and notify medical control and/or local disaster authorities of the need for additional pediatric resources.

D) Ask parents and/or adults who are ambulatory to transport all children to the nearest medical facility as quickly as possible.

E) Work with non-medical bystanders to help keep child victims from wandering off and from causing further damage to themselves and others.

F) Both C and D

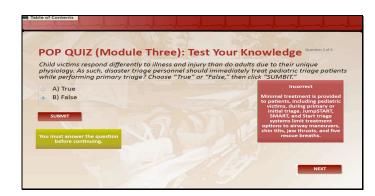
G) Both C and E

Correct . . . Before beginning the triage process, it is important to assess the scene to determine the number, the age, and the needs of all victims, including pediatric patients. It is also important to identify potential hazards that could further harm victims. Children will need additional supervision to prevent them from entering any dangerous areas.

Incorrect . . . The correct answer is G. Before beginning the triage process, it is important to assess the scene to determine the number, the age, and the needs of all victims, including pediatric patients. It is also important to identify potential hazards that could further harm victims. Children will need additional supervision to prevent them from entering any dangerous areas.

You must answer the question before continuing.

Question 2 of 6



Text Captions: POP QUIZ (Module Three): Test Your Knowledge

Child victims respond differently to illness and injury than do adults due to their unique physiology. As such, disaster triage personnel should immediately treat pediatric triage patients while performing primary triage? Choose "True" or "False," then click "SUMBIT."

A) True

B) False

Correct

Minimal treatment is provided to patients, including pediatric victims, during primary or initial triage. JumpSTART, SMART, and Start triage systems limit treatment options to airway maneuvers, chin tilts, jaw thrusts, and five rescue breaths.

Incorrect

Minimal treatment is provided to patients, including pediatric victims, during primary or initial triage. JumpSTART, SMART, and Start triage systems limit treatment options to airway maneuvers, chin tilts, jaw thrusts, and five rescue breaths.

Question 3 of 6

You must answer the question before continuing.



Text Captions: Common Triage Methodologies Module Four



Text Captions: Specifically used for the triage of children in the multi- casualty/disaster setting.

What Is JumpSTART?

Parallels the START system, the adult MCI triage tool.

START stands for "Simple Triage And Rapid Treatment." General Principles:

Ambulatory

Breathing

Respiratory Rate

Palpable Pulse

Mental Status

Table of Contents JumpSTART Algorithm	
AVPU	st in ing hm
Clou Romig MD, 2002 Palpable NO IMMEDIATE	
YES IMMEDIATE Learn more about JumpSTART at http://www.jumpstartrifuge.com	

Text Captions: JumpSTART Algorithm

REMINDER: If the patient looks like a child, use JumpSTART.

EXAMPLE: A male with facial hair or a female with breast development ... use START.

Assess using AVPU

Alert,

Not alert, but responsive to Voice,

Only responsive to Pain,

Unconscious

Learn more about JumpSTART at http://www.jumpstarttriage.com



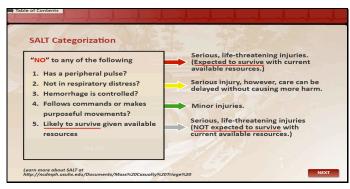


Text Captions: What Is SALT?

SALT = Sort, Assess, Lifesaving interventions, Treatment/Transport

Uses voice commands to globally sort patients.

The goal is to globally sort patients for individual assessment.



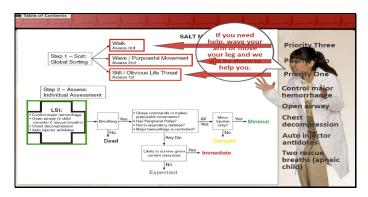
Text Captions: IMMEDIATE DELAYED MINIMAL EXPECTANT DEAD Serious, life-threatening injuries. (Expected to survive with current available resources.) Serious injury, however, care can be delayed without causing more harm. Minor injuries. Serious, life-threatening injuries (NOT expected to survive with current available resources.) "NO" to any of the following Has a peripheral pulse? Not in respiratory distress? Hemorrhage is controlled?

Follows commands or makes purposeful movements?

Likely to survive given available resources

SALT Categorization

Learn more about SALT at http://ncdmph.usuhs.edu/Documents/Mass%20Casualty%20Triage%20Algorithms.pdf



Text Captions: Everyone who can hear me and needs help, move to [designated area.]

If you need help, wave your arm or move your leg and we will be there to help you.

Priority One

Priority Two

Priority Three

Control major hemorrhange

Open airway

Chest decompression Auto injector antidotes Two rescue breaths (apneic child)



_			

Text Captions: What Is Smart?

Contained in a red zippered pouch that affixes to a person's belt with Velcro

Triage card used to triage adults and adolescents.

Length-based tape used to triage children.

Table of Contents	
Basic Smart Principles: Adult Victims Identify ambulatory victims, and categorize those victims Green.	WALKING (1997)
If not ambulatory, access respiration, perfusion, and motor skills to determine if the patient should be categorized Yellow, Red, or Black.	RESPIRATIONS
NEXT	CAPILLARY REFILL NO CRORE 2000
Learn more about Smart at http://www.smartmci.com/products/triage/smart_triage_pac.php	OBEYS SIMPLE (Yes) PRIORITY 2

Text Captions: Basic Smart Principles: Adult Victims

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Learn more about Smart at http://www.smartmci.com/products/triage/smart_triage_pac.php



Text Captions: Infant Algorithm

Uses a length-based tape. Where the feet align on the tape indicates which triage algorithm to use.

Uses three separate algorithms for children.

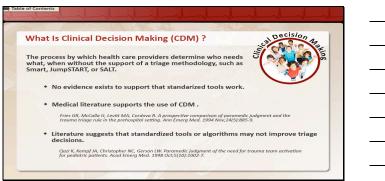
Basic Smart Principles: Child Victims

Toddler Algorithm

Child Algorithm

Click each button to view algorithm. Click red "x" to close each algorithm.

Access the Infant, Toddler, and Child Algorithms at http://www.smartmci.com/products/triage/smart_triage_pac.php



Text Captions: The process by which health care providers determine who needs what, when without the support of a triage methodology, such as Smart, JumpSTART, or SALT.

What Is Clinical Decision Making (CDM)?

No evidence exists to support that standarized tools work.

Medical literature supports the use of CDM .

Fries GR, McCalla G, Levitt MA, Cordova R. A prospective comparison of paramedic judgment and the trauma triage rule in the prehospital setting. Ann Emerg Med. 1994 Nov;24(5):885-9.

Literature suggests that standardized tools or algorithms may not improve triage decisions.

Qazi K, Kempf JA, Christopher NC, Gerson LW. Paramedic judgment of the need for trauma team activation for pediatric patients. Acad Emerg Med. 1998 Oct;5(10):1002-7.



Text Captions: Common Triage Methodologies Module Four:

Select Another Methodology or click "Finished"



Text Captions: Specifically used for the triage of children in the multi- casualty/disaster setting.

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Unconscious

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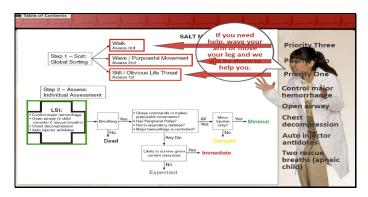
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If not ambulatory, access respiration, perfusion, and motor skills to determine if the patient should be categorized Yellow, Red, or Black.	RESPIRATIONS (INDER 30min UNDER 30min CAPILLARY (VER 2 asc.) CONTROL	
NEXT Learn more about Smort at http://www.amartmcl.com/products/triage/smart_triage_pac_php	REFILL GENER 2440 OBEYS SIMPLE COMMANDS PRIORITY 2	

Text Captions: Basic Smart Principles: Adult Victims

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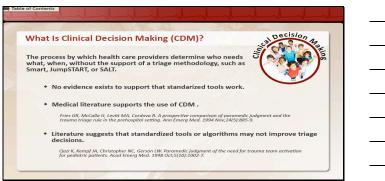
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-		

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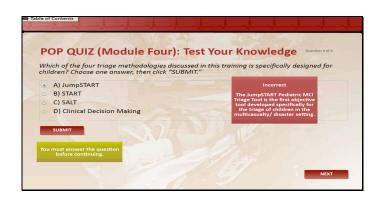
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Text Captions: POP QUIZ (Module Four): Test Your Knowledge

Which of the four triage methodologies discussed in this training is specifically designed for children? Choose one answer, then click "SUBMIT."

A) JumpSTART

B) START

C) SALT

D) Clinical Decision Making

Correct

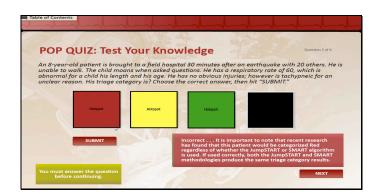
The JumpSTART Pediatric MCI Triage Tool is the first objective tool developed specifically for the triage of children in the multicasualty/ disaster setting.

Incorrect

The JumpSTART Pediatric MCI Triage Tool is the first objective tool developed specifically for the triage of children in the multicasualty/ disaster setting.

You must answer the question before continuing.

Question 4 of 6



Text Captions: POP QUIZ: Test Your Knowledge

An 8-year-old patient is brought to a field hospital 30 minutes after an earthquake with 20 others. He is unable to walk. The child moans when asked questions. He has a respiratory rate of 60, which is abnormal for a child his length and his age. He has no obvious injuries; however is tachypneic for an unclear reason. His triage category is? Choose the correct answer, then hit "SUBMIT."

Correct . . . It is important to note that recent research has found that this patient would be categorized Red regardless of whether the JumpSTART or SMART algorithm is used. If used correctly, both the JumpSTART and SMART methodologies produce the same triage category results.

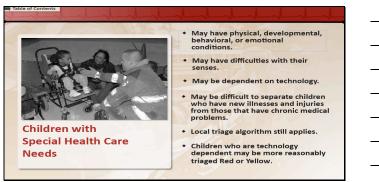
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You must answer the question before continuing.

Question 5 of 6



Text Captions: Pediatric Special Triage Situations Module Five



Text Captions: Children with Special Health Care Needs

May have physical, developmental, behavioral, or emotional conditions.

May have difficulties with their senses.

May be dependent on technology.

May be difficult to separate children who have new illnesses and injuries from those that have chronic medical problems.

Local triage algorithm still applies.

Children who are technology dependent may be more reasonably triaged Red or Yellow.



Text Captions: Children with Head Injuries

Head injury » brain swelling » intracranial hemorrhage and cerebral edema.

Assess using AVPU

Alert,

Not alert, but responsive to Voice,

Only responsive to Pain,

Unconscious

Alert and Responsive to Pain » less critical

Unconscious or inappropriate response to pain » more critical



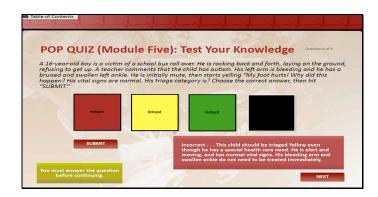
Text Captions: Preserving the Family Unit Keep family members together when possible.

Triage

Transport

Separation from parents and siblings greatly increases anxiety of child and parents. Disaster plans must address:

family triage situations reunification strategies tracking systems



Text Captions: POP QUIZ (Module Five): Test Your Knowledge

A 16-year-old boy is a victim of a school bus roll over. He is rocking back and forth, laying on the ground, refusing to get up. A teacher comments that the child has autism. His left arm is bleeding and he has a bruised and swollen left ankle. He is initially mute, then starts yelling "My foot hurts! Why did this happen? His vital signs are normal. His triage category is? Choose the correct answer, then hit "SUBMIT."

Correct . . . This child should be triaged Yellow even though he has a special health care need. He is alert and moving, and has normal vital signs. His bleeding arm and swollen ankle do not need to be treated immediately.

Incorrect . . . This child should be triaged Yellow even though he has a special health care need. He is alert and moving, and has normal vital signs. His bleeding arm and swollen ankle do not need to be treated immediately.

You must answer the question before continuing.

Question 6 of 6

Course Summary

- Children will be victims in most foreseeable disasters.
- Children respond differently to illness and injury than do adults due to their unique physiology.
- JumpSTART, SALT, and Smart address these physiologic differences.
- JumpSTART is the only triage methodology designed specifically for the pediatric patient.
- All disaster plans should incorporate the unique needs of children and their conditions (including children with special health care needs and children with head injuries.)
- Disaster plans should also address family reunification and tracking.

Slide 44

Text Captions: Course Summary

Children will be victims in most foreseeable disasters.

Children respond differently to illness and injury than do adults due to their unique physiology.

JumpSTART, SALT, and Smart address these physiologic differences.

JumpSTART is the only triage methodology designed specifically for the pediatric patient.

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Disaster plans should also address family reunification and tracking.



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Text Captions: Thank You!

You have completed the course

"Pediatric Disaster Triage: Doing the Most Good for the

Most Patients in the Least Time"

Please note: Before completing the post-assessment you will be required to submit a course evaluation. Once the evaluation is submitted, you will be automatically directed to the post-assessment. If the button does not work, go to http://emscnrc.org/EMSC_Resources/CME_Training/Disaster_Triage_Evaluation.aspx.



Text Captions: Post-assessment Results

You Scored:

{score}

Maximum Score:

{max-score}

Accuracy:

{percent}



Text Captions: Acknowledgement

This course was made possible through funding provided by the Health Resources and Services Administration, Maternal and Child Health Bureau's Emergency Medical Services for Children (EMSC) Program to:

Yale University School of Medicine, Mark Cicero, MD, Primary Investigator: Targeted Issue Grant # HRSA-10-062.

Small Victims, Big Challenges: Refining Pediatric Disaster Triage Education and Assessing Triage Algorithms in the Prehospital Setting (Mark Cicero MD, Frank Overly MD, Jorge Yarzebski BA, Marc Auerbach MD, MS, Antonio Riera MD, Linda Brown MD MSCE, David Cone MD, Carl Baum MD)

Children's National Medical Center, EMSC National Resource Center, Joseph Wright, MD, MPH, Principal Investigator: Cooperative agreement number U07MC09174