

# EMSC/CHILD READY CONNECTION NEWSLETTER

OCTOBER 2015: VOLUME 3, ISSUE 10

A word from the EMSC Program Manager:

Greetings!

The Emergency Medical Services for Children (EMSC) Program aims to ensure that emergency medical care for the ill and injured child or adolescent is well integrated into an emergency medical service system.

We work to ensure that the system is backed by optimal resources and that the entire spectrum of emergency services (*prevention, emergency response, prehospital care, hospital care, interfacility transport, and rehabilitation*) is provided to children and adolescents, no matter where they live, attend school or travel.

**THE RIGHT CARE AT THE RIGHT PLACE AT THE RIGHT TIME WITH THE RIGHT RESOURCES!**



*Child Ready Montana*- State Partnership of Regionalized Care (SPROC)

The intent of the program is to develop an accountable culturally component and assessable emergent care system for pediatric patients across Montana.

**Exciting news and events are going on this month!**

ZOMBIE PANDEMIC- COULD YOU SURVIVE?? SEE PAGE 2.

SEE THE AAP'S POLICY STATEMENT OF TELEMEDICINE-PAGE 2

HEALTH LITERACY MONTH ACTIVITIES-SEE PAGE 3.

PALS SYSTEMATIC APPROACH ALGORITHM—SEE PAGE 4.

PEDIATRIC EARLY WARNING SCORE-SEE PAGE 5 AND 6.

KEY ANATOMICAL & PHYSIOLOGICAL FEATURES OF BREATHING-PAGE 7.

**WIN** A PALS PEDIATRIC CARDIAC ARREST ALGORITHM CARD-ANSWER THE TRIVIA PAGE 9!

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## ARE YOU READY FOR THE ZOMBIE PANDEMIC???

If you're ready for a zombie apocalypse...you're ready for any emergency. CDC has released a graphic novella, "[Preparedness 101: Zombie Pandemic](#)," as a fun new way to teach the importance of emergency preparedness. Readers follow Todd, Julie, and their dog Max as a strange new disease begins spreading, turning ordinary people into zombies. The novel includes a Preparedness Checklist so that readers can get their family, workplace or school ready before disaster strikes.

## CDC Releases a Zombie Comic Book



CDC created [an official guide](#) to surviving a zombie apocalypse in the form of a downloadable comic book.

The comic, entitled *Preparedness 101: Zombie Pandemic*, was a big hit at New York Comic Con and can be [downloaded](#) for free through the CDC site.

**Ali Khan**, director of the CDC's Office of Public Health Preparedness and Response, was handing out copies of the comic at the panel "Zombie Summit: How to Survive the Inevitable Zombie Apocalypse."

While the [CDC acknowledges](#) that this is a light-hearted look at a very popular trend in entertainment, it does emphasize that some of the points made in the comic can still be applied to emergencies that might happen in real life.

Things like rounding up an emergency kit, a checklist, evacuation route, etc.

Download the comic and find other resources at <http://www.themarysue.com/cdc-zombie-comic/>

Graphics include zombies.

## AAP POLICY STATEMENT ON THE USE OF TELEMEDICINE TO ADDRESS ACCESS AND PHYSICIAN WORKFORCE SHORTAGES

The American Academy of Pediatrics' (AAP) Committee on Pediatric Workforce, including Workforce Member James Marcin, MD, MPH, California EMSC State Partnership Regionalization of Care grantee, published a [policy statement](#) in *Pediatrics* describing the expected and potential impact that telemedicine will have on pediatric physicians' efforts to improve access and physician workforce shortages.

**The policy statement also describes how AAP can advocate for its members and their patients to best use telemedicine technologies to improve access to care, provide more patient- and family-centered care, increase efficiencies in practice, enhance the quality of care, and address projected shortages in the clinical workforce.**

## OCTOBER IS HEALTH LITERACY MONTH!

It is the time for organizations and individuals to promote the importance of understandable health information. This annual worldwide awareness raising event has been going strong since Helen Osborne founded it in 1999. Over the years health care organizations, community services, health literacy coalitions, government organizations, literacy programs, universities, and many others have hosted a wide range of Health Literacy Month events. These include how-to-workshops for professionals, wellness programs for patients and the public, and educational offerings for students at all levels.

The 2015 theme is “Be A Health Literacy Hero.” It’s about taking action and finding ways to improve health communication. Health Literacy Heroes are individuals, teams, or organizations who not only identify health literacy problems but also act to solve them. You can help by recognizing and cheering on those you consider Health Literacy Heroes. For more information see <http://www.healthliteracymonth.org/>.

### Pediatrics: Best Practice

- 1. Rapid Initial, then Ongoing Assessment**  
Pediatric Assessment Triangle
- 2. Systematic, Head-to-Toe Approach**  
Treatment/Management

#### Focused Assessment

- 1<sup>st</sup> impression using the Pediatric Assessment Triangle:  
Determine urgency!  
Across the room assessment  
Allows you to assess each patient in a systematic manner

**Appearance**

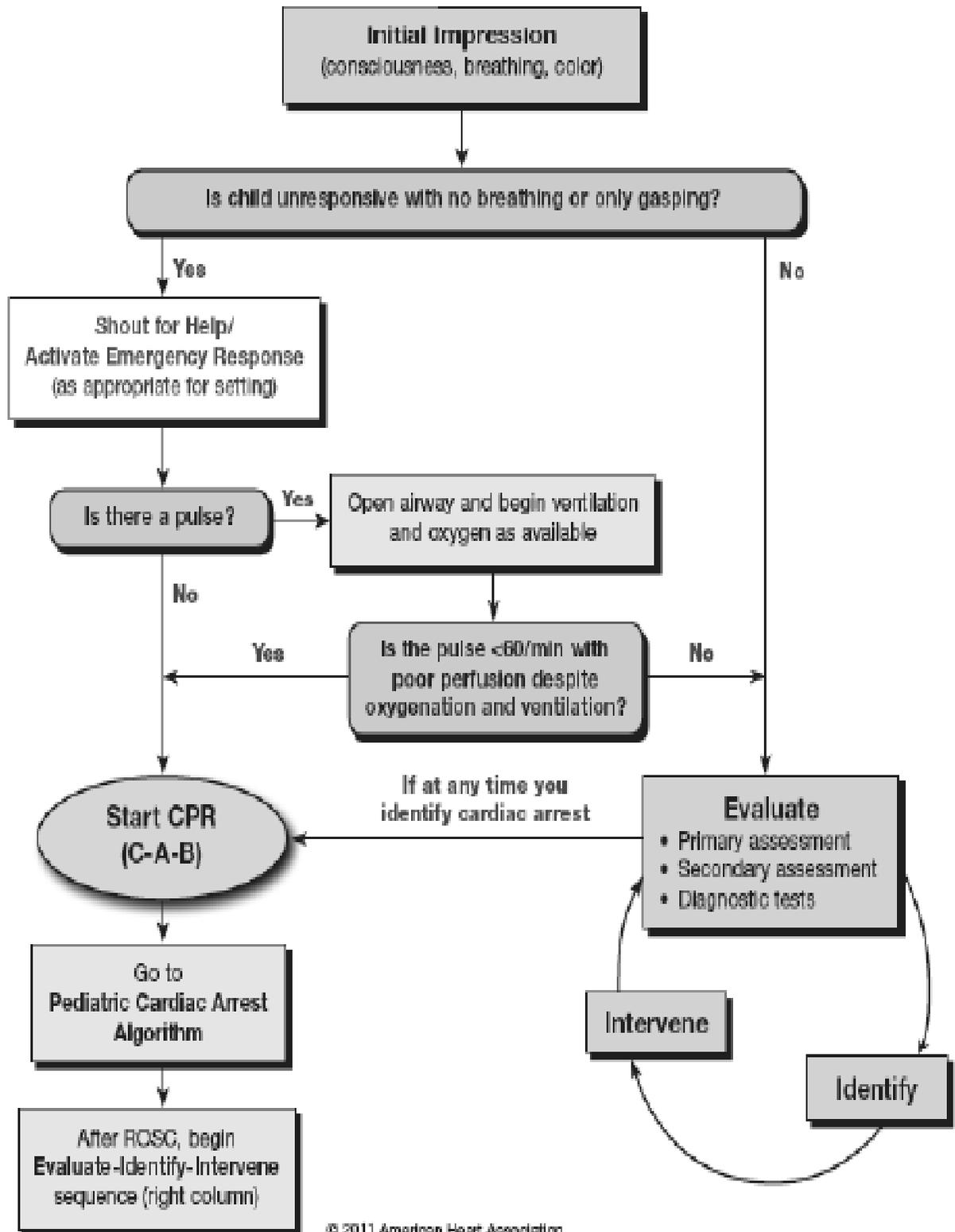
**Work of Breathing**

**Circulation to Skin**

Source: American Academy of Pediatrics, Pediatric Education for Prehospital Professionals  
Source: American Academy of Pediatrics, Pediatric Advanced Life Support

# PALS Systematic Approach Algorithm

The PALS Systematic Approach Algorithm (Figure 2) outlines the approach to caring for a critically ill or injured child.



# PEWS

## Pediatric Early Warning Score

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



Green=0-2 Score



Yellow=3 Score



Red =4 or Greater Score

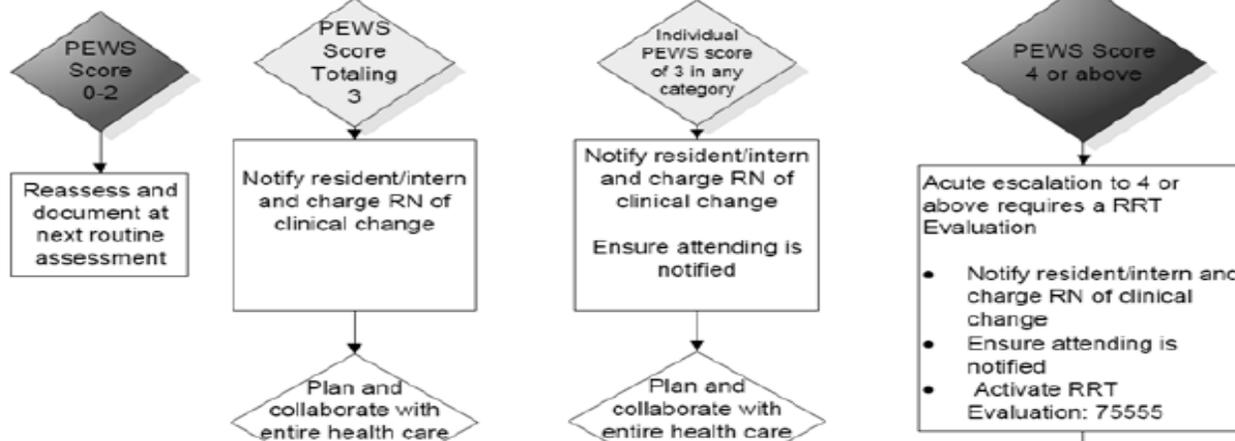
Please Note: Asthma patients on continuous albuterol nebulizers will automatically be a 3 due to respiratory status, please use clinical judgment and make sure the patient is meeting the criteria for not just tachycardia when rating their cardiovascular system

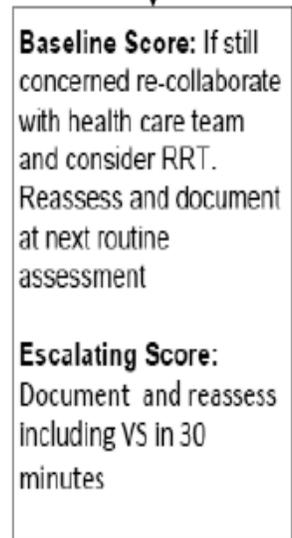
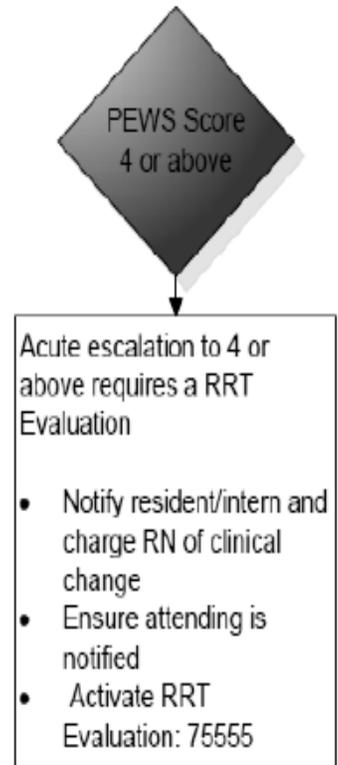
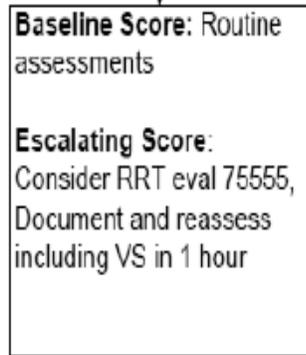
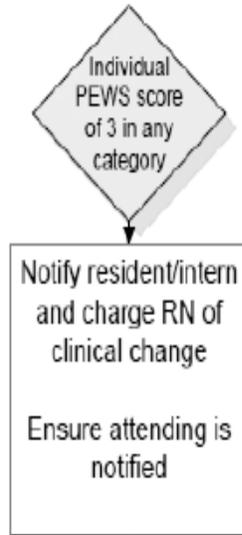
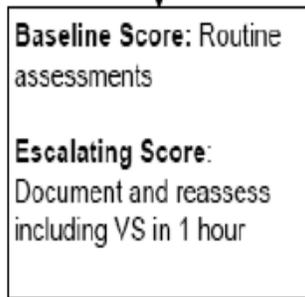
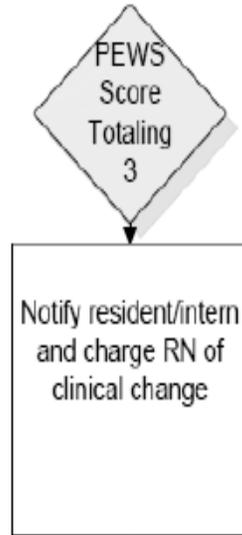
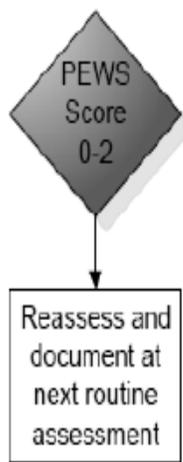
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### Pediatric Early Warning Score (PEWS) Algorithm: Inpatient

Families often know their child best. Please remember to listen to their concerns and advocate for them.

PEWS should be assessed and documented with each set of routine vital signs/assessments





\*\*\*Patients may be admitted to the inpatient areas with an elevated PEWS to 4 or above, without requiring an RRT on arrival to the floor if all of the care team members are in agreement

# Key Anatomical & Physiological Features

## BREATHING



### Characteristics:

- Faster respiratory rate
- Thin chest wall
- Cartilaginous sternum/ribs
- Poorly developed intercostal muscles
- Ribs more horizontal

### Clinical Implications:

- Younger they are, the faster they breathe
- More rapid RR and less efficient use of **oxygen/glucose.**
- Rely on diaphragm for respirations
- Less protection for lungs and structures in upper abdomen

## Early vs late respiratory distress



### Early signs



- Nasal flaring
- Intercostal, supraclavicular, and subcostal retractions
- Neck muscle use
- Audible noises: stridor, wheezing
- “see-saw” respirations

### Late signs

- RR >60
- Cyanosis
- Decreased muscle tone
- Severe accessory muscle use (sternal retractions)
- Poor peripheral perfusion
- Altered mental status
- Grunting
- Head bobbing

### Early signs of respiratory distress



Intercostal retractions:  
<http://www.youtube.com/watch?v=bAkPyXVrTLO>

Subcostal retractions:  
<http://www.youtube.com/watch?v=edllubtOylo>

### Late signs

Sternal retractions:  
<http://www.youtube.com/watch?v=QkaX83H31QY>

Head bobbing:  
<http://www.youtube.com/watch?v=qObHwMayCJY>



**RESOURCES TO VIEW AND HEAR THE EARLY AND LATE SIGNS OF RESPIRATORY DISTRESS IN CHILDREN .**

## CHILDREN AND HAND SANITIZERS- CAUTION REQUIRED!

Poison control centers have seen a nearly 400 percent jump in calls related to children under 12 ingesting hand sanitizer since 2010, according to [CNN](#). Calls increased from 3,266 in 2010 to 16,117 last year. The findings come from an analysis by the Georgia Poison Center. "Kids are getting into these products more frequently, and unfortunately, there's a percentage of them going to the emergency room," Dr. Gaylord Lopez, the center's director, told CNN.

**The amount of alcohol in hand sanitizer can vary from 45 percent to 95 percent, the article notes. In contrast, wine contains about 12 percent alcohol, while beer contains about 5 percent. In some cases, ingesting as little as two to three squirts of hand sanitizer can cause alcohol poisoning.**

A child with alcohol poisoning from hand sanitizer can experience confusion, vomiting and drowsiness. A child with a severe case of alcohol poisoning can stop breathing.

Children ingest hand sanitizer for a variety of reasons. They may be trying to get drunk, doing it on a dare, or drinking it because it looks like it would taste good.

"A kid is not thinking this is bad for them," Lopez said. "A lot of the more attractive (hand sanitizers) are the ones that are scented. There are strawberry, grape, orange-flavored hand sanitizers that are very appealing to kids." He advises parents and teachers to store hand sanitizer in a place where children cannot reach it, and monitor its use.

Sanitizing wipes or non-alcohol based products are alternatives to hand sanitizers.

<http://www.cnn.com/2015/09/14/health/hand-sanitizer-poisoning/index.html>



### CHILD READY MONTANA

**Child Ready Montana** is a State Partnership Regionalization of Care Grant (SPROC) funded by the Federal Health Resource and Services Administration (HRSA). Montana is one of 6 states to be awarded this grant with the Montana Emergency Medical Services for Children (EMSC) Program.

Child Ready MT

Getting your ER ready for recognition for Pediatric Prepared or Capable requires team work and collaboration of all staff.

Our Nurses here in Montana are champions on all levels; they help prepare patients and work tirelessly to maintain many standards throughout their facility. EMSC and Child Ready MT are working to schedule many hospitals in Montana for site reviews.

Child Ready and EMSC will come to your facility and work with you to meet the pediatric standards of care in the ED. Consider becoming pediatric prepared or pediatric capable. Contact Robin Suzor at 444-0901 or Kassie Runsabove at 238-6216.

Upcoming Education:

- Watch for St. Vincent Healthcare Pediatric Grand Rounds contact [phtnschedule@sclhs.net](mailto:phtnschedule@sclhs.net)
- Mock Codes can be schedules through Kassie Runsabove 238-6216 or [Kassie.runsabove@sclhs.net](mailto:Kassie.runsabove@sclhs.net)
- Cultural Sensitivity Webinar scheduled for November 19<sup>th</sup>, 2015 12-1:00 pm registration information coming soon.

Kassie Runsabove

406-238-6216

[Kassie.runsabove@sclhs.net](mailto:Kassie.runsabove@sclhs.net)



## TRIVIA CONTEST:

Answer the trivia and win a pack of "Pediatric Cardiac Arrest Algorithm" PALS cards. **First 3** to answer wins this great resource! Email the answers to [rsuzor@mt.gov](mailto:rsuzor@mt.gov).

1. What is PEWS?
2. Name 2 differences between early and late respiratory distress.
3. What is the amount of alcohol in hand sanitizers?

## TRAINING RESOURCES:



Centers for Disease Control and Prevention  
Your Online Source for Credible Health Information

Did you know that American Indians and Alaska Natives (AI/AN) have the highest motor vehicle-related death rates of all racial and ethnic groups, with rates two to three times greater than all other Americans?

CDC in partnership with the Indian Health Service (IHS) developed the *Roadway to Safer Tribal Communities Toolkit* to provide materials including fact sheets, posters and a video to help prevent crash-related injuries and deaths among members of tribal nations. These materials focus on important steps for road safety including:

- increasing proper child safety seat use;
- increasing seat belt use; and
- decreasing alcohol-impaired driving.

Check out the video "[A Killer in Indian Country](#)" to hear personal stories and learn more about major risks and effective strategies to help prevent injuries and deaths among American Indians and Alaska Natives.

Visit the [Tribal Road Safety](#) website for the *Roadway to Safer Tribal Communities Toolkit* and additional information!

