

PEDIATRIC EMERGENCY CARE



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DISCLOSURES

- I have no relevant financial disclosures



OBJECTIVES

- Define pediatric emergency care and acute health issues in children
- Describe and identify common pediatric emergencies, including respiratory issues, trauma, infections, and allergic reactions
- Present evidence-based protocols and guidelines for managing pediatric emergencies, emphasizing the importance of timely and appropriate interventions.
- Discuss how cultural beliefs and socioeconomic factors influence pediatric emergency care practices and access to care globally.
- Encourage discussion of innovative approaches to enhance pediatric care delivery, such as telemedicine and mobile health solutions.



GLOBAL EMERGENCY CARE



Image: University of Washington FPECC Program



PEDIATRIC CARE NEEDS

- Currently, 4 pediatric critical care- and 1 pediatric emergency medicine-trained doctors in Kenya serve a population of 17 million children under 14 years of age.
- The 2 pediatric critical care training programs in Africa are at capacity and unable to meet the region's growing needs.
- **Despite success in decreasing global child mortality, 15,000 children in resource-limited settings die each day from preventable causes.**



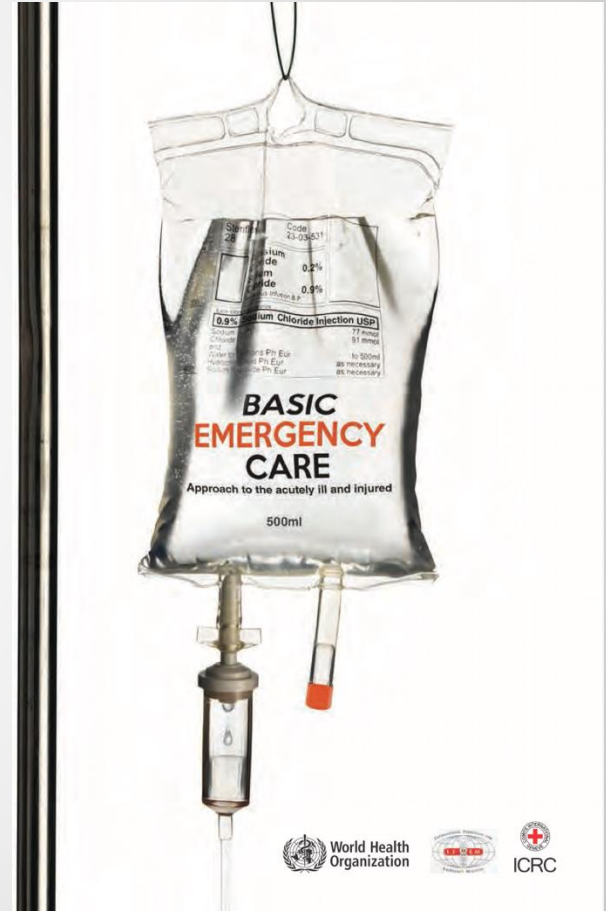
LEADING CAUSES OF DEATH

- Many leading causes of pediatric death can be prevented by simple, timely, and appropriate pediatric critical care:
 - Severe dehydration
 - Infection/sepsis (including severe Malaria)
 - Accidents and trauma
 - Good and consistent trauma and critical care have been obscured by the huge burden of other medical problems, lack of access to care, and limited experience with pediatric emergency/critical care.



PREPARING FOR EMERGENCIES

- Having a clear plan, practicing it, and maintaining emergency resources are critical to responding quickly and appropriately.
- WHO Basic Emergency Course has created training (with many similar concepts to our AHA, ATLS, etc.) to create a clear, repeatable plan to standardize emergency care



TRIAGE

- WHO created the *Emergency Triage, Assessment and Treatment (ETAT)* system for children.
- The Integrated Management of Childhood Illness (IMCI) provides simplified guidance to improve the identification and rapid initiation of critically ill children.
- Regardless of the triage scale used all staff should be trained to the same standards.

TRIAGE CATEGORIES

1

EMERGENCY

Those with emergency signs require **immediate** emergency treatment.

2

PRIORITY

Those with priority signs should be given priority in queue for **rapid** assessment and treatment.

3

NON-URGENT

Those who have no emergency or priority signs are **non-urgent** cases and can wait their turn for assessment and treatment.



World Health
Organization
Representative Office
for the Philippines



INTERAGENCY INTEGRATED TRIAGE TOOL: Age < 12



1

CHECK FOR RED CRITERIA

- Unresponsive

AIRWAY & BREATHING

- Stridor
- Respiratory distress* or central cyanosis

CIRCULATION

- Capillary refill >3 sec
- Weak and fast pulse
- Heavy bleeding
- Cold extremities
- Any two of:
 - Lethargy
 - Sunken eyes
 - Very slow skin pinch
 - Drinks poorly

DISABILITY

- Active convulsions
- Altered mental status (confused, restless, continuously irritable or lethargic) with stiff neck, hypothermia or fever
- Hypoglycaemia (if known)

OTHER

- Any infant <8 days old
- Age <2 months and temp <36 or >39°C
- High-risk trauma*
- Threatened limb*
- Acute testicular/scrotal pain or priapism
- Snake bite
- Poisoning/ingestion or dangerous chemical exposure*
- Pregnant with adult red criteria

YES

MOVE TO HIGH ACUITY RESUSCITATION AREA IMMEDIATELY

2

CHECK FOR YELLOW CRITERIA

AIRWAY & BREATHING

- Any swelling/mass of mouth, throat or neck
- Wheezing (no red criteria)

CIRCULATION

- Unable to feed or drink
- Vomits everything
- Ongoing diarrhoea
- Dehydration
- Severe pallor (no red criteria)

DISABILITY

- Restless, continuously irritable or lethargy
- Severe pain

OTHER

- Any infant 8 days to 6 months old
- Malnutrition with visible severe wasting OR oedema of both feet
- Trauma/burn (no red criteria)
- Sexual assault
- Known diagnosis requiring urgent surgical intervention
- New rash worsening over hours or peeling (no red criteria)
- Exposure requiring time-sensitive prophylaxis (e.g. animal bite)
- Pregnancy (no red criteria)
- Headache (no red criteria)

YES

MOVE TO CLINICAL TREATMENT AREA



Patients with high-risk vital signs or clinical concern need up-triage or immediate review by supervising clinician

YES

3

CHECK FOR HIGH-RISK VITAL SIGNS

Temp <36° or >39°

SpO2 < 92%

AVPU other than A

RR	< 1 year	1-4 years	5-12 years
High	50	40	30
Low	25	20	10
HR	< 1 year	1-4 years	5-12 years
High	180	160	140
Low	< 90	< 80	< 70

NO

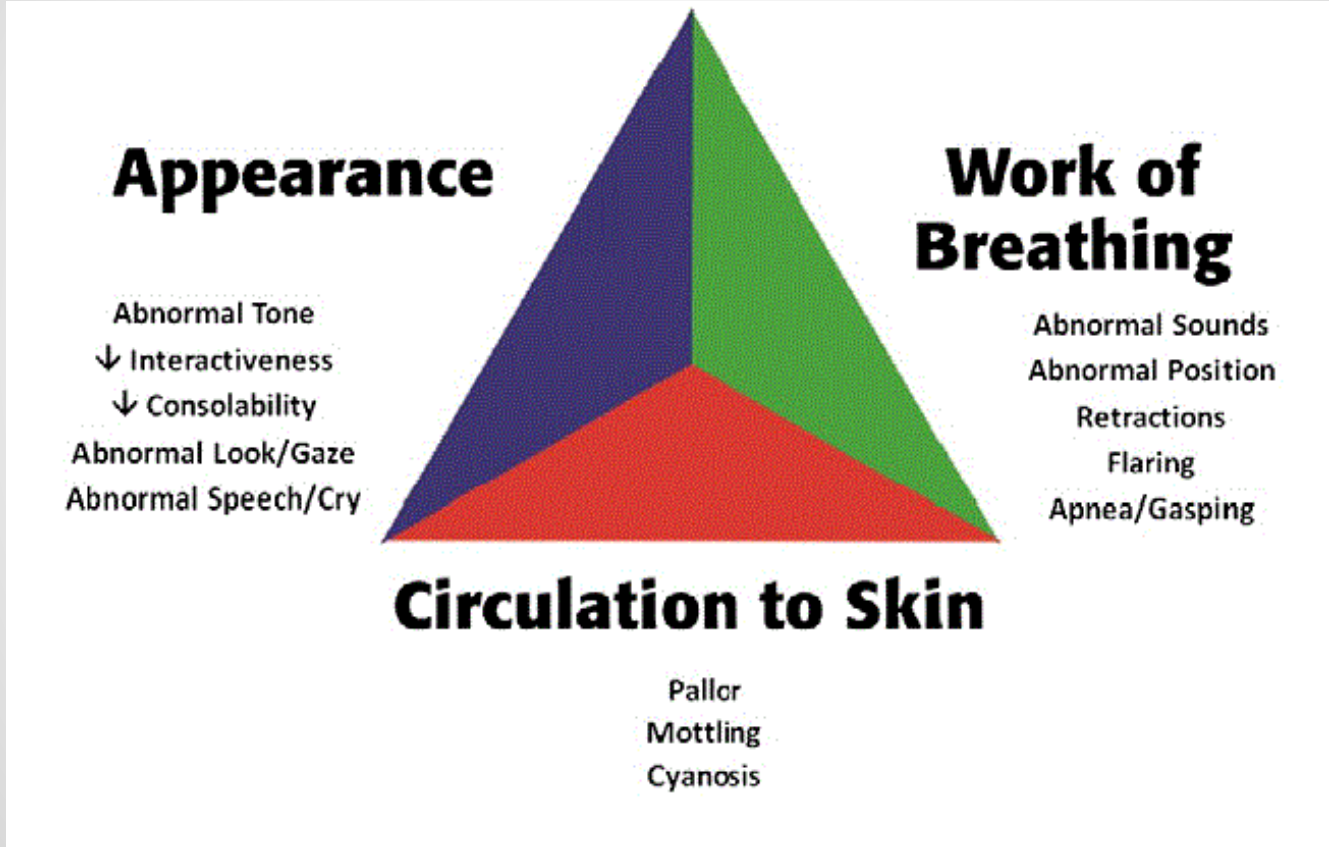
MOVE TO LOW ACUITY OR WAITING AREA

TRIAGE



*See Reference Card

PEDIATRIC ABCS



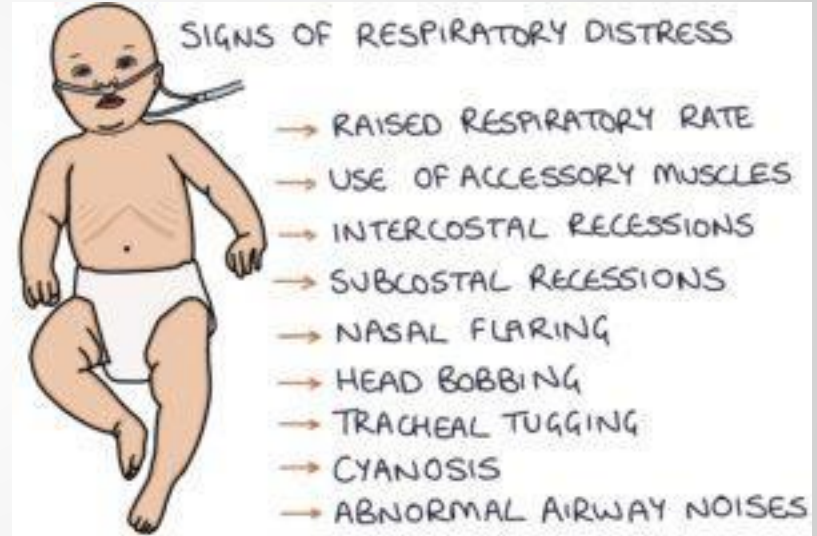
PEDIATRIC EMERGENCY PEARLS



PEDIATRIC CONSIDERATIONS

AIRWAY/BREATHING

- Children are far more likely to suffer from conditions of respiratory distress/failure than cardiovascular.
- Good Airway and respiratory assessment is critical and in any critically ill child, oxygen should be applied judiciously.
- In pediatric emergencies, crying is always a good sign!



PEDIATRIC AIRWAY CONSIDERATIONS

Compared to adults, children have:

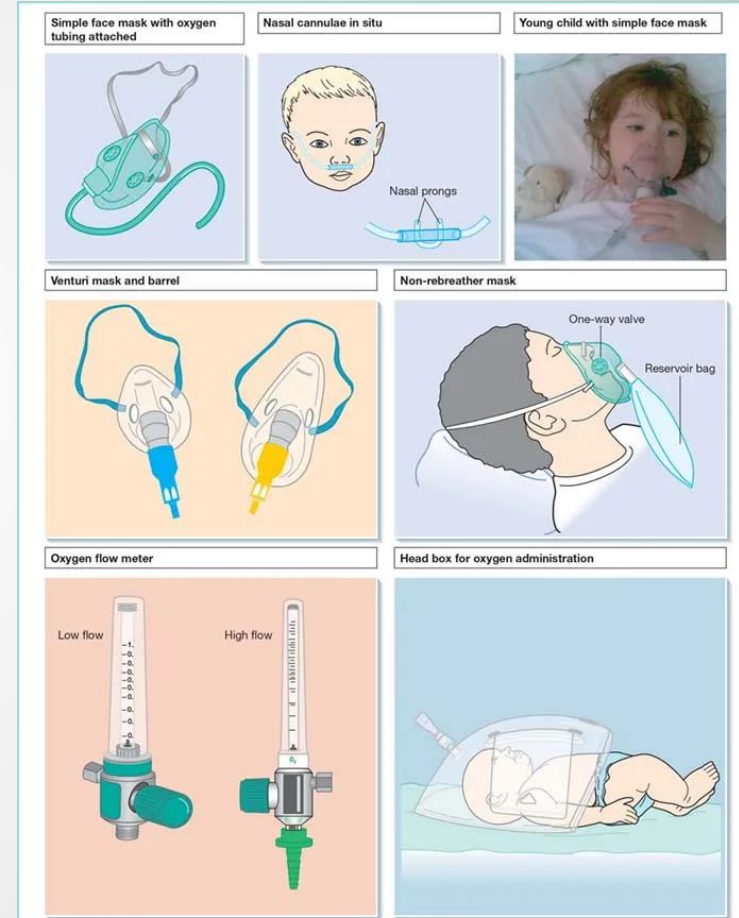
- Bigger tongues
 - Use the “sniffing” position
- Shorter necks, softer airways
 - Easier to block off
 - Avoid over-extending the neck
- A larger head compared to the body
 - Watch closely for airway obstruction
 - Use jaw thrust
 - Correct head position with padding under the shoulders to open the airway



Excessive drooling, stridor, airway swelling, unwillingness to move neck are high-risk signs in children!

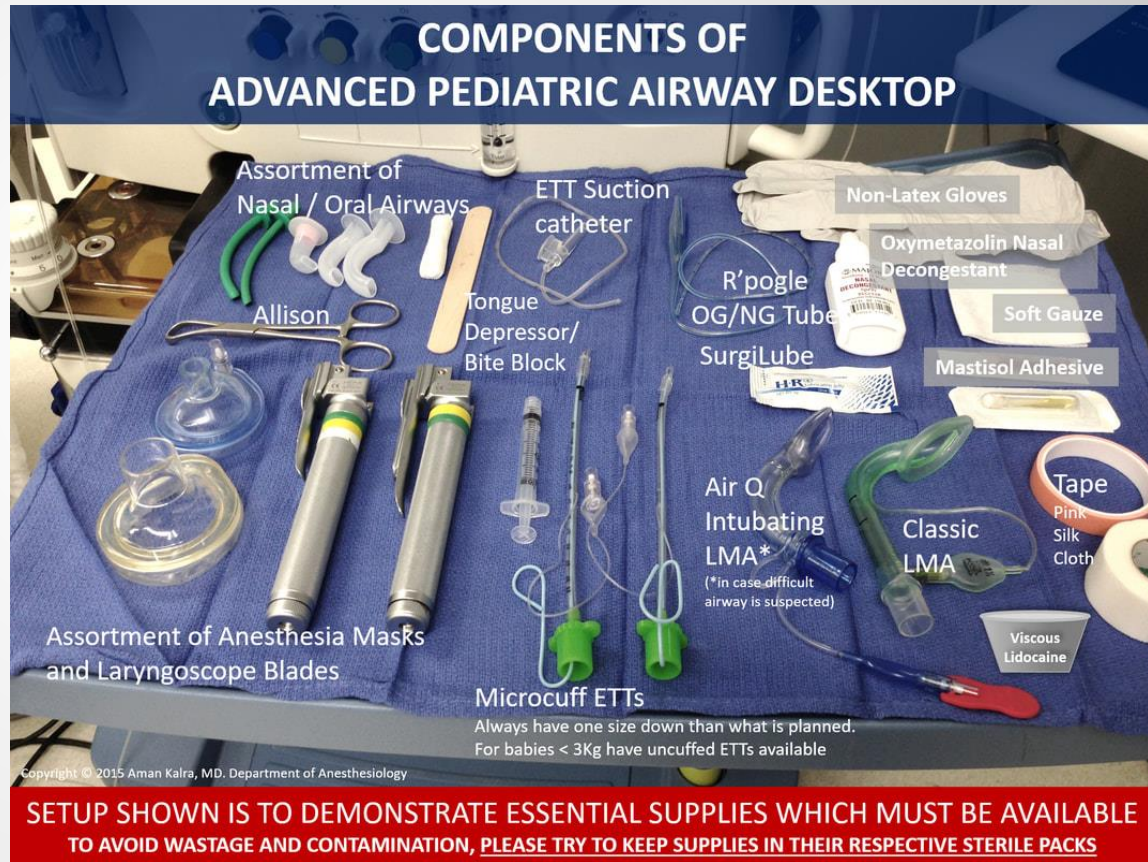
AIRWAY/BREATHING

- Always intervene before continuing your assessment!
- Always provide oxygen – preferably non-rebreather.
- Open the airway
- Remove visible foreign body
- Ventilate with bag and mask
- If prolonged bagging, consider advanced airway if qualified personnel and equipment.



AIRWAY/BREATHING

- Indications for advanced airway:
 - Prolonged bagging
 - Severe hypoxemia
 - Neurologic deficit without respiratory drive.
 - Reduce metabolic demands in severe shock.



SETUP SHOWN IS TO DEMONSTRATE ESSENTIAL SUPPLIES WHICH MUST BE AVAILABLE TO AVOID WASTAGE AND CONTAMINATION, PLEASE TRY TO KEEP SUPPLIES IN THEIR RESPECTIVE STERILE PACKS

BROSELOW TAPE

A tool utilized in pediatric emergency settings to quickly and accurately assess a child's size/weight for equipment, medication dosages, critical vital signs, etc.



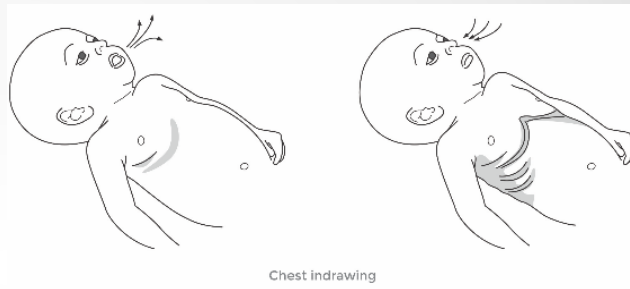
BROSELOW TAPE



BREATHING CONSIDERATIONS

Look for signs of respiratory distress :

- Nasal flaring
- Head bobbing
- Grunting
- Chest indrawing or retractions
- Cyanosis, a blue/gray discoloration around lips, mouth or fingertips, is a danger sign



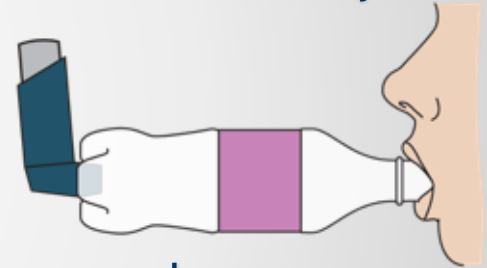
Look at the lower ribs

- Chest indrawing occurs when the lower chest wall moves inward during inspiration.
- In normal breathing, the chest and abdomen move outward as the child inhales.

BREATHING CONSIDERATIONS

Listen

- *Silent chest* is a sign of severe distress in a child
 - Severe spasms and airway narrowing cause limited airway movement, and few or no breath sounds may be heard.
 - Give Bronchodilator and OXYGEN.
 - Reassess frequently.
- *Stridor* is a sign of severe airway compromise
 - Put child in position of comfort, decrease painful stimuli
 - Plan for rapid HANDOVER/TRANSFER.
 - Give nebulized ADRENALINE/Epinephrine.
 - If unable to transfer, consider IM ADRENALINE



















CIRCULATION

- For most core temp not needed in emergency.
- Give oxygen if not already applied.
- Check Cap refill (> 3 seconds)
- Check pulse
- Check for severe malnutrition.
- Check for injury or bleeding.



CIRCULATION

- Stop any bleeding
- If no malnutrition: give crystalloid IV fluids rapidly (20mg/kg bolus)
- If unable to get IV, place IJ or IO
- If malnutrition: assess if child can take oral or NGT fluids
- Check blood glucose

NORMAL VITAL SIGNS IN PEDIATRICS BY AGE			
		Infant 0-12 months	
		Normal Range	
Heart Rate		100 - 180	
Blood Pressure		$\frac{72 - 104}{37 - 56}$	
Respirations		30 - 53	
		Toddler 1-2 years	
		Normal Range	
Heart Rate		90 - 140	
Blood Pressure		$\frac{86 - 106}{42 - 63}$	
Respirations		20 - 37	
		Preschooler 3-5 years	
		Normal Range	
Heart Rate		80 - 120	
Blood Pressure		$\frac{89 - 112}{46 - 72}$	
Respirations		20 - 28	
		School-Age Child 6-9 years	
		Normal Range	
Heart Rate		75 - 118	
Blood Pressure		$\frac{97 - 115}{57 - 76}$	
Respirations		18 - 25	

CIRCULATION CONSIDERATIONS



Low blood pressure in a child is a sign of severe shock

- Children maintain normal blood pressure longer than adults, but then decompensate quickly.
- Monitor other signs of poor perfusion.
 - Decreased urine output
 - Sunken fontanelle, poor skin turgor, lethargy, altered mental status



Rate, volume, and type of IV fluid depend on body weight, the cause of poor perfusion, and the child's nutritional status.

Malnourished children require careful fluid management!



COMA/CONVULSION

- Intervene rapidly for children who are not awake/alert.
- Manage airway
- If convulsing, give rectal diazepam
- Stabilize neck if trauma is suspected
- Check blood sugar

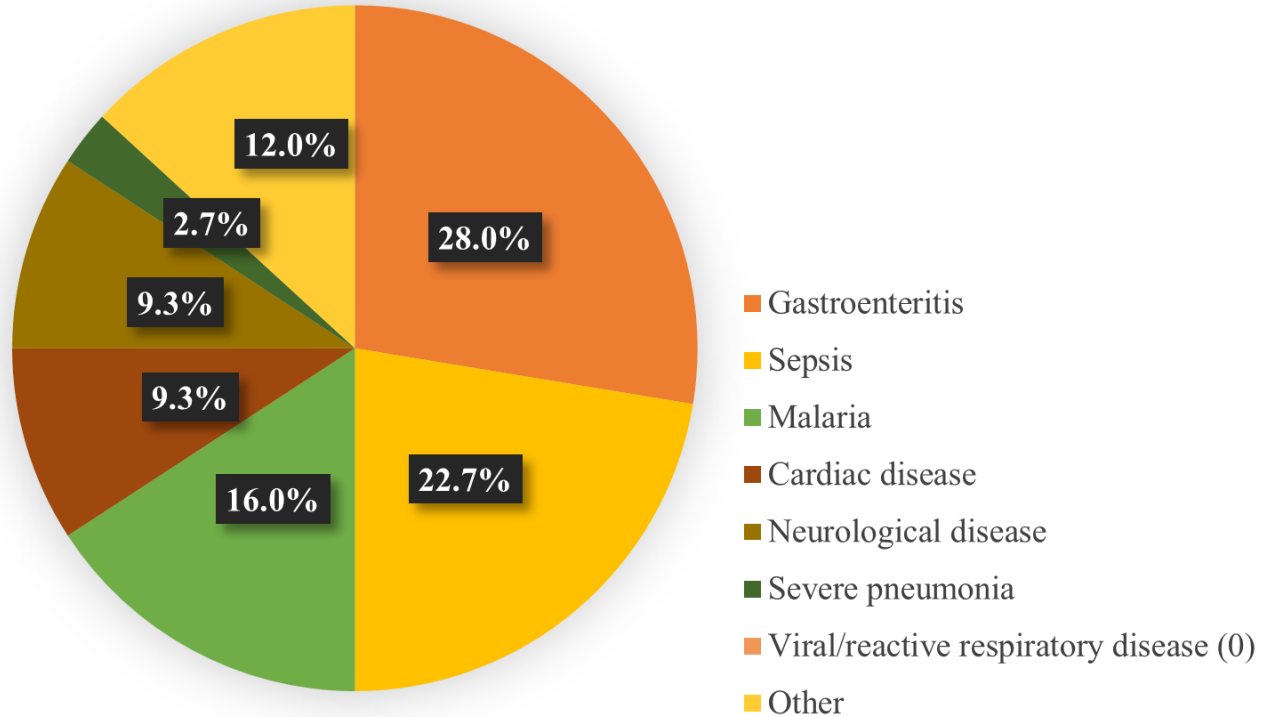
Table 1. Shock Types and Subtypes

Type of Shock	Subtypes of Shock
Distributive shock	<ul style="list-style-type: none">• Septic shock• Anaphylactic shock• Neurogenic shock
Cardiogenic shock	<ul style="list-style-type: none">• Heart failure• Dilated cardiomyopathy• Kawasaki disease• Multisystem inflammatory syndrome in children
Obstructive shock	<ul style="list-style-type: none">• Cardiac tamponade• Constrictive pericarditis• Pulmonary embolism• Tension pneumothorax
Hypovolemic shock	<ul style="list-style-type: none">• Blood loss: hemorrhagic shock• Fluid loss: vomiting/diarrhea

DEHYDRATION (DIARRRHEA)

- Diarrhea plus any of the following:
 - Lethargy
 - Sunken eyes
 - Skin tenting
- Warm the child
- Treat shock if present
- Start oral fluids as soon as able

Diagnostic categories amongst children with shock that died



DISABILITY CONSIDERATIONS

Low blood glucose is a common cause of altered mental status in a sick child.

- When possible, check blood glucose.
- When not possible, give GLUCOSE .



Always check blood glucose with seizures or convulsions.

It may be difficult to determine whether a young child is behaving normally. Ask family members or friends to provide this information.



EXPOSURE CONSIDERATIONS



Infants/children have trouble maintaining temperature and can become hypothermic or hyperthermic quickly.

- Remove wet clothing and dry skin thoroughly.
- Provide skin-to-skin contact for infants.
- If concerned about hypothermia → Cover very small children's heads
- If concerned about hyperthermia → Unbundle tightly wrapped babies

CARDIOPULMONARY ARREST

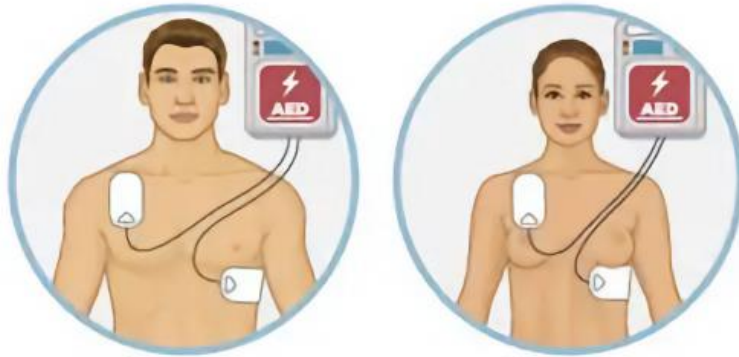
- Cardiac arrest is most commonly result of respiratory failure or shock leading to severe hypoxia.
- Pediatrics: 1-rescuer vs. 2-rescuer CPR.
- Shock if rhythm strip (or AED) indicates
- Use pediatric pads if available; otherwise, place 1 pad in front and 1 in back.
- Prompt and skillful response makes the difference between life and death.



CARDIOPULMONARY ARREST

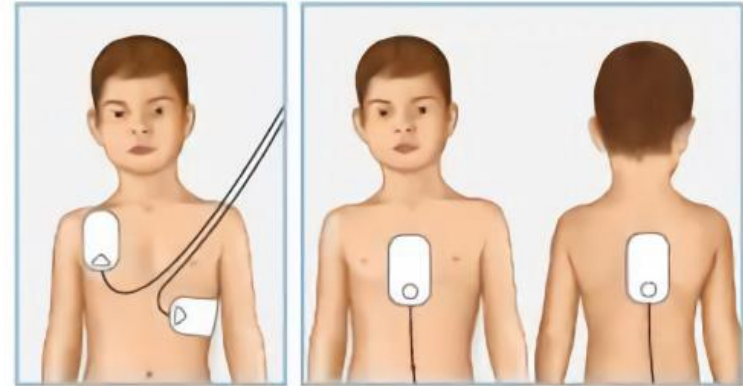
AED Pad Positions

Adult & Child > 8 years



Same pad position for both male/female adult and older child

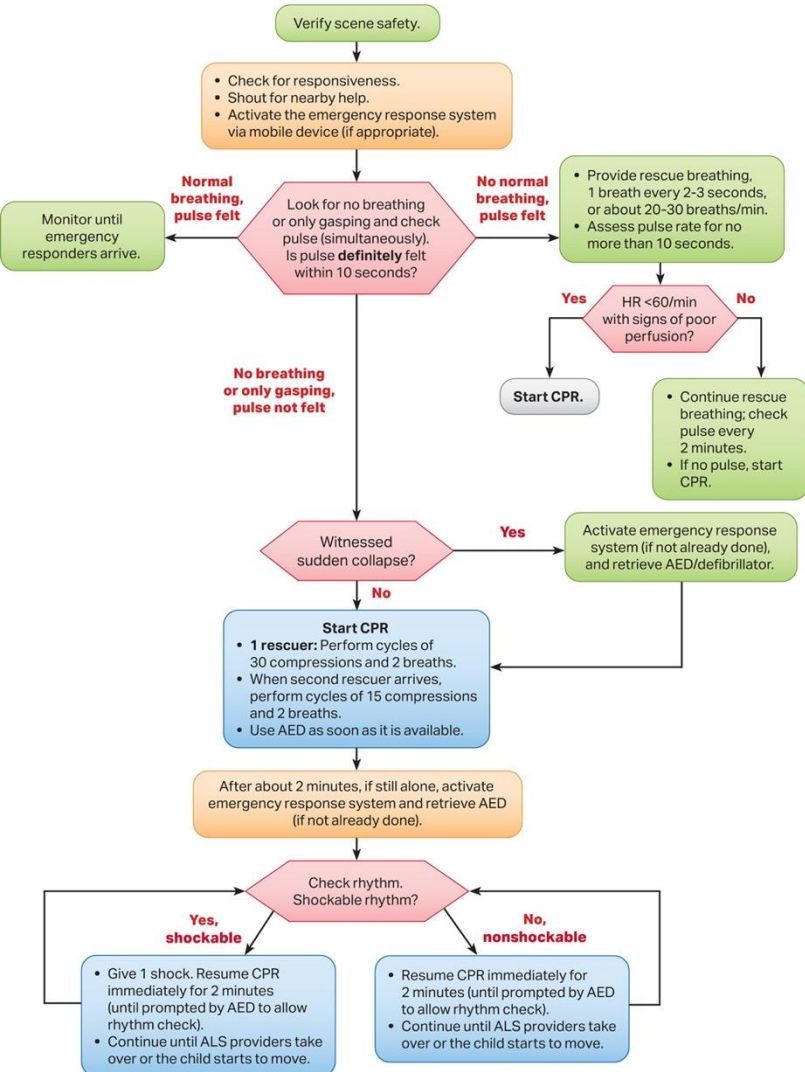
Child < 8 years



Pad position for male/female child

Alternate position for male/female child if the pads would touch

ED



CARDIAC ARREST ALGORITHM



ASSESS ALL CHILDREN FOR THE PRESENCE OF DANGER SIGNS !

A child with danger signs needs urgent attention!

- Signs of airway obstruction
- Increased breathing effort
- Cyanosis
- Altered mental status
- Moves only when stimulated or no movement (AVPU other than "A")
- Not feeding well/ cannot drink or breastfeed
- Vomiting everything
- Seizures/convulsions
- Low body temperature (hypothermia)

PEDIATRIC DANGER SIGNS

DANGER SIGNS in CHILDREN

- Signs of airway obstruction (unable to swallow saliva/drooling or stridor)
- Increased breathing effort (fast breathing, nasal flaring, grunting, chest indrawing or retractions)
- Cyanosis (blue colour of the skin, especially at the lips and fingertips)
- Altered mental status (including lethargy or unusual sleepiness, confusion, disorientation)
- Moves only when stimulated or no movement at all (AVPU other than "A")
- Not feeding well, cannot drink or breastfeed or vomiting everything
- Seizures/convulsions
- Low body temperature (hypothermia)

ESTIMATED WEIGHT in KILOGRAMS for CHILDREN 1–10 YEARS OLD:

$$[\text{age in years} + 4] \times 2$$



COMMON PEDIATRIC EMERGENCIES

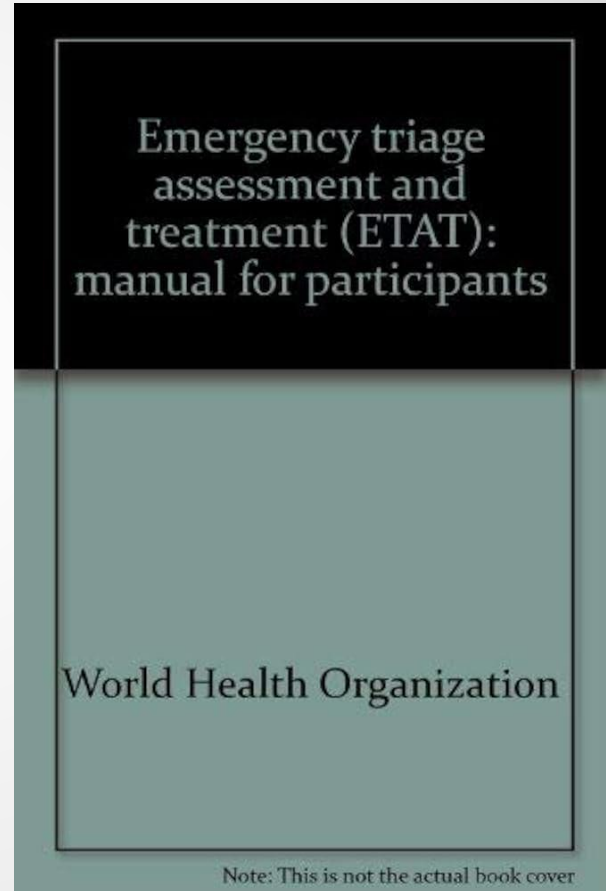
- Respiratory Distress
- Circulation/shock/dehydration
 - Injury Trauma
 - Infection/Sepsis
 - Underlying Conditions
- Seizure/Neurologic
- Allergic Reaction/Anaphylaxis
- Injury/Trauma



Image: <https://www.unitekemt.com/blog/most-common-pediatric-emt-emergencies/>.

COMMON PEDIATRIC EMERGENCIES

- Emergency Triage Assessment and Treatment (ETAT) guidelines were developed by the WHO to standardize and improve care for sick children.
- They can be downloaded or purchased on Amazon.



COMMON PEDIATRIC EMERGENCIES

- Standardized, systematized care leads to earlier recognition of pediatric warning signs, improved interventions, and more rapid treatment for the most common pediatric emergencies.
- Algorithms and treatment guidelines should be placed or readily available in areas where emergency care is provided.
- Care providers should practice scenarios and regularly refresh their skills with re-training or recertification.



COMMON PEDIATRIC EMERGENCIES

THEN ASK ABOUT MAIN SYMPTOMS:

Does the child have cough or difficult breathing?

If yes, ask:

- For how long?

Look, listen, feel*:

- Count the breaths in one minute.
- Look for chest indrawing.
- Look and listen for stridor.
- Look and listen for wheezing.

CHILD
MUST BE
CALM

If wheezing with either fast breathing or chest indrawing:

Give a trial of rapid acting inhaled bronchodilator for up to three times 15-20 minutes apart. Count the breaths and look for chest indrawing again, and then classify.

If the child is:

2 months up to 12 months

12 Months up to 5 years

Fast breathing is:

50 breaths per minute or more

40 breaths per minute or more

Classify
**COUGH or
DIFFICULT
BREATHING**

<ul style="list-style-type: none"> • Any general danger sign or • Stridor in calm child. 	Pink: SEVERE PNEUMONIA OR VERY SEVERE DISEASE	<ul style="list-style-type: none"> ■ Give first dose of an appropriate antibiotic ■ Refer URGENTLY to hospital**
<ul style="list-style-type: none"> • Chest indrawing or • Fast breathing. 	Yellow: PNEUMONIA	<ul style="list-style-type: none"> ■ Give oral Amoxicillin for 5 days*** ■ If wheezing (or disappeared after rapidly acting bronchodilator) give an inhaled bronchodilator for 5 days**** ■ If chest indrawing in HIV exposed/infected child, give first dose of amoxicillin and refer. ■ Soothe the throat and relieve the cough with a safe remedy ■ If coughing for more than 14 days or recurrent wheeze, refer for possible TB or asthma assessment ■ Advise mother when to return immediately ■ Follow-up in 3 days
<ul style="list-style-type: none"> • No signs of pneumonia or very severe disease. 	Green: COUGH OR COLD	<ul style="list-style-type: none"> ■ If wheezing (or disappeared after rapidly acting bronchodilator) give an inhaled bronchodilator for 5 days**** ■ Soothe the throat and relieve the cough with a safe remedy ■ If coughing for more than 14 days or recurrent wheezing, refer for possible TB or asthma assessment ■ Advise mother when to return immediately ■ Follow-up in 5 days if not improving

*If pulse oximeter is available, determine oxygen saturation and refer if < 90%.

** If referral is not possible, manage the child as described in the pneumonia section of the national referral guidelines or as in WHO Pocket Book for hospital care for children.

***Oral Amoxicillin for 3 days could be used in patients with fast breathing but no chest indrawing in low HIV settings.

**** In settings where inhaled bronchodilator is not available, oral salbutamol may be tried but not recommended for treatment of severe acute wheeze.

COMMON PEDIATRIC EMERGENCIES

Does the child have diarrhoea?

If yes, ask:

- For how long?
- Is there blood in the stool?

Look and feel:

- Look at the child's general condition. Is the child:
 - ◊ Lethargic or unconscious?
 - ◊ Restless and irritable?
- Look for sunken eyes.
- Offer the child fluid. Is the child:
 - ◊ Not able to drink or drinking poorly?
 - ◊ Drinking eagerly, thirsty?
- Pinch the skin of the abdomen. Does it go back:
 - ◊ Very slowly (longer than 2 seconds)?
 - ◊ Slowly?

Classify **DIARRHOEA**

for **DEHYDRATION**

Two of the following signs: <ul style="list-style-type: none"> • Lethargic or unconscious • Sunken eyes • Not able to drink or drinking poorly • Skin pinch goes back very slowly. 	Pink: SEVERE DEHYDRATION	<ul style="list-style-type: none"> ■ If child has no other severe classification: <ul style="list-style-type: none"> ◊ Give fluid for severe dehydration (Plan C) OR ■ If child also has another severe classification: <ul style="list-style-type: none"> ◊ Refer URGENTLY to hospital with mother giving frequent sips of ORS on the way ◊ Advise the mother to continue breastfeeding ■ If child is 2 years or older and there is cholera in your area, give antibiotic for cholera
Two of the following signs: <ul style="list-style-type: none"> • Restless, irritable • Sunken eyes • Drinks eagerly, thirsty • Skin pinch goes back slowly. 	Yellow: SOME DEHYDRATION	<ul style="list-style-type: none"> ■ Give fluid, zinc supplements, and food for some dehydration (Plan B) ■ If child also has a severe classification: <ul style="list-style-type: none"> ◊ Refer URGENTLY to hospital with mother giving frequent sips of ORS on the way ◊ Advise the mother to continue breastfeeding ■ Advise mother when to return immediately ■ Follow-up in 5 days if not improving
Not enough signs to classify as some or severe dehydration.	Green: NO DEHYDRATION	<ul style="list-style-type: none"> ■ Give fluid, zinc supplements, and food to treat diarrhoea at home (Plan A) ■ Advise mother when to return immediately ■ Follow-up in 5 days if not improving

and if diarrhoea 14 days or more

• Dehydration present.	Pink: SEVERE PERSISTENT DIARRHOEA	<ul style="list-style-type: none"> ■ Treat dehydration before referral unless the child has another severe classification ■ Refer to hospital
• No dehydration.	Yellow: PERSISTENT DIARRHOEA	<ul style="list-style-type: none"> ■ Advise the mother on feeding a child who has PERSISTENT DIARRHOEA ■ Give multivitamins and minerals (including zinc) for 14 days ■ Follow-up in 5 days

and if blood in stool

• Blood in the stool.	Yellow: DYSENTERY	<ul style="list-style-type: none"> ■ Give ciprofloxacin for 3 days ■ Follow-up in 3 days
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COMMON PEDIATRIC EMERGENCIES

Does the child have fever?

(by history or feels hot or temperature 37.5°C* or above)

If yes:

Decide Malaria Risk: high or low

Then ask:

- For how long?
- If more than 7 days, has fever been present every day?
- Has the child had measles within the last 3 months?

Look and feel:

- Look or feel for stiff neck.
- Look for runny nose.
- Look for any bacterial cause of fever**.
- Look for signs of MEASLES.
 - ◊ Generalized rash and
 - ◊ One of these: cough, runny nose, or red eyes.

Do a malaria test***: If NO severe classification

- In all fever cases if High malaria risk.
- In Low malaria risk if no obvious cause of fever present.

If the child has measles now or within the last 3 months:

- Look for mouth ulcers.
- Are they deep and extensive?
- Look for pus draining from the eye.
- Look for clouding of the cornea.


<p>Classify FEVER</p> <p>High or Low Malaria Risk</p> <p>No Malaria Risk and No Travel to Malaria Risk Area</p> <p>If MEASLES now or within last 3 months, Classify</p>	<ul style="list-style-type: none"> • Any general danger sign or • Stiff neck. 	<p>Pink: VERY SEVERE FEBRILE DISEASE</p>	<ul style="list-style-type: none"> ■ Give first dose of artesunate or quinine for severe malaria ■ Give first dose of an appropriate antibiotic ■ Treat the child to prevent low blood sugar ■ Give one dose of paracetamol in clinic for high fever (38.5°C or above) ■ Refer URGENTLY to hospital
	<ul style="list-style-type: none"> • Malaria test POSITIVE. 	<p>Yellow: MALARIA</p>	<ul style="list-style-type: none"> ■ Give recommended first line oral antimalarial ■ Give one dose of paracetamol in clinic for high fever (38.5°C or above) ■ Give appropriate antibiotic treatment for an identified bacterial cause of fever ■ Advise mother when to return immediately ■ Follow-up in 3 days if fever persists ■ If fever is present every day for more than 7 days, refer for assessment
	<ul style="list-style-type: none"> • Malaria test NEGATIVE • Other cause of fever PRESENT. 	<p>Green: FEVER: NO MALARIA</p>	<ul style="list-style-type: none"> ■ Give one dose of paracetamol in clinic for high fever (38.5°C or above) ■ Give appropriate antibiotic treatment for an identified bacterial cause of fever ■ Advise mother when to return immediately ■ Follow-up in 3 days if fever persists ■ If fever is present every day for more than 7 days, refer for assessment
	<ul style="list-style-type: none"> • Any general danger sign • Stiff neck. 	<p>Pink: VERY SEVERE FEBRILE DISEASE</p>	<ul style="list-style-type: none"> ■ Give first dose of an appropriate antibiotic. ■ Treat the child to prevent low blood sugar. ■ Give one dose of paracetamol in clinic for high fever (38.5°C or above). ■ Refer URGENTLY to hospital.
	<ul style="list-style-type: none"> • No general danger signs • No stiff neck. 	<p>Green: FEVER</p>	<ul style="list-style-type: none"> ■ Give one dose of paracetamol in clinic for high fever (38.5°C or above) ■ Give appropriate antibiotic treatment for any identified bacterial cause of fever ■ Advise mother when to return immediately ■ Follow-up in 2 days if fever persists ■ If fever is present every day for more than 7 days, refer for assessment
	<ul style="list-style-type: none"> • Any general danger sign or • Clouding of cornea or • Deep or extensive mouth ulcers. 	<p>Pink: SEVERE COMPLICATED MEASLES****</p>	<ul style="list-style-type: none"> ■ Give Vitamin A treatment ■ Give first dose of an appropriate antibiotic ■ If clouding of the cornea or pus draining from the eye, apply tetracycline eye ointment ■ Refer URGENTLY to hospital
<ul style="list-style-type: none"> • Pus draining from the eye or • Mouth ulcers. 	<p>Yellow: MEASLES WITH EYE OR MOUTH COMPLICATIONS****</p>	<ul style="list-style-type: none"> ■ Give Vitamin A treatment ■ If pus draining from the eye, treat eye infection with tetracycline eye ointment ■ If mouth ulcers, treat with gentian violet ■ Follow-up in 3 days 	
<ul style="list-style-type: none"> • Measles now or within the last 3 months. 	<p>Green: MEASLES</p>	<ul style="list-style-type: none"> ■ Give Vitamin A treatment 	

PLAN FOR AND SYSTEMATIZE CARE

- Planning for transfer of care to hospital, inpatient or intensive care unit, or to higher level care (with specific surgical intervention) if available is always a consideration.
- Begin transport planning as soon as you realize need.
- Basic Emergency Course has resources for patient transfer with SBAR

Use this tool to help facilitate efficient and safe communications about patients, including facility transfers and handover of care between providers.



S Situation	Identify yourself & location <input type="checkbox"/> Identify patient (name, age, sex) <input type="checkbox"/> State diagnosis (suspected or definitive) <input type="checkbox"/> State reason for transfer or handover (e.g. unavailable diagnostics or therapeutics) <input type="checkbox"/>
B Background	Admission date <input type="checkbox"/> Relevant past medical & surgical history <input type="checkbox"/> Recent changes in status (ABCDE findings/interventions) <input type="checkbox"/> Relevant labs & imaging <input type="checkbox"/> Recent vital signs <input type="checkbox"/> Management or interventions provided (e.g. O2, infusions, antibiotics, procedures) <input type="checkbox"/> Relevant psychosocial factors <input type="checkbox"/>
A Assessment	State the diagnoses or conditions (if diagnostic uncertainty) <input type="checkbox"/> State severity of illness (stable or critical) <input type="checkbox"/> State patient trajectory (worsening or improving) <input type="checkbox"/> Report response to interventions provided <input type="checkbox"/>
R Recommendation	State your recommendations & concerns (e.g. transfer for specialist consult or frequent monitoring) <input type="checkbox"/> State timeline for recommendations (e.g. transfer or intervention needed in next 1 hour) <input type="checkbox"/> State contingency plans (e.g. If patient transfer is delayed, then I will...) <input type="checkbox"/>
Confirmation: Ask receiver to repeat back key information and clarify any questions 	

PLAN FOR AND SYSTEMATIZE CARE

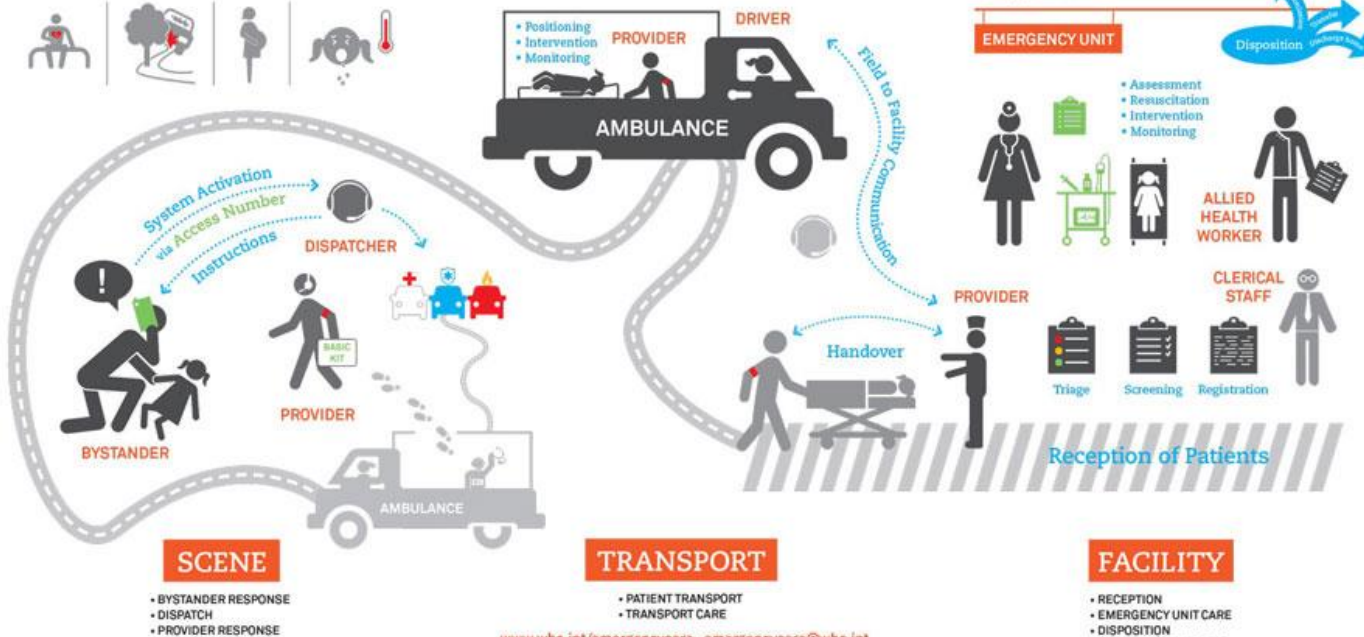


EMERGENCY CARE SYSTEM FRAMEWORK

All around the world, acutely ill and injured people seek care every day. Frontline providers manage children and adults with injuries and infections, heart attacks and strokes, asthma and acute complications of pregnancy. An integrated approach to early recognition and management saves lives. This visual summary illustrates the essential functions of a responsive emergency care system, and the key human resources, equipment, and information technologies needed to execute them.



■ HUMAN RESOURCES
 ■ FUNCTIONS
 ■ EQUIPMENT, SUPPLIES, INFORMATION TECHNOLOGIES



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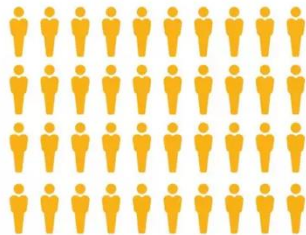
- Recurring Emergency Care training and updates help to keep skills fresh and healthcare workers familiar with care processes, equipment, and resources.
- Assess the current health system to identify available assets and resources and explore how collaboration can improve emergency care for all patients.
- Resources and training for health care workers (such as the Basic Emergency Care course) can increase the number of workers prepared to care in emergencies and make a life-saving difference.



The impact of Global Emergency Care



Each Emergency Care Practitioner (ECP) trained will care for over 40,000 patients over their career.



The cost to train an ECP over 2 years is \$7,000 - just \$0.18 per patient treated over his/her lifetime

WHY WE NEED YOUR HELP

Sub-Saharan Africa has an estimated shortage of 420,000 physicians*

Less than 20% of the hospitals in Sub-Saharan Africa have the ability to deliver emergency care.



GEC ECPs are currently treating more than 4,000 children and 20,000 total patients each year for acute illness or injury

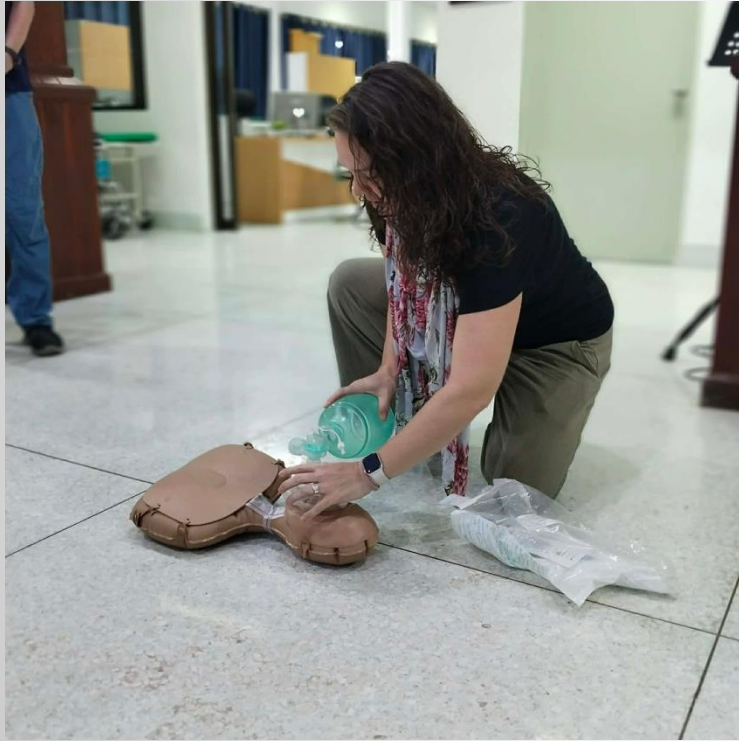


We project emergency care saves 1 additional life among every 20 children sick enough to be admitted to the hospital, based on pilot site data.

Life Saving Medical Care for all

*Based on WHO recommendation for physician to population ratio (2015)

ALL EFFORTS CAN SAVE LIVES



THANK YOU

