Neonatal Resuscitation

January 2022 LCEMS

Shawn Wittkop NRP

Not Neonatal Resuscitation

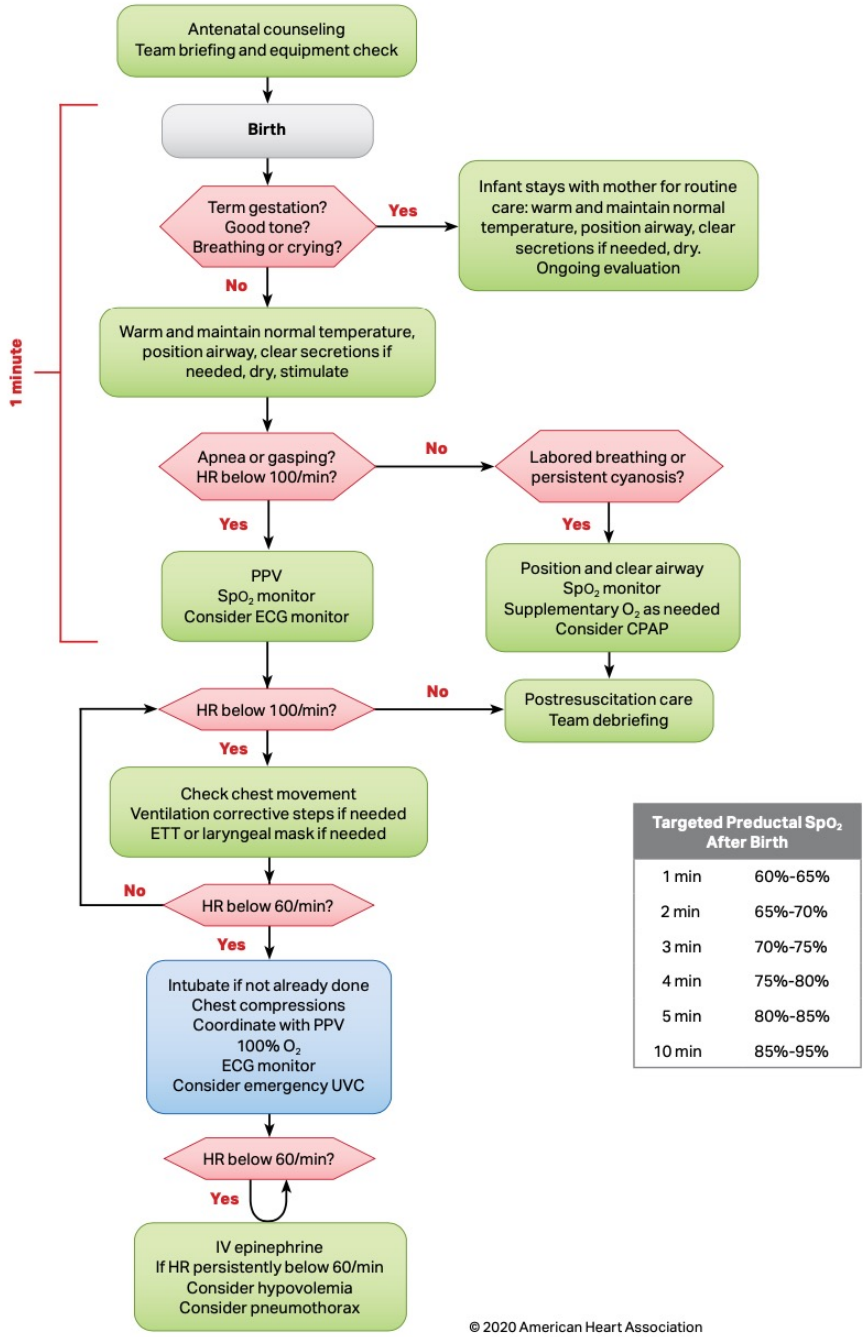
Now that you have your breath back…

What is NRP???

History of Neonatal Resuscitation

- Fetal anoxia
  - Very common conditions affecting newborns
    - Intensive study for the past 40 years has further supported this concept
- 18th Century BO Blundell
  - First to use mechanical device for ventilation and intubation in a living newborn
- 1920 Joseph B DeLee
  - Utilized a rubber catheter and a glass trap to clear upper airways and stomach and was a proponent of warmers
- 1953 Virginia Apgar
  - Helped create the APGAR scoring tool and was one of the first for umbilical artery cannulation
- 1966 – The National Guidelines for resuscitation for Adults was recommended
- 1987 – American Academy of Pediatrics launched the Neonatal Resuscitation Program (NRP) program. After the first training session, National Faculty courses were held around the country throughout 1988.
- Today NRP is utilized in over 130 countries

Neonatal Resuscitation Algorithm



Targeted Preductal SpO_2 After Birth	
1 min	60%-65%
2 min	65%-70%
3 min	70%-75%
4 min	75%-80%
5 min	80%-85%
10 min	85%-95%

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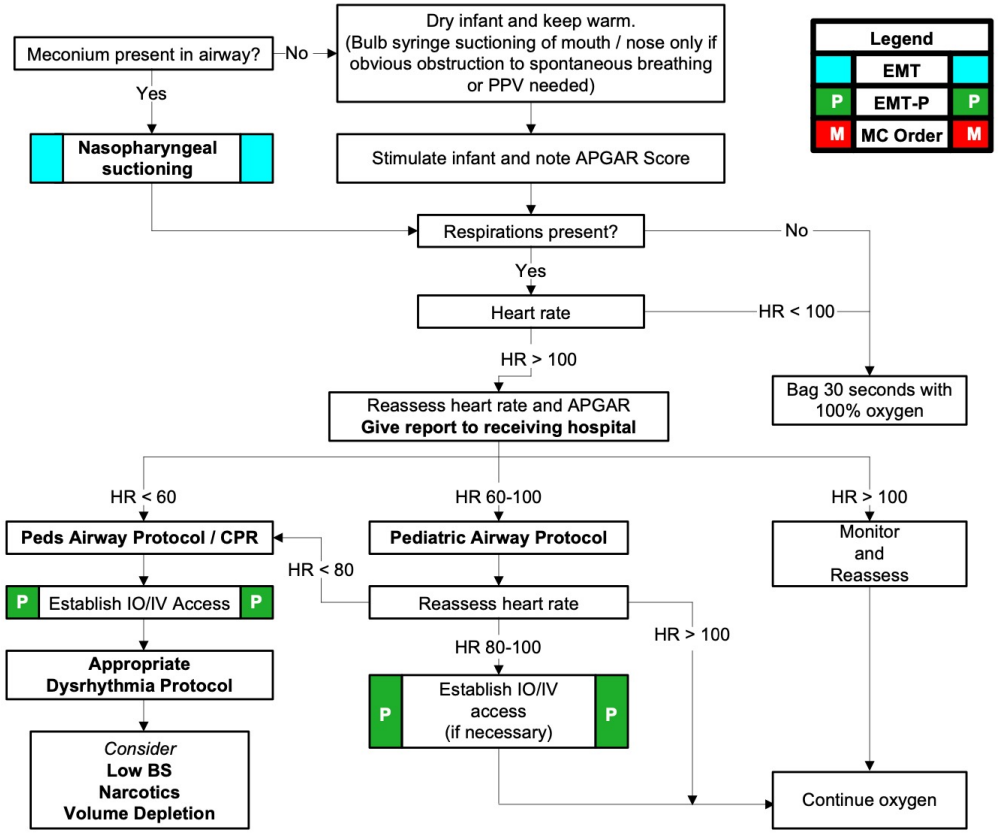
History:	Signs / Symptoms:	Differential:
• Due date and gestational age • Multiple gestation • Meconium • Delivery difficulties • Congenital disease • Medications (maternal) • Maternal risk factors	• Respiratory distress • Peripheral cyanosis or mottling (normal) • Central cyanosis (abnormal) • Altered level of response • Bradycardia	• Airway failure • Infection • Maternal medication effect • Hypovolemia • Hypoglycemia • Congenital heart disease • Hypothermia



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Special Considerations:

1. Neonatal resuscitation priorities:
   a. Airway
   b. Breathing
   c. Circulation
   d. Temperature

2. Suctioning immediately following birth (including suctioning with a bulb syringe) should be reserved for babies who have obvious obstruction to spontaneous breathing or who require positive-pressure ventilation. Avoid stimulation of the back of the pharynx during suctioning. This may cause bradycardia in the newborn.

3. Light meconium staining, if present, may only need standard oral/nasal suctioning maneuvers with a neonate that presents vigorous (strong respiratory efforts, good muscle tone, heart rate > 100) upon assessment. If thick meconium is present, or an open adequate airway cannot be obtained, use laryngoscope and suction to clear the airway under direct visualization to avoid contamination of the lungs with meconium. Hypoxia and vagal stimulation can result if prolonged suctioning occurs. Do not stimulate the neonate to cry until the airway is cleared.

4. Supplementary oxygen is recommended whenever positive-pressure ventilation is indicated for resuscitation; free-flow oxygen should be administered to neonates who are breathing but have central cyanosis.

5. Neonates who remain apneic, gasping, HR < 100, or continued central cyanosis after administering initial steps, despite supplementary oxygen, should have positive-pressure ventilation initiated. Effective ventilation can be achieved with the appropriate sized bag-valve device and mask.

6. Endotracheal intubation may be indicated if bag-mask ventilation is ineffective. The timing of endotracheal intubation (field vs. ED) may also depend on the skill and experience of the available providers.

7. Establish intravascular access as necessary for volume and/or medication administration. **In a severely depressed neonate consider IO first for vascular access.**

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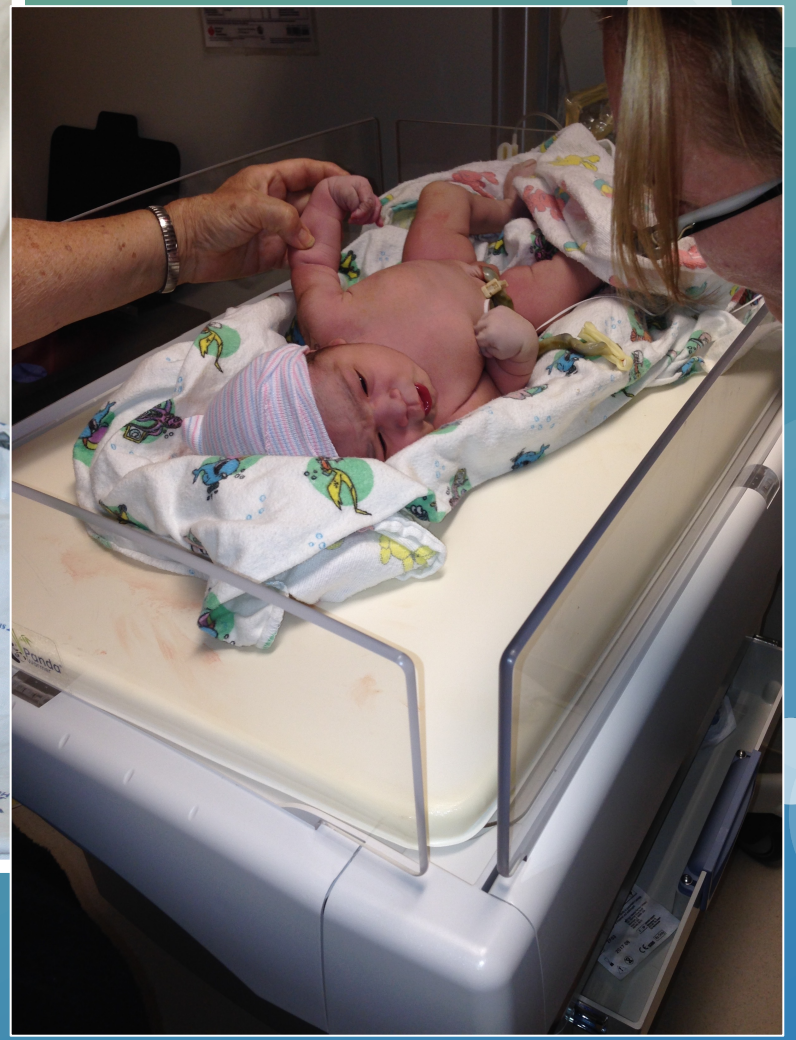
Special Considerations (cont.),

APGAR Scoring Table

Score	0	1	2
Appearance	Blue centrally	Blue extremities	Pink
Pulse	0	< 100	> 100
Grimace	None	Grimace	Pulls Away
Activity	Absent	Arm / Leg Flexed	Active Movement
Respirations	Absent	Slow	Crying, Good

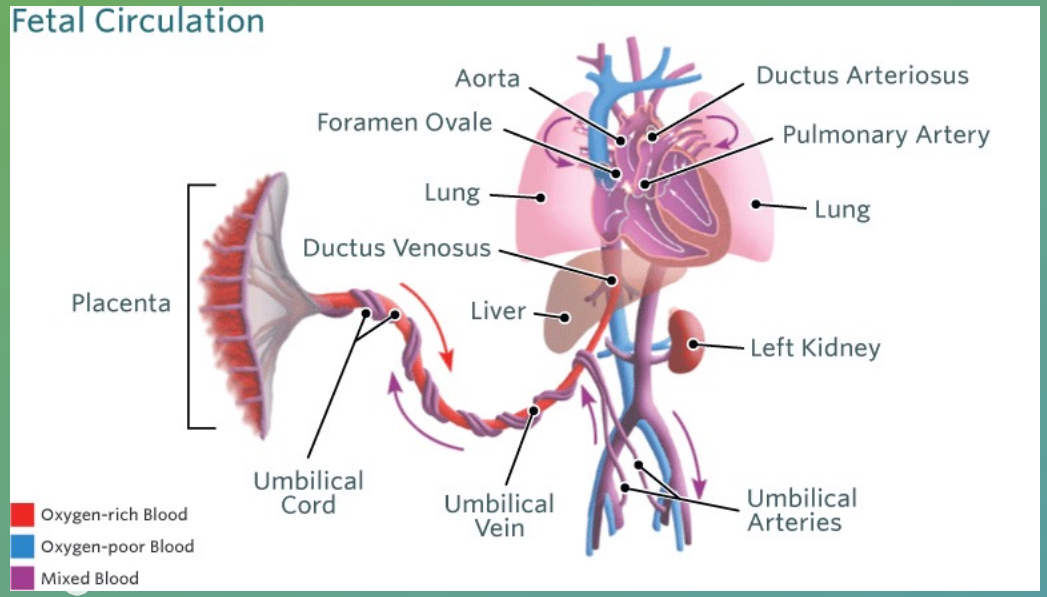
Transition



Transition

- If normal transition does not occur, the baby's organs will not receive enough oxygen
  - Acids accumulate in the tissue
  - Blood vessels in the baby's intestines, kidneys, muscles and skin may constrict
- A temporary measure to maintain blood flow to the heart and brain
  - If inadequate gas exchange continues, the heart will begin to fail and blood flow to all organs decrease
- Ventilation and oxygenation become more critical than ever
- Clinical findings of abnormal transition include
  - Irregular breathing
  - Slow heart rate (usually later)
  - Tachycardia (usually first)
  - Decreased muscle tone
  - Pale to blue skin
  - Persistent low oxygen saturation
  - Low blood pressure

What is happening?



Neonatal Resuscitation Pyramid

- Rapid evaluation
  - Can the newborn remain with mom or does it need to be warmed and stimulated in an location we can see the baby?
- If that doesn't work, we progress to resuscitation
  - Opposite of Adults CAB / Neonates ABC
- Airway
  - Can we simply open the and support spontaneous breathing?
- Breathing
  - PPV is designed for newborns with apnea or bradycardia. (CPAP) is done in hospital and we utilize supplemental oxygen
    - Utilized when labored breathing or low SPO2
- Circulation
  - If severe bradycardia persists despite assisted ventilation, CPR with PPV
- Drugs
  - EPI with CPR and PPV

Equipment

OB Kit
Clean Blankets
SPO2 / EKG
ID Tags

Team Approach to a Neonatal Resuscitation

Coordination – Similar to ACLS/PALS

Closed Loop Communication

- Do they know the expected gestational age or due date?
- Multiple Gestations
- Meconium – Clear or thick
- Any known congenital disease
- Maternal Medications and history

History & Assessment

	0	1	2
Appearance	pale/blue all over	acrocyanosis	pink all over
Pulse	absent	<100 bpm	>100 bpm
Grimace	No response to stimulation	grimace (no cry) to stimulation	cry & active movement to stimulation
Activity	none, flaccid	Some flexion of arms & legs	arms & leg flexed
Respiratory	absent	weak, irreg. cry	Strong, vigorous cry

Birth Defects Affecting Hypoxia

- **7 – Critical Congenital Heart Defects most likely to be noted on an SPO2 screening**
  - **D-transposition of the Great Arteries**
  - **Tetralogy of Fallot**
  - **Total anomalous pulmonary venous return (TAPVC)**
  - **Truncus Arteriosus**
  - **Hypoplastic Left Heart Syndrome (HLHS)**
  - **Pulmonary Atresia**
  - **Tricuspid Atresia**

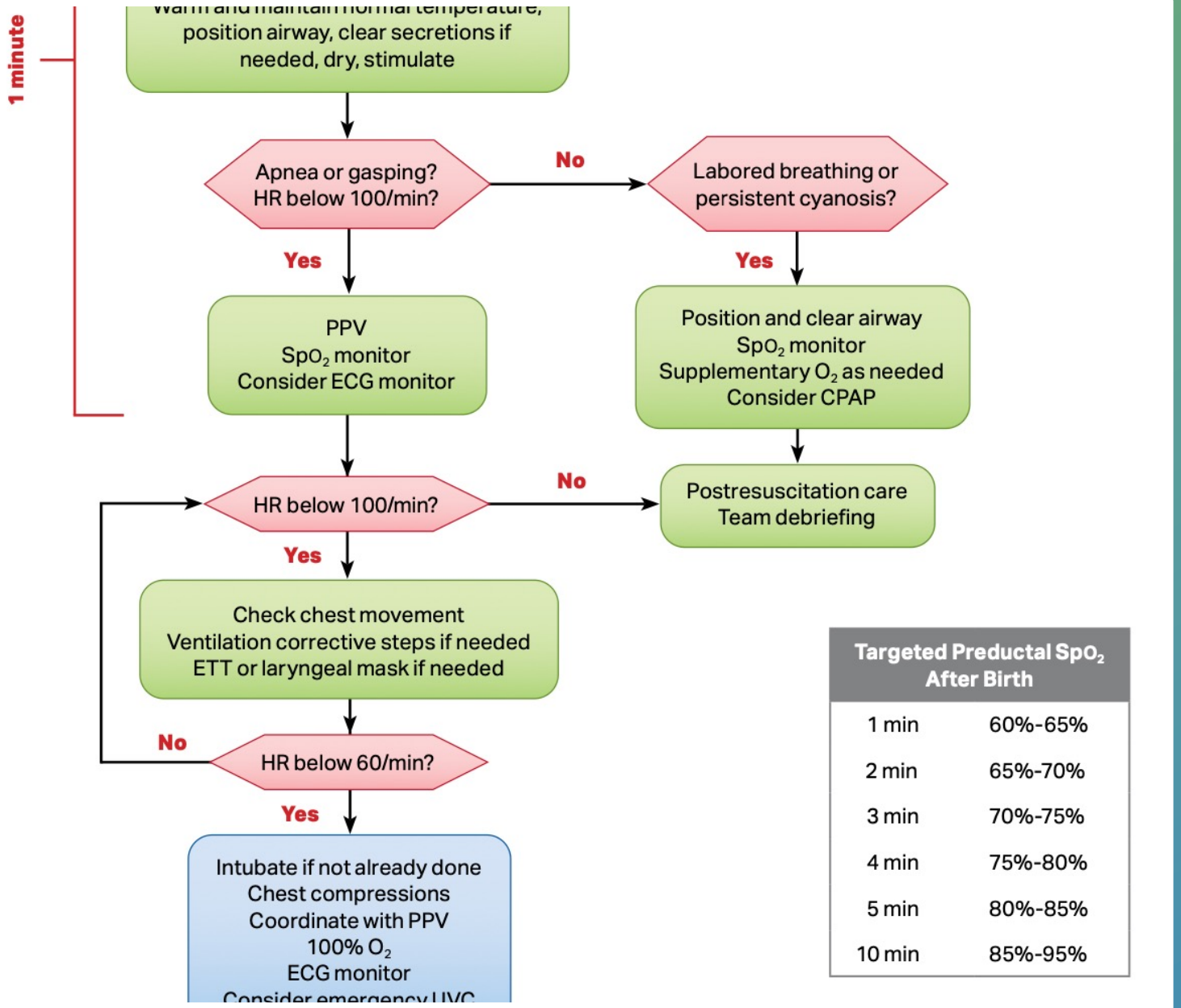
- Defects less likely to be detected on an SPO2 screening. These can cause a delayed APGAR improvement score
  - Coarctation of the Aorta
  - Ebstein Anomaly
  - Double-Outlet Right Ventricle
  - Interrupted Aortic Arch
  - Single Ventricle

Arrival!

- Rapid evaluation
  - Crying
  - Muscle tone
- If no to one or all, begin resuscitation
- Term or Preterm
- Ask about a Cord Management Plan and Placenta Plan

Fundamental Basics are Keys for Success

Breathing Response is Abnormal



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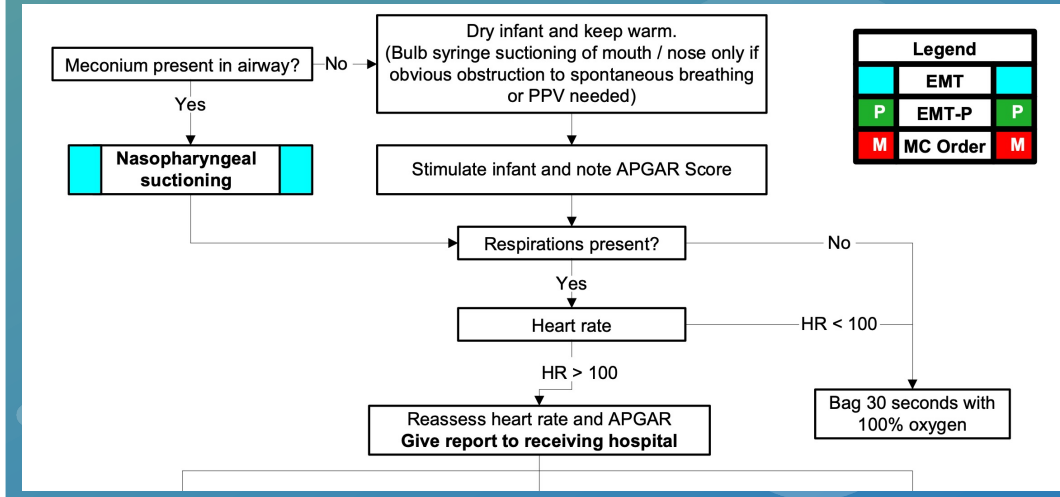
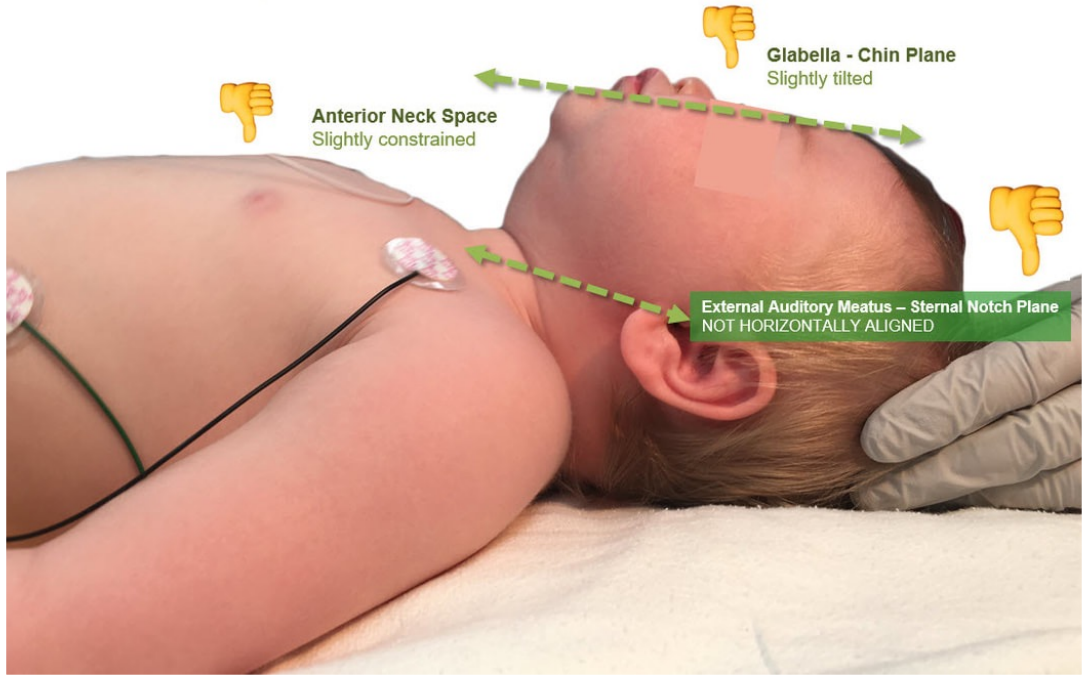


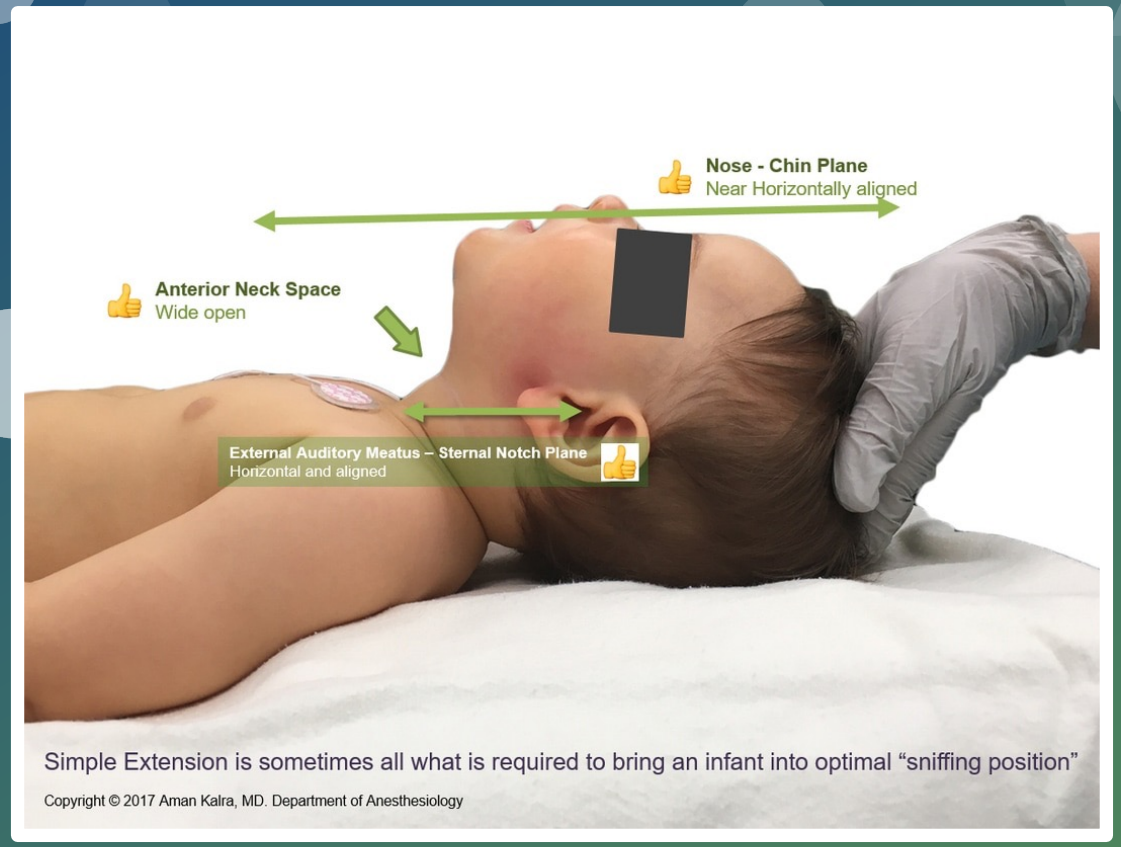
Step 1: Simple Head Extension (no shoulder roll or headrest)

Check if secondary markers meet criteria



Step 1: Simple Head Extension

(no shoulder roll or headrest)


Nose - Chin Plane
Near Horizontally aligned
Anterior Neck Space
Wide open
External Auditory Meatus – Sternal Notch Plane
Horizontal and aligned
Simple Extension is sometimes all what is required to bring an infant into optimal “sniffing position”
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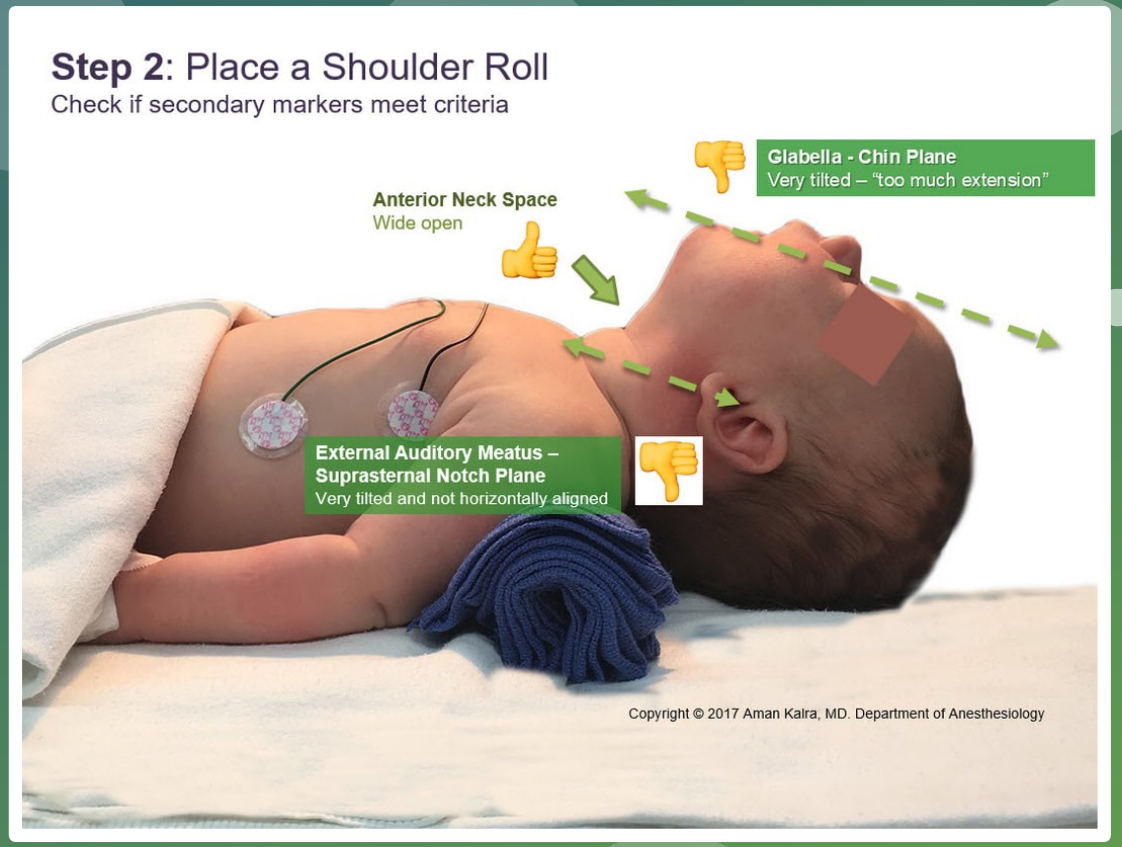
Step 2: Place a Shoulder Roll
Check if secondary markers meet criteria
Glabella - Chin Plane
Very tilted – “too much extension”
Anterior Neck Space
Wide open
External Auditory Meatus – Suprasternal Notch Plane
Very tilted and not horizontally aligned
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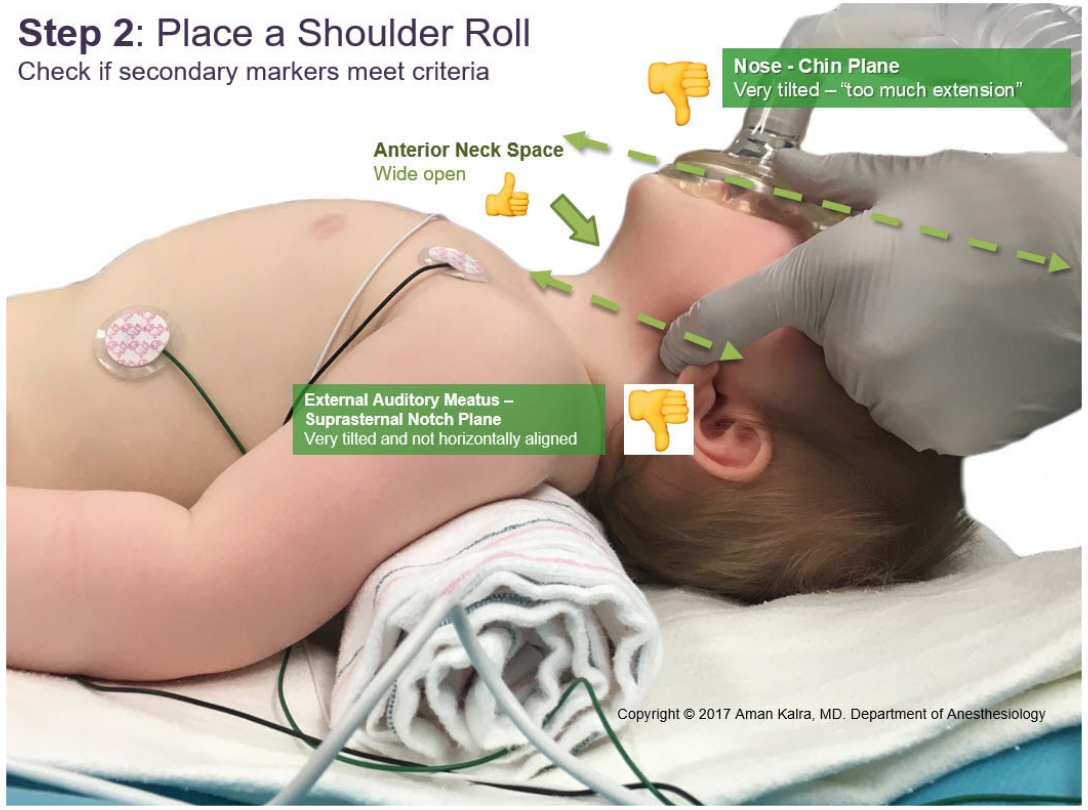
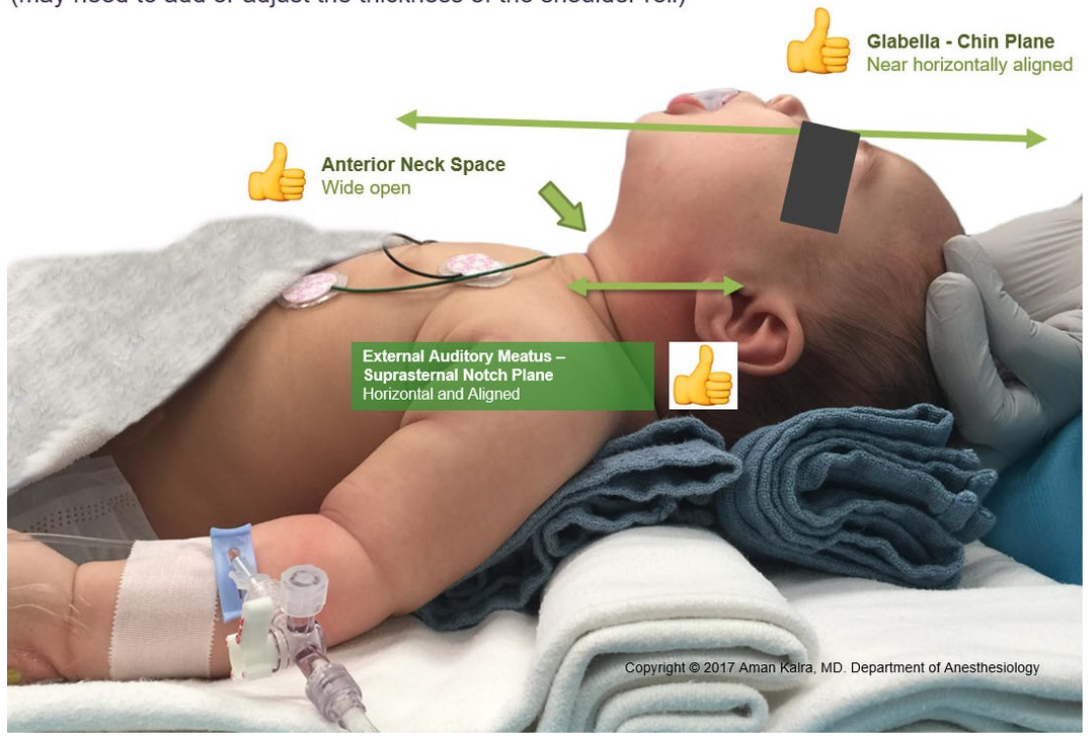
Step 2: Place a Shoulder Roll

Check if secondary markers meet criteria

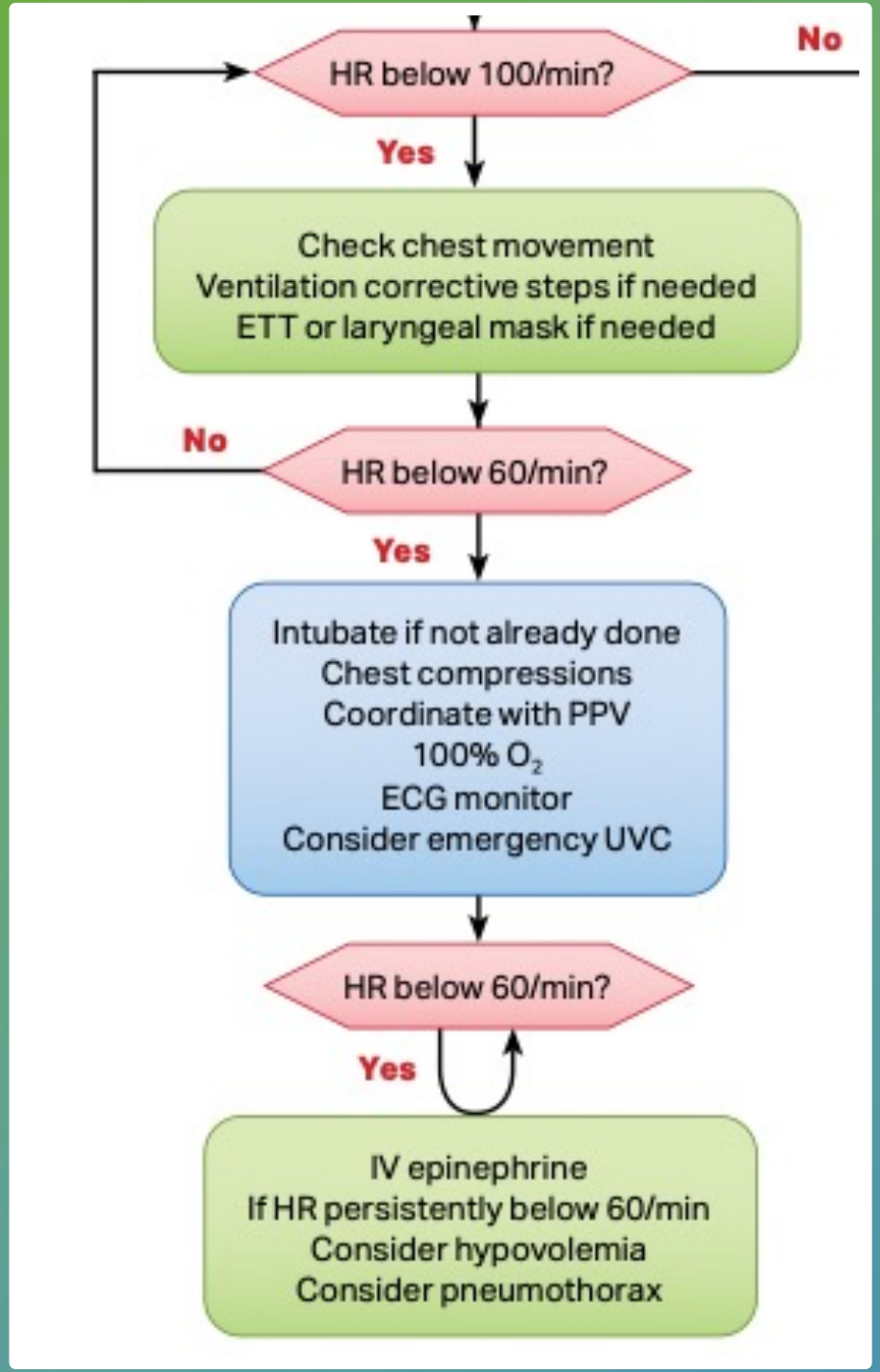


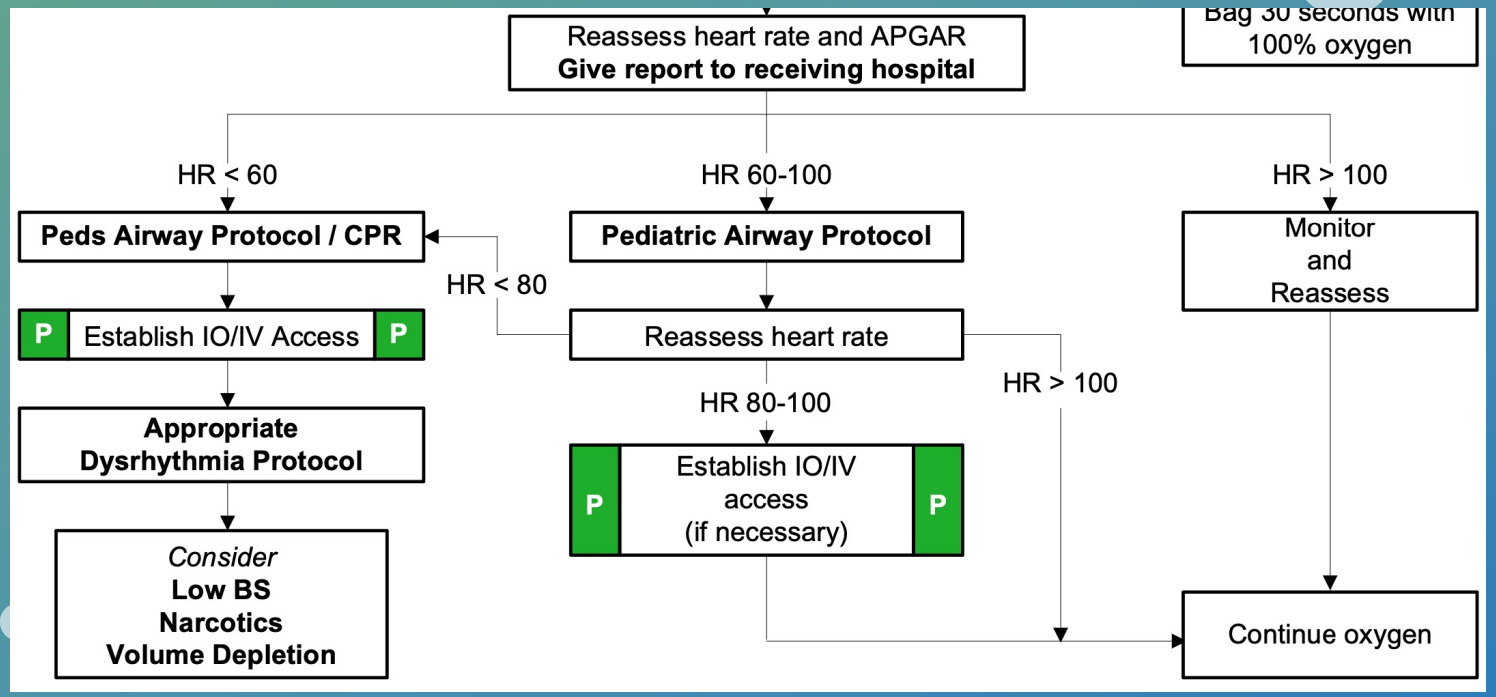
Step 3: Add a Headrest until all criteria are met

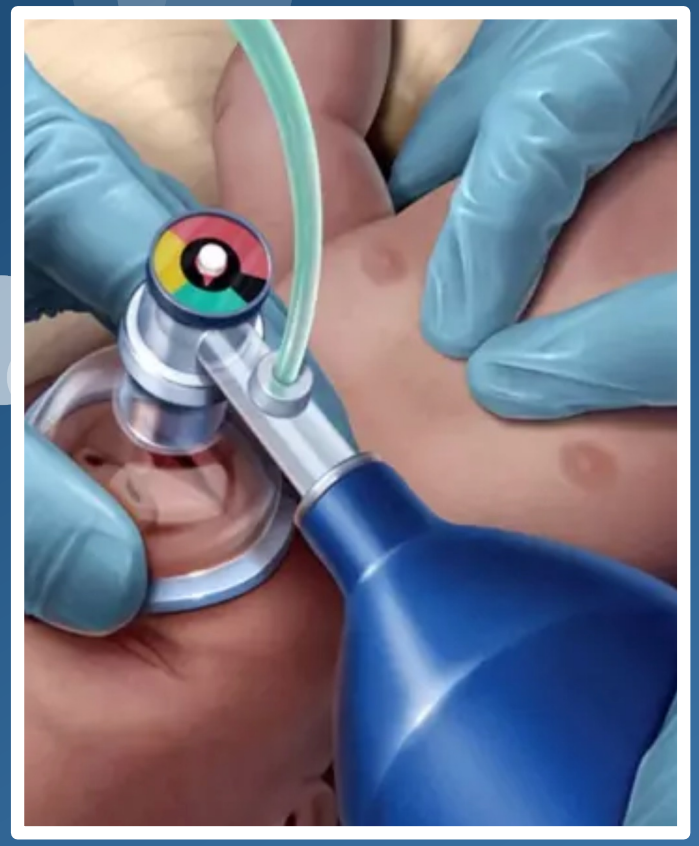
(may need to add or adjust the thickness of the shoulder roll)

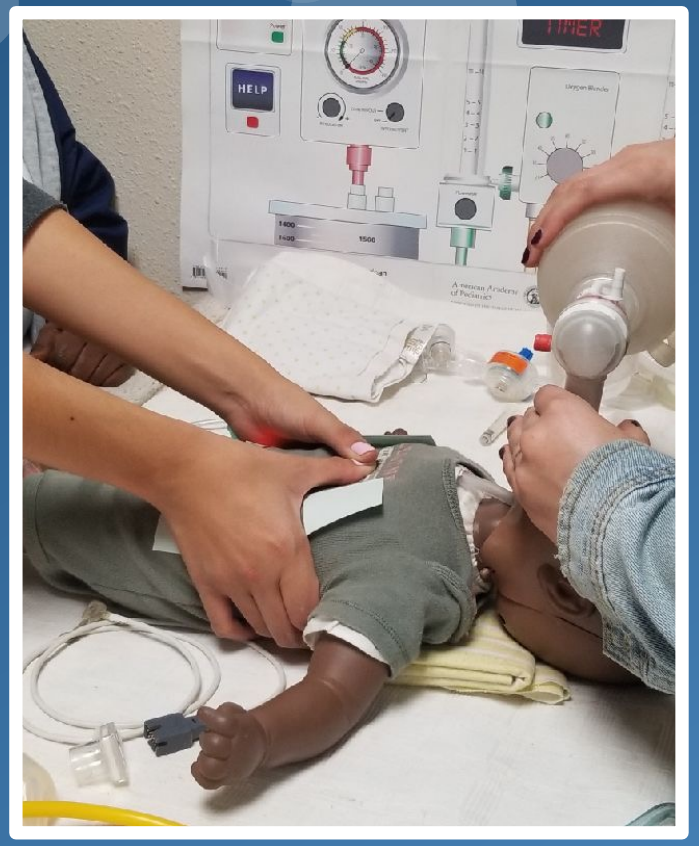


Heart Rate Persistently Low









PPV with CPR

If not effective consider using the CARDIO Mnemonic

Option 1 -USE ACTUAL AGE (IF STANDARD SIZED CHILD)
Option 2 -ESTIMATE AGE SING HANDTEVY LENGTH BASED TAPE (HEAD TO HEEL)

Newborn

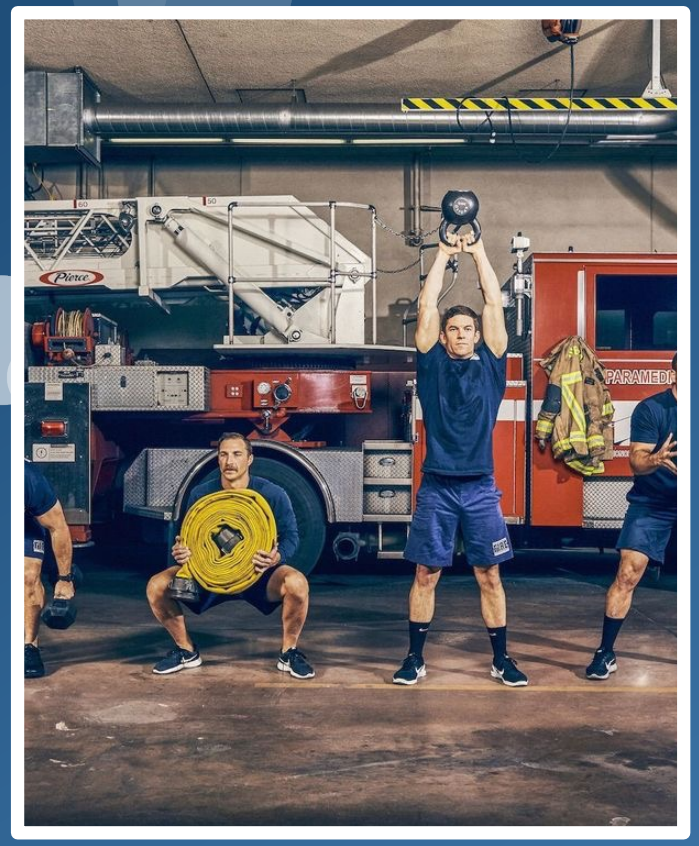
Lucas County EMS				4 KG IDEAL WEIGHT	
DRUG	CONCENTRATION	VOL	RT	DOSE/KG	AMOUNT
Adenosine (1st Dose)	6 mg/2 mL	0.13 mL	IV/IO	0.1 mg/Kg	0.4 mg
Adenosine (2nd Dose)	6 mg/2 mL	0.27 mL	IV/IO	0.2 mg/Kg	0.8 mg
Albuterol	2.5 mg/3 mL	1.5 mL	NEB	Dose =	1.25 mg
Amiodarone	150 mg/3 mL	0.4 mL	IV/IO	5 mg/Kg	20 mg
Atropine	1 mg/10 mL	1 mL	IV/IO	Dose =	0.1 mg
Benadryl	50 mg/mL	0.08 mL	IV/IO/IM	1 mg/Kg	4 mg
Bicarb 8.4%	50 mEq/50 mL	4 mL	IV/IO	1 mEq/Kg	4 mEq
Calcium Chloride 10%	1 g/10 mL	0.8 mL	IV/IO	20 mg/Kg	80 mg
D10W	(D50 – 40 mL) + 40 mL NS	8 mL	IV/IO	0.2 g/Kg	0.8 g
Dopamine Drip	1600 mcg/mL	1 gtt/min	IV	Titrate to BP: Max 4 gtt/min	
Epi 1:1,000 ET	1 mg/mL	0.4 mL	ET	0.1 mg/Kg	0.4 mg
Epi 1:1,000 IM	1 mg/mL	0.04 mL	IM	0.01 mg/Kg	0.04 mg
Epi 1:1,000 NEB	1 mg/mL	3 mL	NEB	1 mg in 2 mL NS	1 mg
Epi 1:10,000 IV/IO	1 mg/10 mL	0.4 mL	IV/IO	0.01 mg/Kg	0.04 mg
Fentanyl	100 mcg/2 mL	0.08 mL	IV/IO/IN	1 mcg/Kg	4 mcg
Glucagon	1 mg/mL	0.4 mL	IM/IN	0.1 mg/Kg	0.4 mg
Glucose (oral)	15 g/tube	N/A	PO	Not Indicated	
Morphine	10 mg/mL	0.04 mL	IV/IO/IM	0.1 mg/Kg	0.4 mg
Narcan	2 mg/2 mL	0.4 mL	IV/IM/IN	0.1 mg/Kg	0.4 mg
Normal Saline Bolus	0.9%	40 mL	IV/IO	10 mL/Kg	40 mL
Solu Medrol	125 mg/2 mL	0.06 mL	IV/IO	1 mg/Kg	4 mg
Versed IM/IN	1 mg/mL	0.8 mL	IM/IN	0.2 mg/Kg	0.8 mg
Versed IV/IO	1 mg/mL	0.4 mL	IV/IO	0.1 mg/Kg	0.4 mg

Lucas County EMS

IV / IO access

EPI
Dextrose – D10%
Narcan
Fluid Bolus
(more discussion in the skill station)

Newborn Death



Take Care of Yourself and Each Other

Thank you

Questions?

Quick Review

- Reproductive years are cyclical
- Each month an ovum is released during ovulation
- Without fertilization, endometrium lining is shed monthly
- With fertilization, implantation of ovum takes place, endometrium lining is not shed.
- Normal Pregnancy: fetus within uterus, floating within a sac of amniotic fluid, connected to placenta via umbilical cord.
- Menopause occurs approximately between 45-55 years

Physiologic Changes During Pregnancy

System	Response
CV	Increased circulating volume Increased HR 10-15bpm Increased C. O.
Respiratory	Increased T.V. and Resp. Rate (early) Increased Minute Volume (early) Decreased Functional Capacity (late) Decreased T.V. (late)
Hematology	Increased Blood Volume > Increased RBC Volume Physiologic Anemia Hypercoaguable state Increased WBC
Musculoskeletal	Increased in Ligament Laxity
GI	Decreased Esophageal Sphincter tone Decreased motility
GU	Increased kidney size Increased ureter diameter Increased urinary frequency Decreased bladder volume

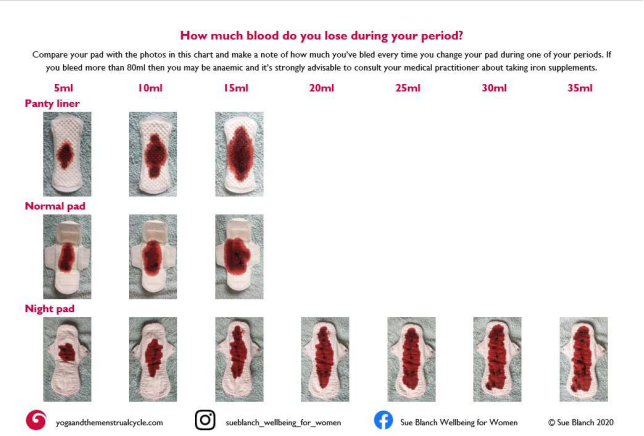
OB/Gyn Assessment Pearls

- Teenage patients may not want to answer questions in front of parents or caregivers.
- Patient may want to be evaluated by a female paramedic.
- Patient may not want their significant other to hear the sensitive answers to the history questions.
- SAMPLE and OPQRST may not be sufficient interview questions for the gynecological patient
- Do not use slang terminology
- Palpation of the abdomen should be completed
- Do not omit the rest of the exam just because the patient has a gynecological complaint

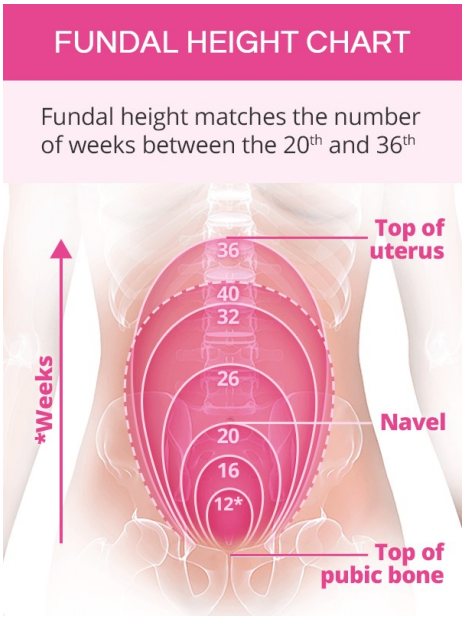
OB/Gyn Assessment Pearls

- Additional questions to consider adding to your patient interview:
  - LMP
  - Are your periods normally regular?
  - Was your last period typical for you?
  - Have you had any pain with menstruation?
  - Any possibility of pregnancy?
  - Do you have unprotected intercourse?
  - What form of birth control do you use?
  - Any exposures to STD's?
  - Any vaginal discharge or abnormal bleeding?
  - Prenatal Care
  - Multiple gestations

Determining blood loss...



Where is the fundus?



OB/Gyn Documentation Review

- Documentation shorthand: GPAL
  - Gravidity = Number of pregnancies
  - Parity = Number of births
  - Abotions = Number of spontaneous or elective abortions
  - Living = Number of live children the mother has born
- G2 P2 A0 L2
- G2 P3 A0 L3

LCEMS Medications Considered Safe During Pregnancy

Medication	Risk
Acetaminophen	Safe
Albuterol	Safe
D50	Safe
Diphenhydramine	
Epinephrine	Weigh out why you are giving it
Cyanokit	Weigh out why you are giving it
Glucose	Safe
MgSO4	Safe
Narcan	Safety not established
Oxygen	Safe
Thiamine	Safe
Zofran	Safe

Case #1

- You are called by a husband for a 25 yo female, known to be 11 weeks pregnant and lethargic. The patient has been noted to have had persistent episodes of nausea and vomiting. Patient will open eyes to both verbal and painful stimuli. Vital signs are as follows: BP 92/44, HR 130 regular, Resp 16, Pulse Ox 99% RA
- What is most likely going on?
- What is your management plan?

Hyperemesis Gravidarum

- Severe morning sickness with excessive nausea and/or vomiting
- Inadequate intake of food and fluids
- Onset is usually 6 weeks
- S/S: intractable n/v, weight loss, no abdominal tenderness
- Tx: Glucose?, Orthostatic V/S, Assess for dehydration, ECG, IV NS fluid bolus. Consider Zofran 4 mg IVP
  - May repeat Zofran in 5-10 min, 4mg IVP.

Case 2

- A 33 yo female calls with abdominal pain. Denies n/v/d. States the pain is localized to the lower abdomen.
- VS: 90/60, HR 130 bpm, RR 18
- On interview the patient tells you her LMP was 8 weeks ago

- What do you want to keep in your differentials or working diagnoses?

Ectopic Pregnancy

- A pregnancy that occurs outside of the uterus
- Most common location is a fallopian tube
- High risk population: Hx of PID, tubal ligation reversal, previous ectopic, or IUD.
- S/S: Unilateral lower abdominal pain, vaginal bleeding (possible but not necessary).
- Tx: ABC's secured, IV fluid (consider bolus), emotional support, shock management.
  - Per LCEMS protocol, if you think your patient would benefit from pain medication, YOU MUST contact On-Line Medical Control {Tab 900 A-2}

Ectopic Assessment

CULLEN SIGN

GREY TURNER SIGN

Case 3

- A 37 yo female, who is 36 weeks pregnant is c/o an intense H/A with dizziness. She states she is also having blurred vision from her right eye.
- VS: HR 110, BP: 158/92, RR: 18, SPO2: 97%
- What are you starting to put into your working diagnoses?

Preeclampsia

- New onset HTN with proteinuria and/or end-organ dysfunction after 20 weeks of gestation
- Hallmark presentation of Eclampsia is seizures
  - 1/3 of Eclampsia cases occur post delivery
- Risk Factors: Family hx, first pregnancy, advanced maternal age, diabetes, multiple gestations, obesity, chronic kidney disease, chronic HTN, African American race
- S/S: H/A with or without visual disturbances, peripheral edema – most often face, hands, and ankles, RUQ pain, N/V, HTN,

Treatment

- Assess/Support ABC's
- Establish IV
- Left Lateral Position
- Seizure
  - Blood glucose
  - Mag Sulfate 4Gm IV drip over 10-20min
  - Active seizure – Versed 2-4mg slow IVP

LCEMS Tab 900 N1

Case 4

- A 28 yo G2 P1 at 36 weeks calls for abdominal tenderness and vaginal bleeding for the last hour.
- VS: HR 102, BP 110/74, RR 18, SPO2 97% RA
- What do you not want to do????

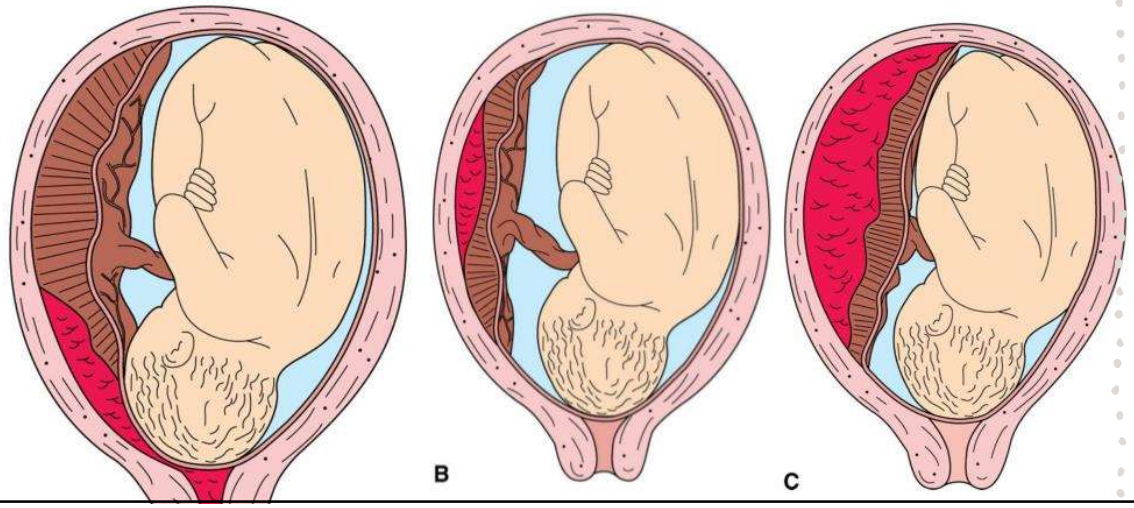
Vaginal Bleeding

- Any bleeding that is spontaneous, unrelated to the menstrual cycle, or does not stop is always an abnormal finding.
- Known pregnancy?
  - <20wks – ominous
  - >20wks – a variety of causes possible
- HPI Questions:
  - Any internal or external trauma?
  - Ask if she is pregnant
  - LMP
  - How many pads in the last hour? 24 hours?

Abruptio Placenta

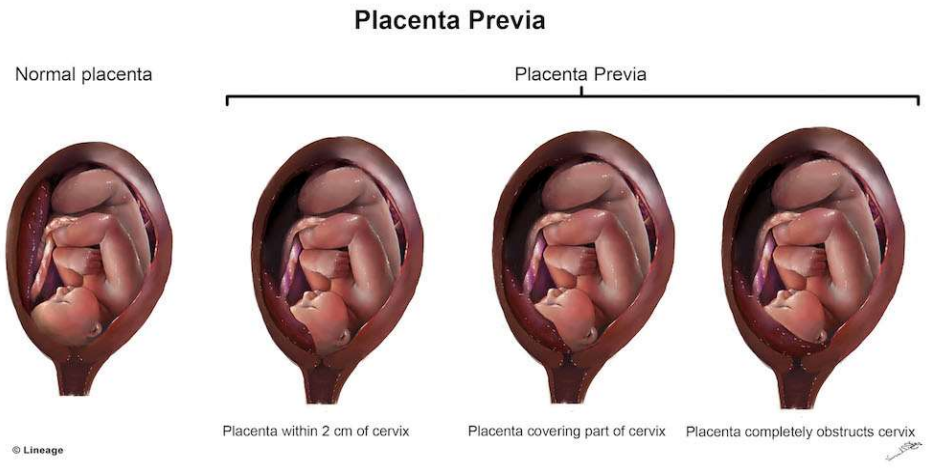
- Placenta detaches from uterine wall
- Can result in significant blood loss
- Risk factors: Previous abruption, abdominal trauma, cocaine, cigarettes, HTN, polyhydraminos, advanced maternal age, fetal distress
- Symptoms: Vaginal bleeding, abdominal/back pain, uterine tenderness, fetal distress
- Tx: Support ABC's, supplemental O2, consider IV NS fluid bolus. Transport to the most appropriate facility.

Abruptio placentae. *A*, Marginal abruption with external hemorrhage. *B*, Central abruption with concealed hemorrhage. *C*, Complete separation



Placenta Previa

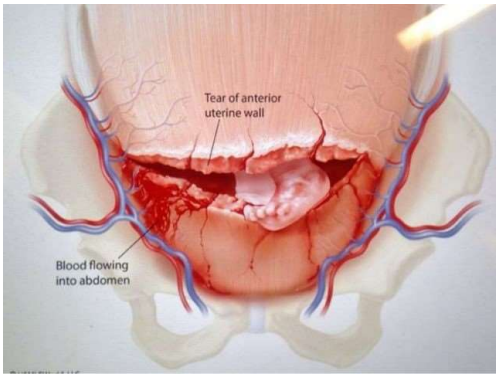
- Placenta implantation occurs low in the uterus, over the cervical os
- As the cervix dilates, vaginal bleeding will begin
- Risk factors: Previous previa, any pathology that changes the inner surface of the uterus
- S/S: Painless, bright red blood; soft non-tender abdomen
- Tx: Support ABC's, high flow O2, IV NS fluid bolus

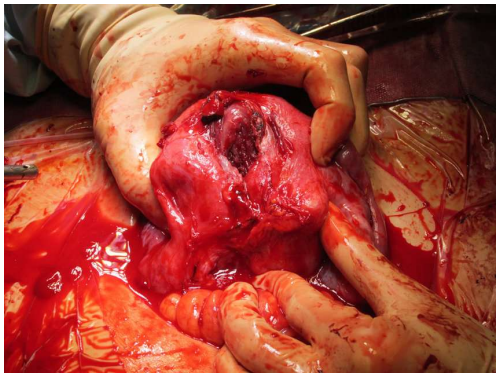


Uterine Rupture

- Rupture of the uterine wall during labor
- Lethal to mom and infant
- HPI: previous c-section
- S/S: Increased abdominal pain, Fetal distress, Decreased contractions, Loss of uterine tone, Shock presentation
- Tx: Support ABC's, high flow O2, IV NS fluid bolus, rapid transport to the most appropriate facility
  - UTMC and MSAH are not appropriate for these patients
  - LCEMS Protocol: Appropriate Facility B-100
- Definitive care is an emergent C-section

Uterine Rupture





Postpartum Hemorrhage

- 25% of obstetric deaths
- Definition: any bleeding in > 500mL (vaginal delivery) or >1,000 mL (c-section)
- Divided into Early and Late PPH
  - Early: In the first 24 hours after delivery
  - Late: Between the first 24 hours – first 6 weeks after delivery
- Causes:
  - Early: ***Uterine atony (most common)***, Retained placenta, Lacerations, Placenta accreta, Uterine inversion, Coagulopathy
  - Late: ***Retained placenta (most common)***, Infection, Uterine inversion, Coagulopathy

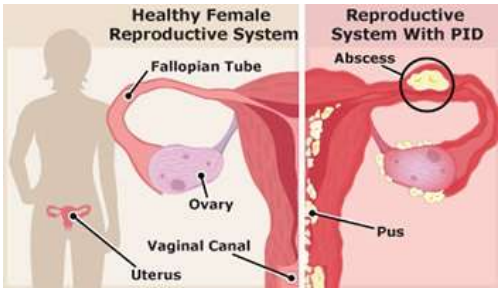
Postpartum Hemorrhage

- S/S: Vaginal bleeding, Enlarged, "boggy" uterus noted with uterine atony, Uterine mass present with uterine inversion, vaginal bleeding with "good tone" in the presence of retained products
- Tx: Support ABC's, High flow O2, 2 large bore IV's NS fluid bolus, Fundal massage, breastfeed
- DO NOT PACK, DO NOT INTERNALLY EXAMINE, DO NOT INSERT ANYTHING INTO THE VAGINA!

Pelvic Inflammatory Disease

- Infection of the reproductive organs
- Resulting from STI
- Infects the lining of the organs
- HPI: Multiple sexual partners, STD's, young age, non-barrier contraception, and IUD are high risk patients
- S/S: Diffuse lower abdominal pain, "achy" sensation, Increased pain with ambulation and intercourse, vaginal discharge, vaginal bleeding, post coital bleeding, fever, chills, dysuria, rebound tenderness.
- Tx: ABC's, Consider pain management is appropriate, monitor for shock

Pelvic Inflammatory Disease



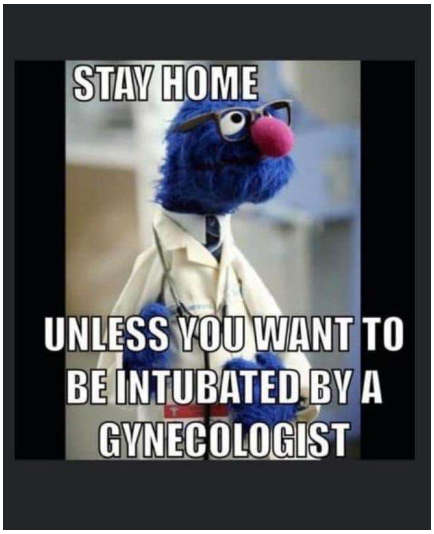
Sepsis/SIRS

- Criteria:
  - Temperature >38°C or < 36°C
  - Resp >20 breaths/min
  - HR >90bpm
  - EtCO2 <26mmHg or Lactate >4mMol
- Early recognition is key!
- Declare Sepsis Alert
- Tx: Support ABC's, Aggressive IV fluid therapy 20mL/kg (max 2L), transport to a facility with onsite ICU care

LCEMS Tab 900 Septic Shock

CC-1

The End



Pediatric Arrest

Aiden Yoon NRP
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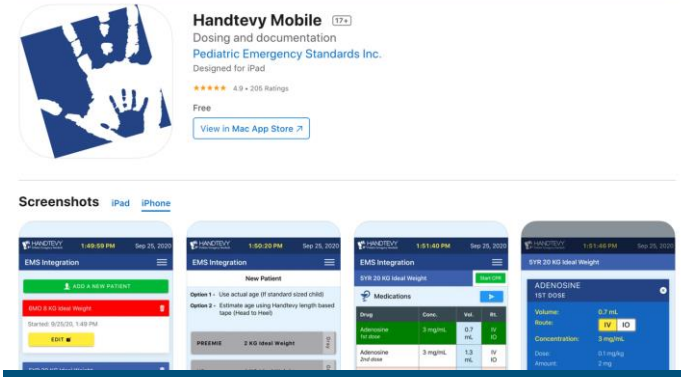
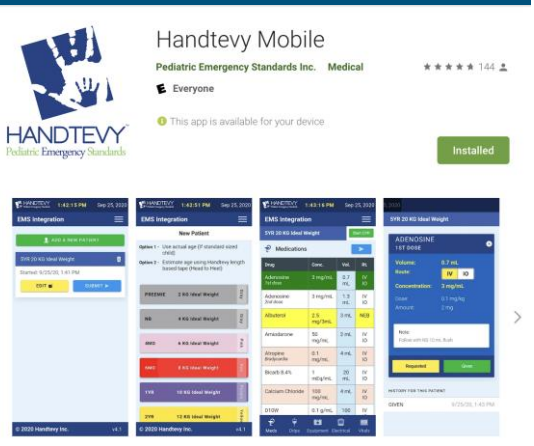
Objectives

- Understand how to utilize Handtevy and other resources during pediatric emergencies
- Understand key differences and similarities for adult and pediatric arrest
- Understand limitation of equipment for pediatric use
- Discuss techniques to improve team dynamics and quality of care during cardiac arrest
- Describe proper techniques for ventilation
- Describe advance techniques for BLS care
- Discuss switching protocol based on patient presentation

Handtevy





ID: LucasC

Password: LucasC

Email: the one you gave LCEMS. If you cannot remember, then please email myself or Brent

Pediatric Arrest

- EMS' low frequency high acuity event
- Are you ready?

How is LCEMS doing with Pediatric Arrests?

- Compression fraction is great! We are on the chest continuously
- Compression rate is too fast. 100 - 120 compressions per minute is the goal but during cardiac arrest, we are around 160 compressions per minute

Similarities between Pediatric and Adult arrest

- “Staying and playing” still the best outcome for patient. No need to rush to hospitals
- Run the cardiac arrest. First couple minutes should be focusing on good BLS care
- BLS before ALS

Intubation

- Respiratory reserve is small in the pediatric patient. Insults such as improper positioning, vomitus or airway narrowing can lead to major airway problems.

- In the pediatric patient, bag-mask ventilation can be as effective as ventilation through an endotracheal tube for short periods and may be safer. Repeated attempts at advanced airway placement should not be performed.

Ventilation

Tab 1100 Pediatric Pulseless Arrest Q-2

Preload

- Frank Sterling's Law - Preload (diastolic pressure) is lower in pediatric patients.

Approximate age groups	Approximate normal range of observations			
	Heart rate *(Beats per min)*	Respiratory rate *(Breaths per min)*	Blood pressure *(mmHg)*	
			Systolic	Diastolic
Neonate *(up to 1 month)*	100 – 165	30 – 60	65 – 85	35 – 50
Infant *(1 month to 1 year)*	90 –160	25 – 50	70 – 105	35 – 55
Toddler *(1 – 2 years)*	85 – 140	20 – 40	85 – 105	40 – 60
Pre–school child *(2 – 5 years)*	80 – 120	20 – 30	90 – 115	45 – 70
School age *(5 – 9 years)*	75 – 110	18 – 25	95 – 115	55 – 75
Pre–adolescence *(9 – 11 years)*	70 – 110	15 – 20	100 – 120	60 – 80
Adolescence *(12 – 16 years)*	65 – 100	12 – 20	105 – 130	65 – 80
Adult *(Over 16 years)*	60 – 95	12 – 20	110 – 130	65 – 85

Figure 1. Normal reference ranges for common physiological variables.

Autovent

The AutoVent (ATV), using pediatric settings, can deliver consistent tidal volume (TV) and rate. Consider its use on a basic facemask or advanced airway for better ventilatory control. The AutoVent should not be used on pediatric patients < 20Kg. Per Handtevy, thats around 5yo.

Tab 1100 Pediatric Pulseless Arrest Q-2

ResQPOD

- The ResQPOD (ITD) attached to a basic facemask and/or advanced airway improves hemodynamics during chest compressions and increases the likelihood of ROSC from a cardiac arrest state. The ResQPOD should be used in the pediatric patient > 1 year of age.

Differences

- Medication dosage
- Details become more important
- Epi target time
- End of life care

Epi Time

- We are aiming under 2 minutes!
- **This does not mean we skip good BLS**

End of Life Care

- Per our protocol, we should not be expiring efforts on scene. This is different than evidence not compatible with life!

Transport Considerations: Pediatric Pulseless Arrest

A. Any pediatric (<16) cardiac arrest not related to trauma or hemorrhage should be triaged to the closest "STEMI" / Cardiac Resuscitation Center. Upon notification, LCEMS Dispatch will determine the closest open facility, and assign med channel for MC contact.

B. "STEMI" / Cardiac Resuscitation Centers include McLaren St. Lukes, Mercy St. Vincent, Promedica Toledo, Promedica Flower, and Mercy St. Anne. **UTMC will not be utilized as a transport destination for pediatric cardiac arrest.**

Tab 1100
Pediatric Pulseless Arrest Q-3
10/2021

Scenario #1

- You are dispatched to a 10yo male for a difficulty breathing. Patient has a history of asthma and parents state he is not getting relief from his rescue inhaler that is out of date. He was running around prior and suddenly felt ill with lethargy and cyanosis around the lips. You hear wheezes walking up to the patient. Patient is the “ideal weight or avergae weight of 77lbs/35kg

- You initiate your respiratory distress protocol and your patient arrest!

Scenario #1 Continued

- What is the initial defibrillation Joules?
- What is the epinephrine dose?
- What is the second defibrillation Joules?
- What is the amiodarone dose?

Switching from one protocol from another

- What is important now?
- Previous question from ACLS

What is next?

- Hotwash?
- What went well? What went bad?
- Are you being available

Questions?

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