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RESPIRATORY THERAPY CODE PINK SIMULATION

Respiratory Therapy
Code Pink Simulation
(use new code pink no meconium on computer)

Overlay: Baby Ryan
Location: Labor Delivery

Synopsis: At delivery the baby is limp and unresponsive. Give the information that the baby is term & there is no meconium. Baby has poor tone and is blue. Baby weighs 3.3 kg. Baby is wet and handed to the learner.

Supplies:

2 chest x-rays (one with pneumothorax, and one after chest tube inserted)
ABG sheets x 2 (with pneumo, and after chest tube)
NRP box
Radiant warmer,
Suction
Towels
O2 supplies
Blue eye shadow (optional)
O2 tank
Tape
Clothes off
Sticky dots for heart and breath sound marker
Extension cord
Code pink cards

******* O2 monitor on**
******Blue light on**

NOTE: Let learner listen to heart and breath sounds for normals before starting simulation

State	Events	Minimal behaviors	Questions/teaching
State 1: **Apneic with HR 80** *blue light on *use **pause** button to stop 02 sat from getting too low *O2 monitor on only check O2 sat (increase shunt fraction to 0.5 if need Sat to fall)	Eyes closed Blue Unresponsive RR- No respiratory movement noted HR- 80 O2 sat-93 **When learner asks:** Poor tone	Asks if meconium is present Asks about muscle tone Asks if the baby is pink Asks if the baby is term Places baby on preheated radiant warmer with neck slightly extended Suctions mouth, then nose Dries body and head Repositions baby with next slightly extended Administers oxygen as necessary	
		Counts the heart rate Notices apnea Asks about cyanosis Slaps foot, flicks heel, or rubs back briefly Chooses correct-sized mask and positions the bag and mask correctly on baby Checks the seal by ventilating 2 to 3 times at appropriate pressure and observes for chest movement ***No chest movement** Repositions head and reapplies face mask Checks for and removes secretions Ventilates with mouth slightly open	

		Increases ventilation pressure Considers endotracheal intubation	
State	**Events**	**Minimal behaviors**	**Questions/teaching**
State 2 **apnea with a heart rate of 50** **Check O2 sat**	Apneic HR-50 Unresponsive O2 sat-70	Ventilates 30 seconds at a rate of 40-60 times per minute Achieves visible rise and fall of the chest Indicates need for orogastric tube if ventilation is required for longer than several minutes Counts heart rate by palpating the cord or auscultating the chest for 6 seconds Determines need to administer chest compressions due to HR of 50. Continues positive-pressure ventilation with 100% oxygen Locates appropriate position o lower one-third of baby's sternum Provides firm support for baby's back Uses fingertips of middle and index or ring fingers OR uses distal portion of both thumbs Compresses sternum approximately one-third of the anterior-posterior diameter of the chest Counts cadence of	

		"One-and-two-and-three-and –breathe-and…" Ensures that baby is ventilated during the pause after every third compression After 30 seconds of chest compressions, checks the heart rate by palpation/auscultation for 6 seconds while ventilation continues	
		Stops the ventilations Checks the heart rate by auscultation for 6 seconds	
		Resumes ventilations and chest compressions assesses adequate chest movement uses 100% oxygen assesses correct depth of chest compressions coordinates ventilations and chest compressions considers endotracheal intubation considers epinephrine continues chest compressions and ventilations for 30 seconds palpates umbilical pulse for 6 seconds while positive-pressure ventilation continues.	

State 3 **apneic with HR of 39** check O2 **When intubated** **(set fixed heart rate to 120)** **(decrease shunt fraction so sat rises to 90%)**	apneic HR-39 O2 sat 60	Intubates and places baby on vent Doctor is present and orders to intubate and vent settings Assists Dr. with intubation	
State 4 **On ventilator** *ED monitor view on *undo pause button *blue light off	HR-130 RR-24 O2 sat- 98% **When asked tell learner**: baby is full term, 3.3 kg	**Vent settings**: PIP 26, PEEP 4, Rate 24, I time .5, FIO2 80% Assesses for proper tube placement IE: Bilat breath sounds, chest x-ray, color, Sao2, chest rise, tube condensation, pediacap for exhaled co2. Assesses if vent settings are appropriate ABG's to be drawn in ½ hour	
State 5 **Pneumothorax** Stays in this state until told that chest tube is inserted Give chest x-ray and ABG results	HR- 160 RR- 67 O2 sat 75% **ABG results when asked:** Ph-7.53, CO2-28, Bicarb-22, PAO2-40	Draws ABG's Notes BS are markedly decreased on right side. Identifies possible causes of decreased BS Considers chest x-ray Considers translumination Concludes pneumothorax as cause for decreased BS Decides how to correct pneumothorax with vent and or other interventions (chest tube?) Decreases vent	

		pressures, increase O2 to 100% Plans to draw ABG's in ½ hour	
State 6 **Returns to normal** Give chest x-ray and ABG results	HR-130 Resp-38 O2 sat >90% **When learner asks:** **ABG results**= ph-7.41, CO2-39, Bicarb-22, PaO2 on 100%=320	Draws ABG's Decrease FiO2 to maintain SaO2 > 90%	