

Pediatric Respiratory Failure – Created by Kate Chappell Fall 2009

Beginning Patient State:

Parameter	Comment
Rhythm	Sinus bradycardia
HR	30
BP	60/40
RR	0
CO2	---
SpO2	50%
Temp	97.0 F
Breath Sounds	Clear
Airway State	Clear
Voice comments	None
Pulse strength	Weak
Color	Cyanosis, <i>cap refill 3 seconds</i>
	No movement, no sound

Range of Vital Signs:

Parameter	Max	Min
Rhythm	Sinus bradycardia	PEA
HR	100	5
BP	70/50	60/40
RR	0	0
CO2	---	
SpO2	92	10
Temp	---	---

Patient Monitor Parameters to display:

- SpO2
- EKG
- RR
- Pulse
- BP

Patient Information-Pediatric Respiratory Failure

Age 5 months old Race White Gender male

Weight 7 kg

History of Present Complaint: Patient Jack is on the pediatric floor. He was admitted this morning because of fever x 3 days and mental status changes (more irritable, periods of poor response to stimulation). He is on IV fluids at maintenance. The student nurse goes into the room because parent reports that baby doesn't look right.

Past Medical History: Healthy pregnancy, birth, and newborn periods. UTI x 1 at 2 months old. No other known health issues.

Medications: No daily medications, received Tylenol 60 mg po on admission for temp of 101.4; has a peripheral IV.

Allergies: Penicillin (anaphylaxis)

Other pertinent information:

Needed equipment/supplies-Pediatric Respiratory Failure

Oxygen flowmeter
Face Mask
Ambubag
SpO2 probe, monitor
ECG monitor
Blood pressure cuff
Stethoscope
Supplies for med administration
Peripheral catheter
Suction and catheter
Backboard
Thermometer
IV fluid bag choices including D5 1/2NS
Vial of Dextrose 50%

Manikin Set-up:

Semi-Fowler position in hospital bed
Peripheral IV placed
ID band with Patient Name, MR #, Allergies
Pulse ox placed

Flow Chart of Scenario Events-Pediatric Respiratory Failure

Manikin in initial state

Student to introduce self, wash hands, identify patient, obtain vital signs, assess patient.

Cue: If student does not introduce themselves, parent asks, "Who are you?"

Student to identify respiratory failure and begin administering oxygen via ambubag.

(1A) Event pressed: Oxygen (at least 10 L/min) via ambubag at 20 or more breaths/minute-

Sat to 80%, HR to 40

(1B) If student places oxygen via mask or provides ambubag at < 20/minute-

Sat to 40%, HR to 25

If student then provides desired oxygen source and rate above-

Sat to 80%, HR to 40

(1C) If student does not place oxygen within 1 minute-

Sat 30%, HR 25

If student then places oxygen, go with events as above (1A or 1B) based on oxygen delivery.

If student does not place oxygen within 1 minute of change, verbal prompt-
events as above with oxygen.

After progress through 1A or 1B, student to identify need for compressions.

(2A) Event pressed: Student providing 100 + compressions/minute-

Sat to 92%, less cyanosis

(2B) If student provides compressions at slower rate-

Sat to 82%

If student increases compression rate-

Go to 2A results

(2C) If student does not provide compressions within 1 minute-

Sat 30%, HR 15

If student then provides compressions- go to 2A or 2B

If student does not provide compressions within additional 30 seconds-

Sat 10%, HR 5

If continues without compressions, **stop scenario.**

If initiates compressions-go to 2A or 2B as appropriate

Student to call CODE at some point before now-if they have not, parent to ask “Shouldn’t you get some help?”

Students to reassess patient: HR 100, RR 0, BP 70/50, Sat 92%, Temp 97.0, some cyanosis, weak pulse, cap refill 2 seconds

(3A) Student restarts ambubag-

No change

(3B) Student does not continue ambubag within 1 minute-

HR to 60, RR 0, BP 60/40, Sat 60%, increased cyanosis

If Student restarts ambubag-

Go to 3A

If Student does not restart ambubag-

HR 40, RR 0, Sat 40% then **end scenario.**

Facilitator to report that lab results are back and give a student the report.

Student to recognize low glucose.

If Student uses glucometer, report result as 30.

If Student calls for orders, order for: Dextrose 3 grams IV slow push x 1.
Follows TORB procedure.

Student to administer dextrose using 5 rights, dilution.

End Scenario.

Labs and Diagnostic Findings-Pediatric Respiratory Failure

CBC

Hgbn 11.1 (11-16)

Hct 32.6%

WBC 9,900 (4500-11000)

Platelets 193,000 (150,000-400,000)

BMP

Na 139 (135-145)

K 3.9 (3.5-5.0)

CO2 30 (22-32)

Glucose 40 (fasting 70-110)

Calcium 9.7 (9-11)

Creatinine 0.8 (0.6-1.5)

BUN 12 (8-25)