

**No Respiratory Distress**

**Respiratory Distress**

# Bronchiolitis

Good PO  
RR<40  
Sat<94%  
Well appearing

Poor PO RR>40 Sat<94%

Poor Ventilation/  
Oxygenation  
**Start Racemic Epi,  
and IV Fluids**  
Plan Ventilatory  
Support

Good PO, RR<40, Sat>94%

Suction - Afrin

No Δ

Good PO, RR<40, Sat>94%

Albuterol  
25% respond

No Δ

Poor Oxygenation/Ventilation and unlikely to respond to vaponeprhine

Racemic Epi  
+/- 3% NS  
40% respond

Poor Ventilation/Oxygenation or Repeat Vaponeprhine, than start IV fluids

Improved

**D/C**

Good PO, RR<40, Sat>94%

3/2/1 Rule

PICU or IMU

Worse or No Δ

3% NS Neb

High Flow

BiPap +/- Ketamine

Heliox or Nitric Oxide 20ppm

Intubation

2/1 Rule

Improved and intubation avoided

## Albuterol Nebs and Dosing

- Albuterol 0.6mg/ml over 1hr = 10mg
- Albuterol 0.9mg/ml over 1hr = 15mg
- Albuterol 1.3mg/ml over 1hr = 20mg
- Albuterol 90 mcg/puff – 2-4 puffs
- Xopenex 44mcg/puff – 4-6 puffs

## Steroid Dosing

- Methylprednisolone 2mg/kg,  
max 60mg/dose
- Prednisolone 2mg/kg  
max 60mg/dose

## Vaponephrine (Racemic Epinephrine)

- 0.5ml per neb



## 2/1 Spacing Rule

- 2 hours = floor
- 1 hour = PCU (step down)
- Continuous Albuterol or Vapo = PICU

## 3/2/1 Spacing Rule

- 3 hours = home
- 2 hours = floor
- 1 hour = PCU (step down)
- Continuous Albuterol or Vapo = PICU

## Action Plan

- Xopenex 4-6 puffs q 4 hrs for 2d, then 2-4 puffs q 4 hrs day.**
- Acute worsening then trial of 6 puffs, wait one hour and take 6 more puffs, if no improvement then go to ER**
- Albuterol 4 puffs q 4 hrs for 2d, then 2 puffs q 4 hrs day.**
- Acute worsening then trial of 6 puffs, wait one hour and take 6 more puffs, if no improvement then go to ER**

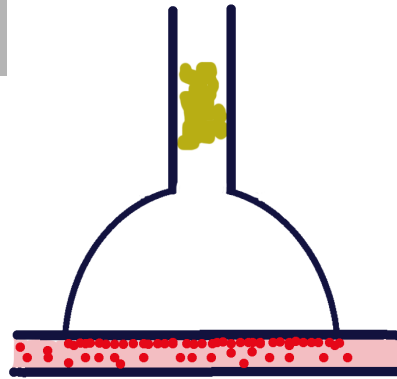
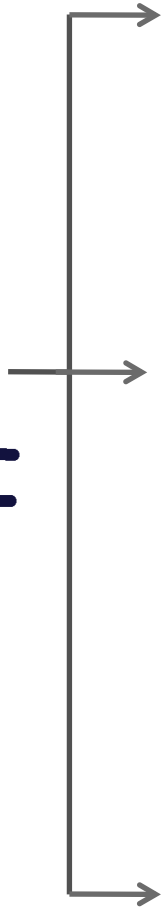
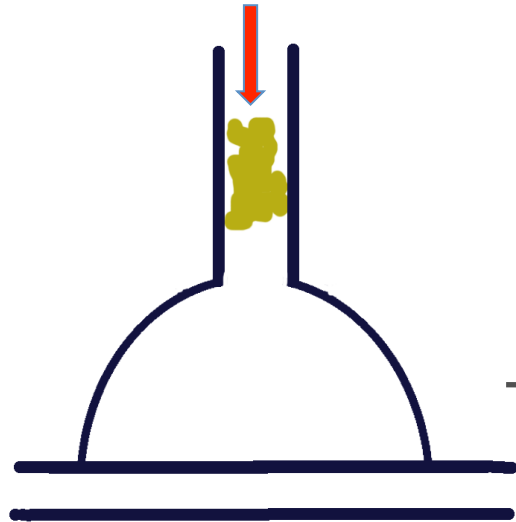
## Persistent Respiratory Rate >60

- NPO – risk of aspiration
- IV and hydrate

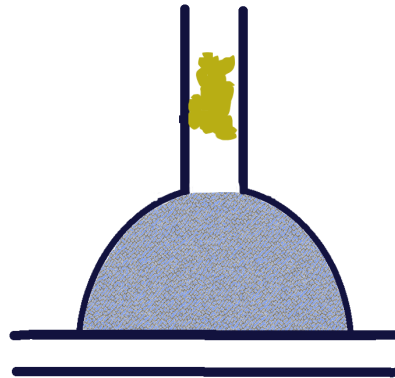
Clinical Respiratory Score (CRS)			
Assess	Score 0	Score 1	Score 2
Respiratory Rate	<2 mos <50 2-12 mos <40 1-5 yrs < 30 >5yrs<20	<2 mos 50-60 2-12 mos 40-50 > 1-5 yrs 30-40 >5yrs20-30	<2 mos > 60 2-12 mos > 50 > 1-5 yrs > 40 >5yrs>30
Auscultation	Good air movement, scattered expiratory wheezing, loose rales/crackles.	Depressed air movement, inspiratory and expiratory wheezes or rales/crackles.	Diminished or absent breath sounds, severe wheezing, or rales/crackles, or marked prolonged expiration.
Use of Accessory Muscles	Mild to no use of accessory muscles. Mild to no retractions, nasal flaring on inspiration.	Moderate intercostal retractions, mild to moderate use of accessory muscles, nasal flaring.	Severe intercostal and substernal retractions, nasal flaring.
Mental Status	Normal to mildly irritable	Irritable, agitated, restless.	Lethargic
Room Air SpO <sub>2</sub>	> 95%	90-95%	<90%
Color	Normal	Pale to normal	Cyanotic, dusky

# SHUNT PHYSIOLOGY

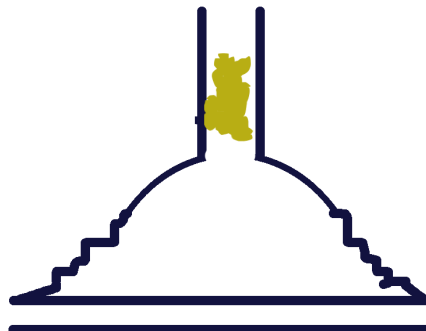
Upper airway  
constriction



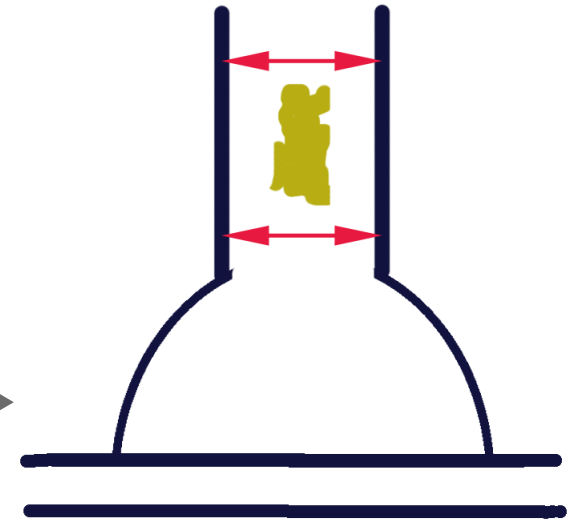
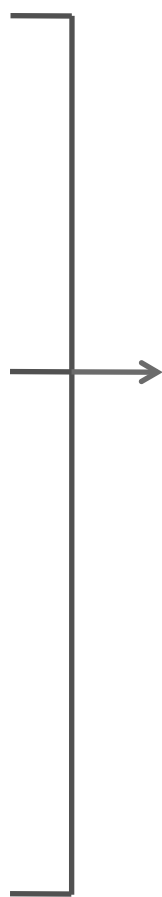
Increased CO



Pul Edema and  
Consolidation



Atelectasis



## Upper Airway Dilation

- allows oxygenation
- facilitates pulmonary toilet for edema and consolidation
- increases PEEP and decreases atelectasis