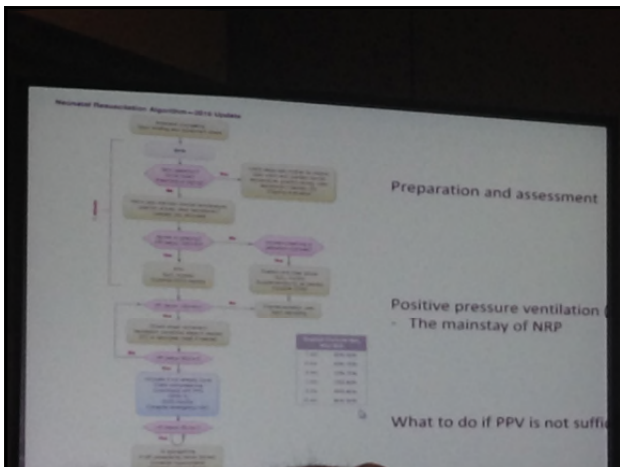


All Things Small...

Update





Preparation

- Delayed cord clamping for 30 to 60 seconds for most vigorous term and preterm newborns
- If placental circulation is not intact (bleeding), the cord should be clamped immediately after birth.

Neonatal Resuscitation Algorithm—2015 Update

```
graph TD; A[Placental clamping: When bleeding and placental clamping] --> B[Birth]; B --> C{Term gestation? (Gestational age? Breathing or crying?)}; C -- No --> D[Warm and maintain normal temperature. position airway, clear secretions if needed, dry, stimulate]; C -- Yes --> E[Refer steps with mother for routine care. Warm and maintain normal temperature. position airway, clear secretions if needed, dry, stimulate]; D --> F{Apnea or gasping? (Full term, vigorous?)}; F -- No --> G[Refer to step 10]; F -- Yes --> H[Refer to step 10];
```

Preparation and assessment

- Infants (whether vigorous or not) do not require routine intubation and tracheal suctioning.

Neonatal Resuscitation Algorithm—2015 Update

```
graph TD; A[Placental clamping: When bleeding and placental clamping] --> B[Birth]; B --> C{Term gestation? (Gestational age? Breathing or crying?)}; C -- No --> D[Warm and maintain normal temperature. position airway, clear secretions if needed, dry, stimulate]; C -- Yes --> E[Refer steps with mother for routine care. Warm and maintain normal temperature. position airway, clear secretions if needed, dry, stimulate]; D --> F{Apnea or gasping? (Full term, vigorous?)}; F -- No --> G[Refer to step 10]; F -- Yes --> H[Refer to step 10];
```

Assessment

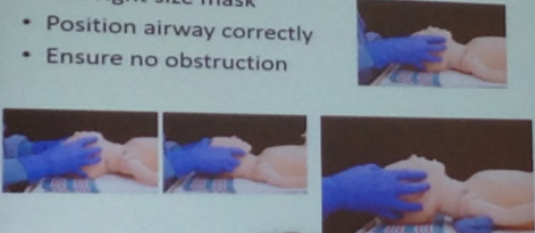
- Whether resuscitation is required depends on:
 - Respirations (apnea / gasping?)
 - Heart rate (above or below 100 / minute)

1 minute

```
graph TD; A{Term gestation? (Gestational age? Breathing or crying?)} -- No --> B[Warm and maintain normal temperature. position airway, clear secretions if needed, dry, stimulate]; A -- Yes --> C[Refer to step 10]; B --> D{Apnea or gasping? (Full term, vigorous?)}; D -- No --> E[Refer to step 10]; D -- Yes --> F[Refer to step 10];
```

Effective ventilation is key feature of NRP

- Use right size mask
- Position airway correctly
- Ensure no obstruction



Oxygen

- Initial ventilation of term infants is with 21% oxygen
- Initial ventilation of preterm infants is with 21% to 30% oxygen

Oxygen

- Adjust oxygen guided by pulse oximetry

Target Pre-ductal 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%

Effective ventilation is key feature of NRP
- how do we assess?

- The most sensitive indicator of successful response to resuscitation is heart rate.
- Auscultation and palpation for heart rate are often inaccurate during neonatal resuscitation.

```
graph TD; A[PPV, SpO2 monitor, Consider ECG monitor] -- Yes --> B{HR below 100/min?}
```

Alternative airway

- Intubation
- (recommended prior to CPR)
- Laryngeal mask

Chest compressions

- Most neonatal events are due to respiratory failure
- Neonatal CPR is different from older patients:
 - 3 compressions to 1 breath in 2-second interval
 - 90 compressions / 30 breaths per minute
 - Coordinated even after intubation



