IN THE NAME OF GOD

Delivery Room Management Of Hydrops Fetalis

Roya Oboodi
Assistant Professor Of Neonatology
Shiraz University Of Medical Science

General Management

- Requires close **collaboration** between the perinatologist and neonatologist

Taking care at a **tertiary center**

- **Intrauterine intervention**
- **Advanced neonatal resuscitation**
- **Pediatric surgery**
- **Mechanical ventilatory support**
- **Exchange transfusion**

Postnatal Management

- **Initial Resuscitation (delivery room)**

- **Further management (NICU)**

- Considering **increased** risk of **birth trauma** due to **soft tissue dystocia**
- **Cesarean**: for routine obstetrical indications

however; the likelihood of cesarean delivery increases because of the high frequency of nonreassuring fetal heart rate patterns and dystocia

Delivery Room Management

- **Focus on team work (team briefing):**

  Assess perinatal risk factors

  Identify team leader

  Delegate tasks

  Document events

  Determine what supplies and equipment will be need

What is the ideal number of personnel?

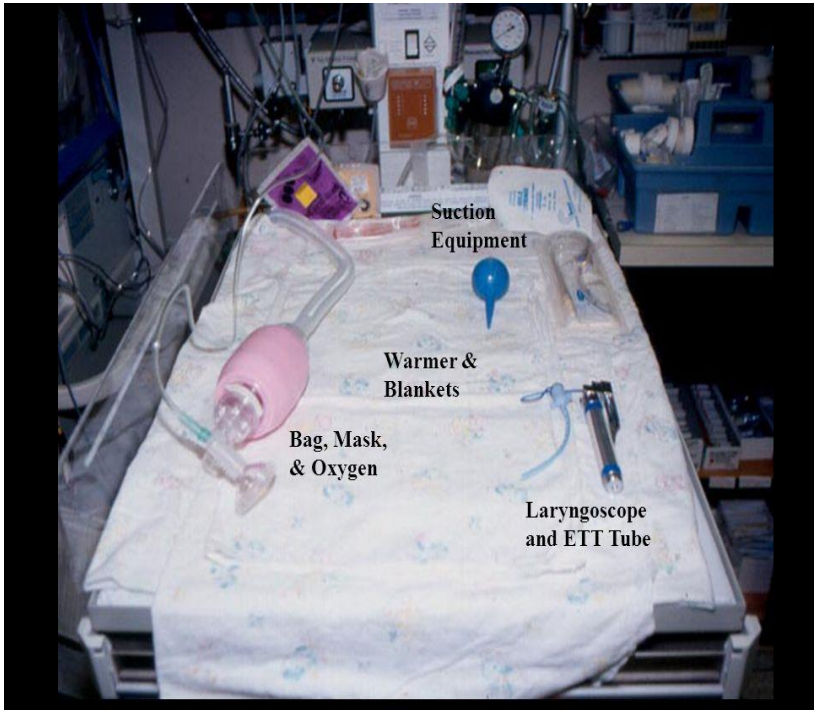
- **low risk delivery**: at least **one person** who is capable of initiating **PPV** & assisting **chest compression**
- **High risk of resuscitation**: at least **two persons** (**skilled in complete resuscitation**)
- For a **complex resuscitation: 4 or more people**

Delivery Room Management of hydrops fetalis

- Anticipate **the needs of the most severely affected infant**
- Anticipate **the need to drain fluid** for significant ascites, pleural effusions or pericardial effusions compromise ventilation or cardiac output
- Anticipate **the need to transfuse** (O^-) blood for severe anemia

Equipment check

- Turn on radiant warmer
- Check resuscitation equipment



Initial Steps Of Neonatal Resuscitation

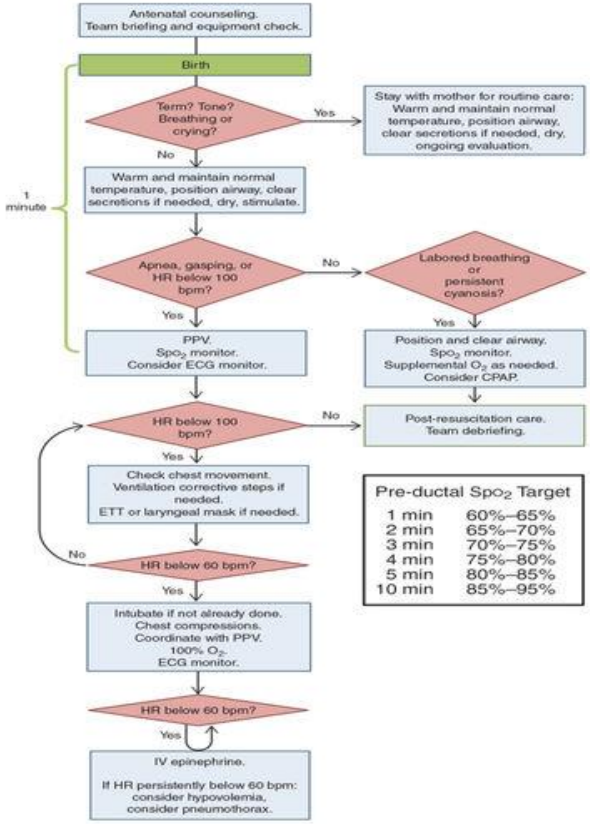
Initial Steps Of Neonatal Resuscitation

- Provide warmth
- Position head
- Clear airway
- Dry
- Stimulate

Carrier 11:54 AM 100%

NRP

Foundations of Neonatal Resuscitation



Source: Weiner, G. M., & Zaichkin, J. (2016). Textbook of Neonatal Resuscitation, 7th Edition. Elk Grove Village, IL: American Academy of Pediatrics.

Breathing

- Most infants require **endotracheal intubation**
- **Drainage of pleural effusions and ascites**, if adequate ventilation is not achieved with PPV
- Provide high levels of positive end-expiratory pressure through **neopuff**
- **Surfactant therapy;** for evidence of surfactant deficiency in premature infants
- **Mechanical ventilatory support**, even following drainage (pulmonary hypoplasia or RDS)

Circulation

- **Umbilical vein catheterization**: for monitoring pressures and obtaining blood for testing, administration of fluids, medications, and for partial exchange transfusion
- **Fluid resuscitation** in infants near cardiovascular collapse (normal saline)
- **Inotropic support** (eg, dopamine) to improve cardiac output
- **Isovolemic partial exchange** transfusion with O^- packed cell for known or suspected severe fetal anemia or anemic heart failure (HCT<30%)

Examination of the infant and placenta

Once the cardiopulmonary systems are stabilized; examination of the infant and the placenta is performed to determine the underlying cause of hydrops fetalis

With my great thanks for your attention