STANDARD TREATMENT WORKFLOW (STW)

Respiratory Distress in Neonates


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Deorari AK, et al.: Respiratory Distress in Neonates

Standard Treatment Workflow (STW)

**RESPIRATORY DISTRESS IN NEONATES**

**ICD-10-P22.0**

**ACTIONS**
- Rapid assessment of TABC (temperature, airway, breathing, circulation) and stabilize the baby
- Admit the baby to NICU
- Nurse in a radiant, warm/孵化器, monitor with continuous pulse oximetry
- Quantify the severity of RD using Silverman Anderson Score (SAS)
- Gently monitor SAPS, SpO2, and CTT
- Most neonates with RD can be fed enterally by breastfeeding (TRH>70 bpm and not on respiratory support) or orogastric tube. Those with severe distress or any contraindication to enteral feeding should be aplan IV fluids

**GOALS**
- To alleviate the work of breathing by providing appropriate respiratory support
- To maintain oxygen saturations from 91% to 95%
- Identify and treat the underlying cause

**RESPIRATORY SUPPORT**
- SpO2 < 91%: Oxygen by nasal prongs (NP) 0.5 - 1.0 Lpm (max. 2 Lpm)
- Cessation > 32 weeks: CPAP if SAS 4 OR no improvement with NP oxygen
- Respiration > 32 weeks: CPAP if SpO2 < 91% OR SAS 1-3
- Those with severe RD (SAS of 5), RDS of more than 60-70% or unresponsive to CPAP, having shock or repeated episodes of apnea, may require mechanical ventilation and referral (See STW on Transport)

**RESPIRATORY DISTRESS OR LOW SpO2 (<91%)**

- Start oxygen by nasal prongs @ 0.5 - 1 Lpm
- Increase flow up to 2 LPM
- Consider using oxygen hood if no reactions/great
- Monitor clinically and SpO2
- No improvement
- Consider CPAP

**ASSESS AND TREAT THE UNDERLYING CAUSE**
- **RESPIRATORY DISTRESS SYNDROME (RDS):** Consider surfactant replacement therapy as per indication
- **PNEUMONIA-SEPSIS:** Treat with antibiotics as per unit’s protocol (refer to sepsis STW)

**WHAT NOT TO DO**
- DO NOT (ie SpO2 exceeds 95%) while supplementing oxygen. High oxygen saturation is a risk factor for retinopathy of prematurity
- DO NOT give unnecessary IV fluids, antibiotics, blood products or drugs
- DO NOT perform unnecessary investigations (CBC, CRP, routine ABG)
- DO NOT do routine chest X-ray in all neonates with RD. Perform chest X-ray if RD is persisting beyond 6 hours of age, there is worsening of a diagnostic dilemma

**ABBREVIATIONS**
- BW: Birth weight
- CPRP: Continuous positive airway pressure
- CFT: Capillary filling time
- GA: Gestational age
- I: Intravenous
- Rb: Respiratory distress
- SAS: Silverman Anderson Score
- RB: Respiratory rate

**REFERENCES**

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**PREVENT HYPOXIA AND HYPOXIA**

This STW has been prepared by national experts of India with hostility considerations for different levels of healthcare system in the country. These guidelines are advisory and are based on expert opinions and available scientific evidence. They may be variations in the management of an individual patient based on his/her specific, condition, as decided by the treating physician. There will be no indemnity for direct or indirect consequences. Kindly visit the website of DHI for more information. www.icmr.org.in/ for more information.