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Department of Health Research
Ministry of Health and Family Welfare, Government of India

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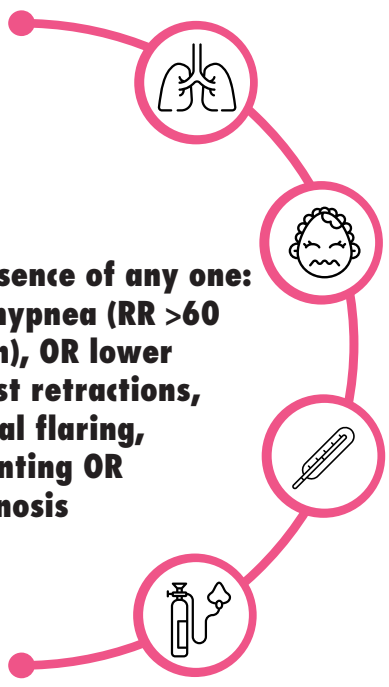
Standard Treatment Workflow (STW)

RESPIRATORY DISTRESS IN NEONATES

ICD-10-P22.0



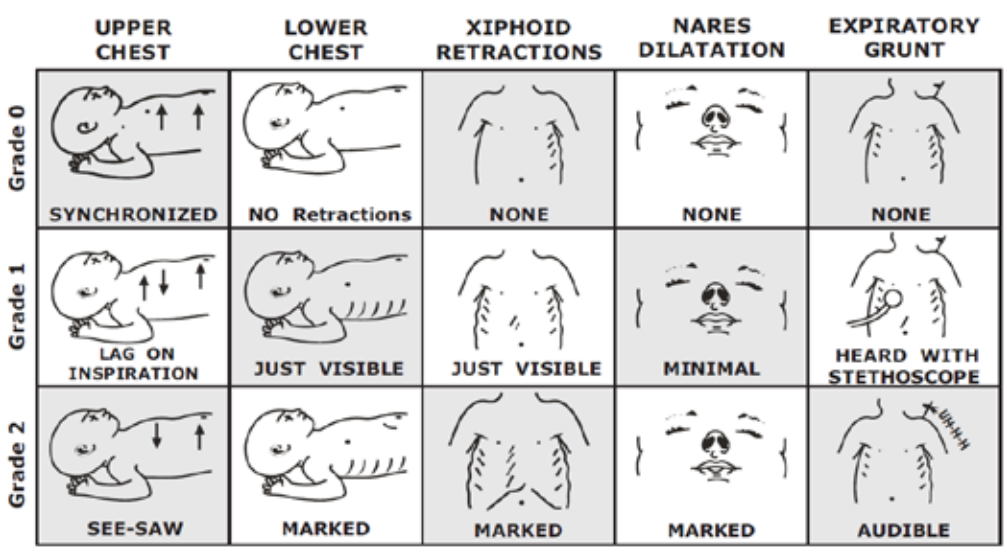
Presence of any one: Tachypnea (RR >60 bpm), OR lower chest retractions, nasal flaring, grunting OR cyanosis

ACTIONS

- Rapid assessment of TABC (temperature, airway, breathing, circulation) and stabilize the baby
- Admit the baby in SNCU/NICU
- Nurse in a radiant warmer/incubator; monitor with continuous pulse oximetry
- Quantify the severity of RD using Silverman Anderson Score [SAS]
- Closely monitor RR, SAS, SpO2, and CFT
- Most neonates with RD can be fed enterally (by breastfeeding [if RR<70 bpm and not on respiratory support] or orogastric tube). Those with severe distress or any contraindication to enteral feeding should be given IV fluids

GOALS

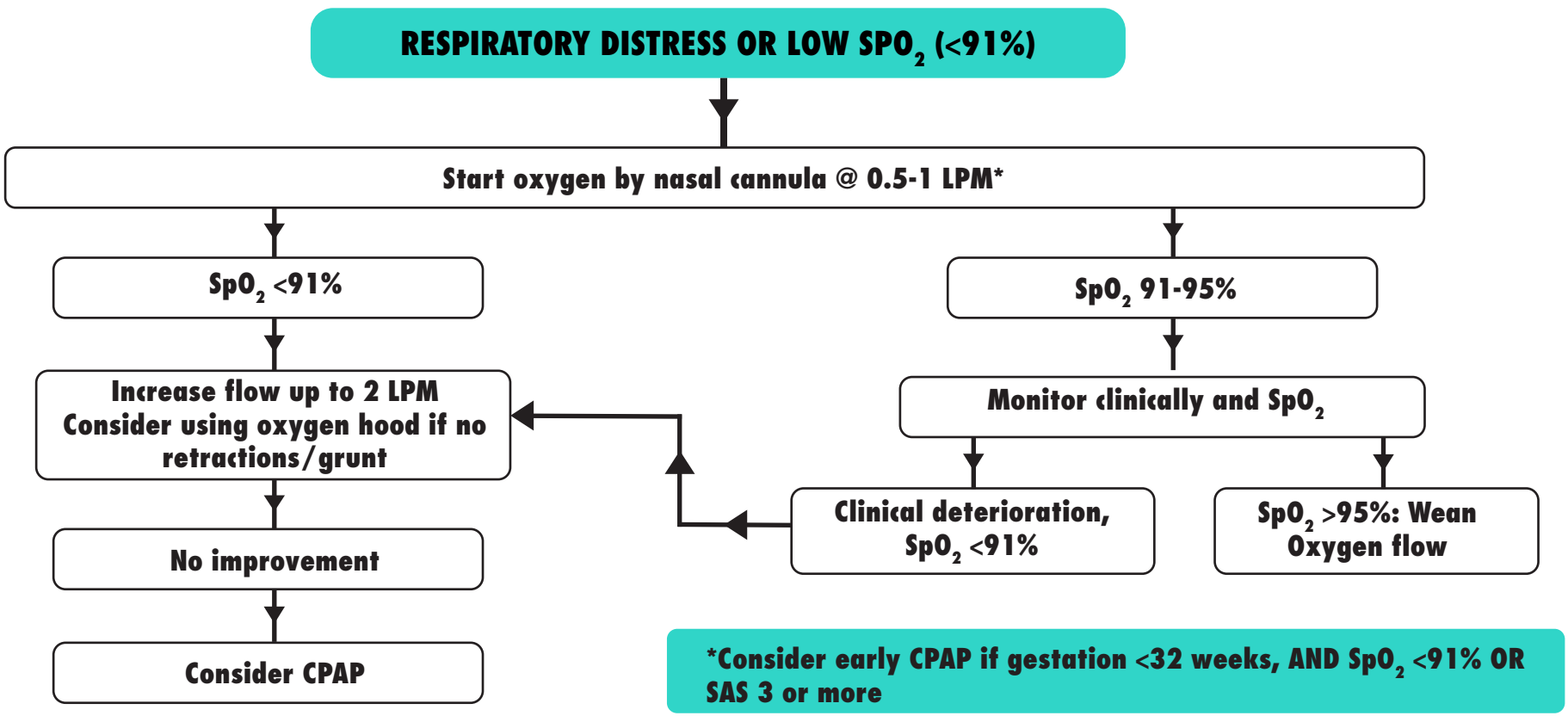
- To alleviate the work of breathing by providing appropriate respiratory support
- To maintain oxygen saturations from 91% to 95%
- Identify and treat the underlying cause



SILVERMAN ANDERSON SCORE (SAS)

RESPIRATORY SUPPORT

- SpO_2< 91%: Oxygen by nasal prongs(NP) 0.5 -1.0 Lpm (max. 2 Lpm)
- Gestation ≥ 32 weeks: CPAP if SAS 4 >, OR no improvement with NP oxygen
- Gestation < 32 weeks: CPAP if SpO_2< 91% OR SAS 1-3
- Those with severe RD (SAS of 5 >; FiO2 of more than 60-70%), unresponsive to CPAP, having shock or repeated episodes of apnea, may require mechanical ventilation and referral (See STW on Transport)



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 let SpO_2 exceedc 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 or a diagnostic dilemma

ABBREVIATIONS

BW: Birth weight
CPAP: Continuous positive airway pressure
CFT: Capillary filling time
GA: Gestational age
IV: Intravenous
RD: Respiratory distress
RR: Respiratory rate
SAS: Silverman Anderson score

REFERENCES

1. Oxygen therapy in neonates, and Surfactant Replacement therapy in neonates. Evidence-based Clinical Practice Guidelines. National Neonatology Forum India. Available at www.nnfi.org/cpg

☛ PREVENT HYPOXIA AND HYPEROXIA