STANDARD TREATMENT WORKFLOW (STW)

Respiratory Distress in Neonates

Ashok K Deorari[1], Praveen Kumar[2], Adhisivam B[3], Anu Sachdeva[4], Ashish Jain[5], Ashish Mehta[6], Asim Kumar Mallick[7], Damera Yadaiah[8], Deepak Chawla[9], Geeta Gathwala[10], Gopal Agrawal[11], J Kumutha[12], K Venkatnarayan[13], M Jeeva Sankar[14], Mangala Bharathi S[15], Nandkishor S Kabra[16], Neelam Kler[17], Neeraj Gupta[18], Nishad Plakkal[19], Poorva Gohiya[20], Ramesh Agarwal[21], Rhishikesh Thakre[22], Ruchi N. Nanavati[23], S. Giridhar[24], Sandeep Kadam[25], Sarita Verma[26], Shiv Sajan Saini[27], Siddarth Ramji[28], Sindhu Sivanandan[29], Sridhar Santhanam[30], Srinivas Murki[31], Suja Mariam G[32], Suksham Jain[33], Suman Rao PN[34], Sushma Nangia[35], Tapas Som[36], Venkataseshan Sundaram[37]

[1]All India Institute Of Medical Science, New Delhi; [2]Postgraduate Institute of Medical Education and Research, Chandigarh; [3]Jawaharlal Institute of Postgraduate Medical Education & Research, Puducherry; [4]All India Institute Of Medical Science, New Delhi; [5]Maulana Azad Medical College (MAMC), New Delhi; [6]ANCC, Ahmedabad; [7]Nil Ratan Sircar Medical College and Hospital, Kolkata; [8]Govt Hospital Nalgonda.Mother And Child Helth Center, Nalgonda; [9]Government Medical College & Hospital, Chandigarh; [10]Pandit Bhagwat Dayal Sharma Post Graduate Institute of Medical Sciences, Rohtak; [11]CH, Gurgaon; [12]Stanley Medical College, Chennai; [13]NITI Ayog, New Delhi; [14]All India Institute Of Medical Science, New Delhi; [15]Madras Medical College, Chennai; [16]SH, Mumbai; [17]Sir Ganga Ram Hospital, New Delhi; [18]All India Institute Of Medical Science, Jodhpur; [19]Jawaharlal Institute of Postgraduate Medical Education & Research, Puducherry; [20]Gandhi Medical College, Bhopal; [21]All India Institute Of Medical Science, New Delhi; [22]NCH, Aurangabad; [23]KEM, Mumbai; [24]Chettinad Hospital And Research Institute, Chennai; [25]KEM Hospital, Pune; [26]Tata Institute of Social Sciences, Mumbai; [27]Postgraduate Institute of Medical Education and Research, Chandigarh; [28]Maulana Azad Medical College (MAMC), New Delhi; [29]Jawaharlal Institute of Postgraduate Medical Education & Research, Puducherry; [30]Christian Medical College, Vellore; [31]PCH, Hyderabad; [32]Sri Ramakrishna Hospital, Coimbatore; [33]Government Medical College & Hospital, Chandigarh; [34]St John's Medical College Hospital, Bengaluru; [35]Lady Hardinge Medical College, New Delhi; [36]All India Institute of Medical Sciences, Bhubaneswar; [37]Postgraduate Institute of Medical Education and Research, Chandigarh

CORRESPONDING AUTHOR

Dr. Ashok K Deorari, Department of Neonatology, All India Institute of Medical Science, New Delhi
Email: ashokdeorari_56@hotmail.com

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Standard Treatment Workflow (STW)

RESPIRATORY DISTRESS IN NEONATES

ICD-10-P22.0

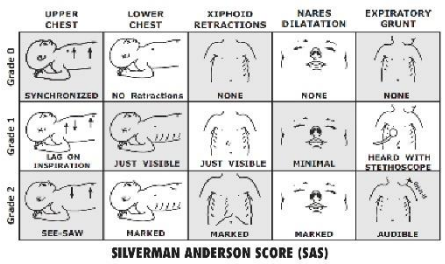
Presence of any one: Tachypnea (RR >60 bpm), OR lower chest retractions, nasal flaring, grunting OR cyanosis

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

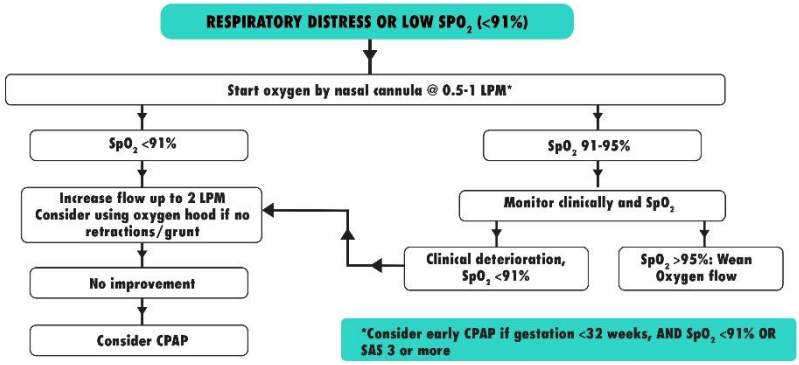
- To alleviate the work of breathing by providing appropriate respiratory support
- To maintain oxygen saturations from 91% to 95%
- Identify and treat the underlying cause



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