

1. Supplementary information

	Patho-physiology	Risk Factors	Presentation	Investigations	Prognosis/ Treatment
TTN (Transient Tachypnea of the Newborn) "Wet Lung"	Delayed absorption/clearance of fetal lung fluid	-Term or preterm -Short labor -C-section -Infant of diabetic mother	-Tachypnea, -Occasionally grunting and nasal flaring -Onset immediately after birth -Resolves over 24-72 hrs	ABG: mild to moderate hypoxemia, respiratory acidosis CXR: ↑ interstitial markings, fluid in fissures, pleural effusion	Full recovery in 2-5 days Responds well to O ₂
RDS (Respiratory Distress Syndrome) / HMD (Hyaline Membrane Disease)	Lack of pulmonary surfactant	-Preterm -IDM -Short labour -C-section -Asphyxia -Acidosis -Sepsis, MAS	-Resp distress begins at or within few hrs of birth -Worsen over next 24-72hrs	<u>ABG</u> : hypoxemia, resp acidosis <u>CXR</u> : "ground glass", diffuse atelectasis, air bronchograms, ↓ lung volumes	May require continuous positive pressure ventilation Need surfactant replacement
MAS (Meconium Aspiration Syndrome)	-10-15% of infants are meconium stained, of these, 5% develop MAS -Aspiration can occur before, during, or after delivery -Meconium causes airway obstruction and chemical pneumonitis	-Term or post term -Fetal distress in utero (passage of meconium in amniotic fluid may represent fetal hypoxemia)	-Meconium present -Varying degrees of respiratory distress within hrs of birth -Barrel shaped chest -Audible rales or rhonchi	<u>CXR</u> : patchy areas of atelectasis and overinflation 10-20% have pneumothorax	<u>In utero</u> : monitor for fetal distress <u>During labour</u> : intrauterine amnioinfusion <u>Delivery of head</u> : suction oropharynx <u>At birth</u> : intubation, suctioning below the vocal cords
Pneumo-nia/ Sepsis	Inflammation of pulmonary tissues Associated with	-Prolonged rupture of membranes -Maternal	-Respiratory distress -Temp instability	<u>CXR</u> : Depends on cause (GBS: bilat. conso-lidations, air	Treat with broad spectrum antibiotics

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	consolidation of alveolar spaces In neonates: must consider sepsis	fever -Mother is a GBS carrier	-Lethargy -Poor feeding -Jaundice -Apnea	bronchograms) <u>Blood Culture</u> : may be positive Elevated WBC's or neutropenia	until cause of pneumonia is identified and sepsis is ruled out
Congenital Diaphragmatic hernia	Loops of bowel in chest area via defect in diaphragm Hypoplastic lungs	Often associated with other anomalies (CVS, CNS, GI)	-Respiratory distress -Cyanosis -Scaphoid abdomen -Barrel chest -Dullness to percussion -Absent breath sounds -Asymmetric chest wall mvmt	<u>CXR</u> : portion of GI tract in thorax (usually left), displaced mediastinum	Treatment and prognosis depends on the degree of lung hypoplasia as well as the presence of associated anomalies
PPHN (Persistent Pulmonary Hyper-tension of the Newborn)	-Persistence of fetal circulation -Right to left shunt via PDA, PFO, intrapulmonary channels -↓ pulmonary blood flow and hypox-emia cause pulmonary vasoconstriction	-Asphyxia -MAS -RDS -Structural abnormalities (Diaphragmatic hernia, congenital heart disease)	-Respiratory distress -Cyanosis -May have CHF (active precordium, gallop rhythm, single S2, poor capillary refill, weak pulses, hepatomegaly)	<u>CXR</u> : abnormal pulmonary vascularity Cardiomegaly <u>Echo</u> : increased pulmonary artery pressure, right to left shunt	O2 given early May require surgical correction of heart defect