

COMPLICATIONS OF PRETERM BIRTH (PTB)

Definition of PTB: < 37⁺⁰ wks Late preterm: $34^{+0} - 36^{+6}$ wks Extremely preterm: < 28⁺⁰ wks

INITIAL ASSESSMENT

Does the baby...

- appear full term? (Ballard Scale)
- have good muscle tone? 2.
- appear to be breathing or crying?

If **no** to any □ stimulate, position airway, suction, and provide ventilatory support as needed.

ETIOLOGY					
Maternal factors	Placental/Uterine factors	Fetal factors			
 History of prior preterm delivery Extremes of age (< 17 y.o., >35 y.o.) Medical conditions (hypertension, diabetes) Substance use/smoking 	 Intrauterine stretch (i.e multiple gestation) Infection (i.e. chorioamnionitis, bacterial vaginosis) Placental insufficiency Uterine anomalies 	 Congenital anomalies (i.e. CNS defects) Intrauterine growth restriction Fetal distress 			

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PRESENTATION

MANAGEMENT

Respiratory

Respiratory Distress Syndrome: lack of surfactant

atelectasis

Apnea of Prematurity: episodes of apnea > 20s or shorter if associated with change in vitals due to immature respiratory control

Antenatal corticosteroids as prophylaxis. Surfactant and respiratory support.

Caffeine maintenance. Stimulation/Respiratory support during episodes. Self-resolving by 37 weeks.

Cardiac

Patent Ductus Arteriosus: Delayed closure of fetal shunt, leads to systemic hypoperfusion Ibuprofen/acetaminophen/indomethacin to induce closure. Fluid restriction. Surgical ligation if needed.



Necrotizing Enterocolitis: Necrosis of intestinal mucosa due to infection. Presents with feeding intolerance, bloody stool, obstruction and/or perforation

NPO, Gastric decompression, IV Fluids, IV antibiotics, surgery if evidence of perforation.



Intraventricular Hemorrhage: Intracranial bleeding, multifactorial causes

U/S screening if <32 wks, serial monitoring. Neurosurgical consult if abnormal.



Retinopathy of Prematurity: proliferation of retinal blood vessels. If untreated, can cause blindness

Screening if \leq 30 wks GA. Laser photocoagulation and anti-VEGF (vascular endothelial growth factor).



Sepsis: Most commonly due to Group B

Strep and E. Coli

IV antibiotics; supportive care



Hypoglycemia **Anemia** Hyperbilirubinemia Hypoglycemia: Increase feeds, IVF, TPN Anemia: Iron supplements, transfusions **Hyperbilirubinemia**: Phototherapy