

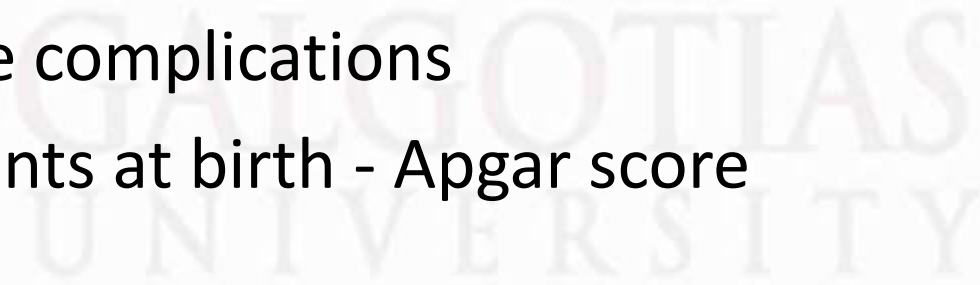
High -Risk Newborn

Lecture 1



Who Is an At-Risk Infant?

- Risk of morbidity or mortality
 - Prenatal and intrapartal risk factors
 - Neonatal factors
 - Gestational age
 - Size
- Anticipate complications
- Assessments at birth - Apgar score



High Risk Infant: Overview of Class

- Congenital anomalies
- Characteristics and potential problems
 - Preterm & post term
 - Small for gestational age & large for gestational age
- General concerns
 - Thermoregulation
 - Hypoglycemia
 - Respiratory distress and complications
 - Hyperbilirubinemia
- Psychosocial neonate & family needs

Congenital Anomalies Diaphragmatic Hernia

- Abdominal contents herniate through diaphragm
- Respirations are compromised
- Signs
 - Respiratory distress and cyanosis
 - Barrel shape chest, scaphoid abdomen
 - Asymmetric chest expansion
 - Absent breath sounds on effected side
 - Bowel sounds in chest

Congenital Anomalies: Diaphragmatic Hernia

- Interventions
 - Oxygen
 - Respiratory support without over inflating
 - Gastric decompression
 - Head of bed elevated
 - Turn to affected side
 - ECMO
 - Surgical repair

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Congenital Anomalies: Tracheo-Esophageal Fistula

- Connection between the trachea and esophagus
 - Proximal esophagus ends in blind pouch and distal esophagus joined to trachea
- Signs
 - Increased oral secretions
 - Coughs and choking
 - Abdominal distention
 - Not able to pass nasal or oral gastric tube
 - Struggles with feeding

Congenital Anomalies: Tracheo-Esophageal Fistula

- Interventions
 - Withhold feedings
 - Elevate head of bed
 - Suction to blind pouch to decrease aspiration
 - Surgery

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Congenital Anomalies: Neurotubular Defects

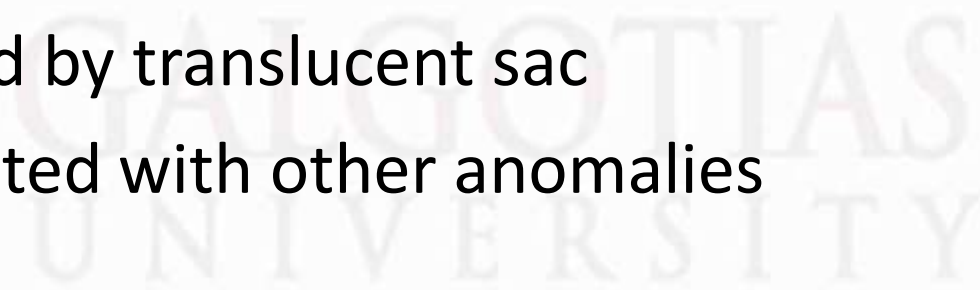
- Tissue protruding through vertebral column
 - Meningocele
 - Meningomyelocele
- Impairment
 - Location and magnitude of defect determines extent of neuro impairment
 - Sensory impairment follows motor, affects bladder and anal sphincter, contractures and deformities

Congenital Anomalies: Neurotubular Defects

- Intervention
 - Pregnancy -- Folic acid and Alpha fetal protein
 - Sterile, moist, normal saline dressing
 - Prevent infection
 - Decrease trauma
 - Monitor for changes in fluid and heat loss
 - Surgical repair, keep prone with legs flexed, no diaper over incision
 - Long term: hydrocephalus, wheelchair, braces, catheterization

Congenital Anomalies: Gastrocele and Omphalocele

- **Gastroschisis**
 - Abdominal contents protrude through wall
 - No sac covering intestines
- **Omphalocele**
 - Abdominal contents protrude into umbilical cord
 - Covered by translucent sac
 - Associated with other anomalies



Congenital Anomalies: Gastrocele and Omphalocele

- Interventions
 - Warm, moist, sterile dressing and plastic wrap
 - Maintain hydration and temperature
 - Position supine or side
 - Gastric decompression
 - Surgical repair
 - Complications

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Congenital Anomalies: Choanal Atresia

- Occlusion at nasopharynx
- Signs
 - Snorting respirations
 - Difficulty breathing with feedings
 - Cyanosis
- Interventions
 - Assess patency of nares
 - Maintain airway with oral airway
 - Position with head of bed elevated

Congenital Anomalies: Cleft Lip and Palate

- Fissure involving nares, nasal septum, or connecting oral and nasal cavity
- Intervention
 - Feedings with special nipples
 - Feed upright and burp frequently
 - Prevent aspiration
 - Clean mouth after feedings

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Congenital Anomalies: Heart Defects

- Signs
 - Cyanosis
 - Heart murmur
 - Heart failure
- Most common defects
 - Patent ductus arteriosus
 - Ventricular septal defect
 - Coarctation of the aorta
 - Hypo plastic left heart
 - Tetra logy of Fallot
 - Transposition of the great vessels

Substance-abusing Mother: Fetal Alcohol Syndrome

- Facial abnormalities
- Behaviors
 - Difficulty establishing respirations
 - Sleeplessness - Jittery
 - Hyperalert states - Hyper reflexes
 - Inconsolable crying - Poor sucking
 - Irritability - Lethargy



Substance-abusing Mother: Fetal Alcohol Syndrome

- Long-term complications
 - Hypotonic and poor coordination
 - Mental retardation or normal intelligence
 - Speech and learning disabilities
 - Hyperactivity and impulsivity
 - Growth retardation
- Intervention
 - Treat respiratory distress
 - Reduce environmental stimulation
 - Extra feeding time

Substance-abusing Mother: Drug Dependence

- Pregnant woman increased risk of
 - Abruptio placenta, abortion, preterm labor, precipitous labor
- Neonate increased risk of
 - Intrauterine asphyxia
 - Respiratory problems
 - Urogenital malformation
 - Cerebrovascular complications
 - Low birth weight and head circumference
 - Drug withdrawal

Substance-abusing Mother: Drug Dependence

- Key assessment findings
 - Tachypnea
 - High-pitched cry
 - Jitteriness
 - Poor sleeping
 - Irritability
 - Interventions
 - Swaddling
 - Frequent feeding
 - Promote bonding
- Sensitive to stimuli
 - Low birth weight
 - Hyperactive Moro reflex
 - Increased reflexes
 - Diarrhea & vomiting
 - Medication

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