

### **Neonatal Sepsis**

- Infection spreads rapidly through blood
- Usually see staph and strep in nursery
  - Strep comes from staff, nurse, mom (somebody has a cold!)
  - Staph comes from the skin (not good handwashing)
- 1 to 5 incidences per 1000 births
- Risk increases in NICU
- High mortality rate

### **Sepsis: Risk Factors**

- Maternal low SES
- Prolonged labor
- Premature labor
- Maternal UTI
- PROM
- Twin gestation
- there are more

### **Sepsis: Signs & Symptoms**

- Apnea, bradycardia
- Tachypnea
- Grunting, nasal flaring
- Retractions
- Decreased O2 saturation
- Sepsis: Signs & Symptoms
- Acidosis
- Decreased cardiac output
- Hypotension
- Decreased perfusion
- there are more

### **Diagnostic Tests for Neonatal Sepsis**

- CBC with diff
- Chest X-ray
- Serology
- Gram stains
- Cultures obtained
  - Blood (2)
  - Spinal fluid
  - Urine
  - Skin
  - Nasopharyngeal, rectal, ear canal & gastric aspirate

### **Neonatal Sepsis: Therapy**

- Instituted before results of workup are obtained
- Two antibiotics, usually ampicillin and gentamicin
- 7 to 14 days
- Goal: maintain resp., hemodynamic, nutritional, & metabolic homeostasis

### **TORCH Infections**

- Toxoplasmosis S&S
  - Convulsions
  - Coma
  - Microcephaly

- Hydrocephalus
- Survivors: blind, deaf, severely retarded
- Rubella
  - Congenital cataracts, sensorineural deafness, congenital heart defects
  - Infectious at birth
  - Isolate
  - Tx: Prevention. Give mom the vaccine as the VERY LAST thing you do. Tell her not to get pregnant for 3 months.
- Cytomegalovirus
  - Infects 0.5-2.5% of newborns
  - 20-30% mortality rate
  - Mental retardation/auditory deficits/learning disabilities
  - Microcephaly, hydrocephaly, CP, mental retardation
  - Neonate typically SGA
  - Blood, brain, liver
- Herpes Simplex
  - Route of birth
  - Lesion present? Then mom has to have C/S
  - Risk of transmission-50% (vaginal, primary lesion present)
  - Recurrent lesion present-risk of transmission 0-3%
  - Preferred delivery: C-section
  - Symptoms develop 2-12 days after birth
    - Fever or hypothermia
    - Jaundice
    - Seizures
    - Poor feeding
    - Lesions
  - Treatment
    - Drugs

### **Infections**

- Gonorrhea
  - Ophthalmia neonatorum
  - Corneal ulcerations/discharge
  - Sepsis:
    - Temp instability
    - Poor feeding
    - Hypotonia
    - Jaundice
  - Erythromycin ointment
- Syphilis: Signs & Symptoms
  - Fissures-mouth
  - Red rash
  - Copper-colored rash
  - Irritability
  - Gen. edema
  - Rhinitis
  - there are more...see slide
- Syphilis: Treatment
  - Isolation
  - Penicillin
- Hepatitis B
  - Perinatal transmission-at or during childbirth
  - Routine vaccination

- Immunoprophylaxis to all newborns with infected mothers
- HIV
  - Vertical transmission: 13-40%
  - Opportunistic diseases
  - Testing infants: HIV DNA PCR-24 hour results
    - Before 48 hours of age
    - 1-2 months and 4-6 months
- HIV: Signs/Symptoms
  - Enlarged spleen/liver
  - Swollen glands
  - Recurrent resp infections
  - Rhinorrhea
  - Interstitial pneumonia
  - there are more
- HIV: Nursing Care
  - Comfort
  - Nutrition
  - Facilitating growth
  - Protect from infections
  - Promote attachment
  - Universal precautions
  - Good skin care

### **Bacterial Infections**

- Group B Strep
- Risk factors:
  - Prematurity
  - Maternal IP fever
  - ROM > 24 hours
  - Previously infected infant
  - GBS bacteriuria in current pregnancy
- Group B Strep
  - Signs/Symptoms
  - Resp distress or pneumonia
  - Apnea
  - Shock
  - Meningitis (late-onset)
  - Long term
    - Neurologic complications
- Group B Strep: Therapy
  - Screening
  - Antibiotic prophylaxis
- Chlamydia Trachomatis
  - Newborn conjunctivitis
  - Pneumonia
  - Erythromycin ointment
- Other Bacterial Infections
  - E. Coli
  - Tuberculosis
    - Active: Infant should not have direct contact with mother
  - Listeriosis
  - Fungal Infections
  - Candidiasis

- May contract thrush, diaper rash
  - A baby that has this will have thrush about 1 week after birth, will have a diaper rash is right around the rectal opening and in the creases.
- 5-7 days after birth
- Nystatin is the best one, gentian violet (mouth) at West Cupcake Community Hospital