Neurological System Outline- Child

I. Reye's Syndrome

- Definition- Metabolic encephalopathy with fatty infiltration of the liver
  - Rare, serious condition causing swelling in liver and brain
  - Theories: Syndrome r/t viral illness, aspirin ingestion, metabolic errors of body?
- Patho-
  - Cause unknown
  - We do know: Liver sustains some type of insult, becomes large/swollen, loses ability to detoxify ammonia.
  - Ammonia accumulates, creates toxicity to body
- Clinical Manifestations
  - Recover from an initial viral illness, then become ill again usual case
  - S/S can progress quick
    - Lethargy, Vomiting, Confusion, Agitation
- Diagnosis
  - Serum ammonia elevation, bleeding times can be prolonged
  - CT Scan
  - Liver biopsy definitive
- Therapeutic Management
  - IVF
  - _____
  - bleeding precautions,
  - _____
  - Symptom support
  - _____
- Prevention- _____

II. Cerebral Palsy

- Definition- Disorder of posture and movement caused by an injury/insult to the developing brain before birth, during birth or after birth.
  - Chronic and permanent. Non-progressive
  - Other issues: disturbances with sensation, perception, communication, cognition, behavior
- Etiology
  - Brain injury, anoxia, asphyxiation, prematurity (#1 risk factor), congenital malformation, maternal/fetal infections, or unknown cause.
- Patho
  - Gross malformation of the brain, otherwise no classic "picture" of patho
- Clinical Manifestations

- _____
- _____
- _____
- _____
- _____
- _____

- Classifications of CP
  - Spastic -
  - Dyskinetic -
  - Ataxic -
  - Mixed -
- Diagnosis
  - Neuro exam, is child meeting milestones?, G&D assessment, H&P
  - MRI
  - Persisting primitive infant reflexes- moro, tonic neck
- Therapeutic Management
  - Primary goal- _____
  - Optimal appearance, motor functions, socialization, and educational opportunities
  - Correction of any defects
  - Assistive devices for locomotion- braces, wheelchairs/scooters, surgery, hand devices
  - Medications to decrease spasticity
    - Baclofen pump, diazepam, botulinum toxin A
- Nursing Management
  - Maintain proper alignment of body, prevent skin breakdown/contractures
  - Give ample rest periods, assist with ADL, transfer safety
  - Nutritional maintenance
  - Support for patient and family
  - Multidisciplinary care- PT/OT/Speech/Case Management

III. Craniosynostosis

- Definition- premature closing of one or more cranial sutures before fusion should occur
  - Rare occurrence, cause unknown
  - Causes abnormal head shape often easily visible
- Clinical Manifestations
  - Skull misshapen, deformity
  - Signs of increased ICP
- Diagnosis
  - Clinical appearance

- Xrays, MRI, CT
- R/O other genetic syndromes

- Therapeutic Management
  - Surgery- to reduce pressure of growing brain in a fused location & to correct deformities
    - Craniotomy-to open the fused sutures up to allow skull to grow with growing brain
  - Nursing Management
    - Support to family as appearance of child could be concerning
    - Post op surgery nursing management
      - Watch for signs of increased ICP
      - Infection/Bleeding
    - Referral to support groups/case management