

Hospitalized Child

- A. Injection
 - a. "Painful"
 - I. NSG
 - A. Topical Anesthetic
 - a. Lidocaine based - "Emla"
 - b. Let it stay a while - Before any invasive procedure (Certain)
 - I. IE
 - A. Led poisoning

Infections

- increase WBC - Presence of Micro organism
- Irritability, Fever
- Pain, Red (Erythema) , Swelling

Inflamations

- No presence of micro organism
- Swelling, Redness (surface of the skin), Pain, Warmness

Review

- Organ compose - Lower
- Organ compose - Upper

Medications

- For Bronchiolitis
- What age do they give - What kind

Test

- Sickle Cell
- Congenital Anomalies
- Separations Anxiety
- Hospitalized Child
- Different Pain scale
- Age Associated

Congenital Anomalies

- a. Associated with respiratory -
 1. Life threatening anomalies of the esophagus
 2. Can occur together but not necessarily
 - A. "Esophageal Atresia"
 - a. Blind pouch / Narrowing - at the end of the esophagus
 - b. S/SX
 1. Unable to get food through
 2. Little food gets through - Risk for occlusion
 3. Respiratory difficulty
 4. Excessive drooling
 5. Feeding intolerance
 - B. "Esophageal Tracheal Fistula" - TEF
 - a. Hole - Connects Esophagus - Trachea
 - b. NSG
 1. No Feeding - Will kill baby
 - c. S/SX
 1. 3 "C"
 - A. Choking
 - B. Coughing
 - C. Cyanosis
 3. Intervention
 - A. If drooling / Cyanosis / Respiratory difficulty
 - a. NSG
 1. Evaluate
 - A. Before child goes home
 2. Call DR right away
 3. No Food by mouth
 4. Maintain
 - A. Fluid
 - B. Respiratory
 4. NSG
 - A. Priority
 - a. Respiratory
 1. Maintain good respiratory
 - B. Early intervention - Great prognosis
 - C. Maintain IV
 - D. Post-Op
 - a. Electrolyte imbalance
 1. Fluid intake maintained
 - E. Early Feeding
 - a. To check if baby has anomalies
 5. TX
 - A. Surgery - Fix the anomalies
 - a. Cut the part - Anastomosis
 - b. Blind pouch
 1. Cut through and make connection with stomach

Muscular Skeletal

A. Hip Dysplasia

- a. Birth - 6 Months
- b. Abnormal developmental dysplasia of the hip
- c. Abnormal development of one or all of the component of the hip joint
 1. Causes instability of the hip
- d. S/SX
 1. Ortolany click
- e. TX
 1. Double Diaper / Thick Diaper
 - A. Before discharge
 - B. Done First to push femur in a right angle and into the acetabum
 2. Padvic Harness
 - A. Birth - 6 Months (Once discharge)
 - B. Keeps the knee flex and abducted
 - C. Pushes the head of the femur into the acetabum
 3. Traction
 - A. 6-18 months
 - B. Type
 - a. Brians Traction
 1. " Skin Traction "
 2. Both of the leg in the baby is extended - Up in the air - (Counter Traction)
 3. Keeps the hip 90 degree angle from the body
 4. NSG
 - A. Buttocks will not touch the bed - If touch - Traction off
 - B. Ropes on the pulley
 - C. Weights are free
 - D. Nurse should be able to place hand under babies buttocks
 4. Spica Cast
 - A. One or more extremities is in a cast
 - B. Looks like a pants
 - C. NSG
 - a. Plastic Cast
 1. Hold in the palm of your hands - "Do not indent"
 - b. Extremities
 1. Check all extremities for any swelling or discolorations
 2. Should be able to put your fingers in the toes area
 3. Baby should be able to wiggle toes
 4. Check for sensation
 - A. Pinch toes to see if it moves
 - c. Toys
 1. No toy should be given to a child that he may put inside the cast
 - A. Rational
 - a. Child may use toy to shove it down the cast - INFECTIONS
 - d. Itchy / Irritations / Discomfort
 1. Use hairdryer - Soothing
 2. Genitals
 - A. Peddling - around the cast
 - a. So no irritation on the edges of the cast
- D. Treatment
 - a. Early as possible
 1. Child may try to walk - Increase likely of major injury

Genital Anomalies

A. 2 Type

a. Hypospadias

1. Opening in the under side of the penis
2. Common conditions
3. S/SX - Physiologic
 - A. Traumatic - For a little boy
 - a. They have to sit down like a girl
 - B. May cause Infertility -
4. TX
 - A. Surgical

b. Epispadias

1. Urethra on the top of the penis (Dorsal surface)
2. Rare conditions
3. "Exposure of the bladder" - Goes hand in hand
 - A. Goes in conjunction with Epispadias
 - B. S/SX - Physiologic
 - a. Abnormal development of the bladder , abdominal wall and symphysis pubis
 - b. Bladder expose - Visible - Supra pubic area
 - I. Red mass
 - C. TX
 - a. Re-constructive surgery

Respiratory Diseases

Common diseases of small children

- a. High rate - Emergency room

NSG

- a. Educations
 1. Parent - Teaching
 - A. Thermometer -
 - B. Entire course of Medications
 - a. 10 days - should be given 10 days
 - C. Appointment
 - a. Compliant with appointment - All vaccines

Tonsillitis

- a. Type
 1. Adenoids
 2. Palatine
 - A. Common place for infections
- b. S/SX
 1. Leukocytosis , Fever, Pain, Swelling
 2. Irritable, Lethargic
 3. Bad breath
 4. Peri tonsillar abscess
- c. NSG
 1. Asses - Infection Process
 - A. Fever , Redness, Pain, Swelling
 - B. Swallowing ? "Can't swallow"
 - a. Drooling
 - b. Sore Throat
 - C. Bacteria (3+)
 - D. Virus (3 - Under)
- d. TX
 1. Tylenol
 - A. Anti pyretic
 - B. Pain management
 2. NO Aspirin
 3. Antibiotic
 - A. Education
 - a. if 10 days - Give full 10 days
 4. Bed rest - Stay at home
 5. Post-op - **Tonsillectomy**
 - A. They will remove Palatine
 - B. Risk
 - a. **Hemorrhage**
 1. S/SX
 - A. Constantly swallows
 2. NSG
 - A. No red drink
 - a. Rational
 1. If they vomit - Know if they are bleeding
 - B. Check back of neck - Wetness
 - a. Drooling - Blood will pool behind the neck

Bronchiolitis / RSV

- a. Disease of the lower respiratory tract
 - 1. Inflammations of the Fine bronchi - Small bronchi
- b. Physiological
 - 1. Age
 - A. Small children - age
 - 2. Predisposes child to Asthma
 - 3. Dominant in May
 - 4. Virus - Causes
 - A. AdinoVirus
 - B. Para influenza Virus
 - C. RSV - Respiratory Syncytial Virus
- c. S/SX
 - 1. Respiratory Symptoms
 - A. Last 2-3 days
 - B. Nasal Flaring
 - C. Inter-coastal - Sub-coastal Retractions
 - a. Tachypnea
 - D. Hypoxia can Occur
 - a. (Blocking of the bronchi - leads to alveoli)
 - E. Cyanosis
 - 2. Low Grade Fever
 - 3. Leukocytosis
 - A. Leukocyte Segmentations Rate
 - 4. Tachycardia - Pulse increase
 - 5. Appetite Poor
 - 6. Lethargic - Look Sick
- d. Aq
- e. Lab / Diagnostic
 - 1. Cultured
- f. NSG
 - 1. Contact precautions
 - A. Contact Isolations - Secretions
 - 2. Medications
 - A. Anti pyretic
 - B. Synergist
 - a. Given - IM for children that are compromised
 - 3. Tachypnea
 - A. NSG
 - a. Make sure children are well hydrated
 - b. IV
 - 4. Monitor
 - A. Because children can not tell you what is wrong
 - 5. Nebulizer
 - A. Steroid
 - 6. Position
 - A. Semi-Fowler
 - 7. Teaching
 - A. Parent - Teaching
 - a. Support parents - Room-in
 - b. Proper hand washing
 - 8. O2 saturations (Might be low)
 - 9. Croat Tent
 - A. Humidified - Oxygen (Designed like a tent)

Epiglottitis

A. Physiological

- a. Disease of young children (3 - 7)
- b. Infections in the epiglottis
- c. Life threatening - Emergency *SERIOUS*
 - I. Might be well in the morning - Sudden decrease in well-being
 - A. Sudden onset of S/SX
- d. Cherry looking - Epiglottis
- e. They assume - Tripod Position
 - I. Tripod - Frog - Position
- f. S/SX
 1. Hoarseness
 2. Difficulty swallowing / speaking
 3. Swelling

B. Causes

- a. Staph
- b. Strep
- c. Hemophilus Influenzae

C. NSG

- a. Trachea Set at hand - Bedside
 - I. IMPORTANT
- b. Specialized Health care should be the one who assess the throat
 1. RN should not assess
 2. Anesthesiologist / DR
- c. Cause by Bacteria - Emergency TX
- d. Support
 - I. Sudden onset may assume parental fault (Emotional for parents)
- e. Antibiotic
- f. Treatment - Immediately
 - I. If done quickly - will go away in a few days

D. Diagnostic

- a. Xray

Croup Disease

- a. Different type of Croup

Bronchio Asthma

A. Physiological

- a. Lower Respiratory Tract Disorder
 1. Characterized by Broncho Spasm
 2. Inflammation of Broncho mucosa
 3. Increase Mucus productions
 - A. *Decreases the size of the airway opening* - "Broncho Constrictions"
 - a. Cause by Spasm, Mucus (Increase productions and Inflammations)

B. S/SX

- a. Respiratory Distress
 1. Due to Broncho Constrictions
- b. Bronchio spasm
- c. Wheezing on expirations
 1. Loud - Audible
- d. Mucus productions - Increase
 1. Thick, viscous
- e. O₂ stat - Decreases
- f. Restless , apprehensive
- g. Hacking cough - Non productive
- h. Flaring of Nares
- i. Circumolar cyanosis
 1. Cyanosis in the mouth

C. Precipitated - Causes

- a. Allergens
 1. Animal dander, Pollens
- b. Infestations
 1. Bed bugs, roaches
- c. Pollutants
 1. Smoke, Spray
- d. Exercise
- e. Temperature changes
- f. Food
- g. Upper Respiratory infections
- h. Emotional Stress

D. NSG

- a. Remove Allergens / or causes that precipitate an attack
 1. Remove rugs
 2. Remove Pets
- b. D/X
 1. Hyper resonance - Lungs
 - A. Hallow sounds on percussion
- c. Minimize Symptoms
 1. Have them drink - If not
 - A. Start an IV
- d. Unless severe - Remain Outpatient basis
- e. Drugs
 1. Corticosteroid
 2. Broncho dilators
- f. ** Spacer **
 1. Allows the child to breath the nebulizer alot easier

Status Asthmaticus

A. Physiological

- a. Medical Emergency - SERIOUS
- b. Child does not respond to treatment
- c. Continued attacks
 1. Dies if attack is not reduced
- d. Even with Upper respiratory infections - causing the asthma
 1. It's still Asthma

B. NSG

- a. Diligent and rapid treatment - Due to seriousness (Death may occur)
- b. Care plan -
 1. Individualized to child
 2. Goals are measurable
 3. Small children its important to have family in that plan of care

Cystic Fibrosis

A. Physiological

- a. Respiratory Disease
- b. Multi system disorder of the exocrine glands
 1. Mucus producing gland - found especially in the lungs and pancreas
- c. Inheritance - Autosomal recessive trait
 1. occurs more frequently in caucasians
- d. Organ Involvement
 1. Pancreas
 - A. Enzyme that flow from pancreas that digest fats, protein, carbs
 - B. Attack - Causes
 - a. Enzyme can't flow to duodenum because of thickness of the mucus
 - b. Causes - Impaired nutrition absorptions
 - c. S/SX
 1. Steatorrhea-
 - A. Large , Bulky, Greasy Stools , Foul Odor
 - B. Causes Big belly
 - C. NSG
 - a. Fat soluble vitamin - Given in water base
 2. Meconium Ileus
 - A. Newborn
 2. Lungs
 - A. S/SX
 - a. Pockets of infections in the bronchio tree
 - b. Pool of Thick secretions in the bronchio tree - Obstruct bronchio
 - c. Frequent Respiratory Infections
 3. Sweat Glands
 - A. S/SX
 - a. Change in electrolyte of the sweats in the sweats gland
 1. Baby will taste salty - Perspirations

B. D/X, Lab

- a. Pancreas
 1. Stool analysis for fat content
 - A. Analysis of duodenal secretions
- b. Lung
 1. Lung analysis - Presence of emphysema , analectesis
- c. Sweat Gland
 1. Sweat testing - Normal concentrations of sweat
 - a. 20 mEq / Liter (60 mEq / Liter - Considered Cystic Fibrosis)

C. NSG

- a. Diet
 1. High Caloric , Fat (Low-Moderate)
 2. Fat soluble Vitamins - Water miscible form
 3. Extra Salt - (Hot months)
 4. Pancreatic enzyme - Before Each Meal or Snack (Because of thick Mucus)
- b. Fluid
 1. Offer fluid - Hydrate
 - A. Because of thick mucus
- c. Environment - Must be kept in cool Environment
- d. Rest
 1. Adequate rest
 2. Oxygen
- e. Chest PT - "Broncho dilator given before Chest PT (Percussion)
- f. Oral Hygiene
- g. Rivadirin

Pneumonia

- a. Viral
 - I. Under 5 years old
- b. Bacterial
 - I. Over 5 years old

NSG

- a. Hospitalized - If they have any predisposing symptoms/syndrome
- b. Home - Treatment