

PEDIATRIC CLERKSHIP STUDENT MANUAL

BLOCK III

2009-2010

Pediatrics is an eight-week clerkship. It consists of inpatient pediatrics, ambulatory pediatrics, newborn nursery, exposure to community agencies involved in the care of children, and didactic sessions, reading, and exercises covering core topics and skills in pediatrics. The prerequisite for all students who take the Pediatric Clerkship will be successful completion of Block I, Block II and Block III Program Orientation. Students shall also have successfully completed Part 1 of the USMLE. The Goals & Objectives of Pediatric Clerkship at College of Human Medicine are derived from the 2005 revision of APA/COMSEP general pediatric clerkship curriculum [APA: Ambulatory Pediatric Association; COMSEP: Council on Medical Student Education in Pediatrics].

GOALS OF THE PEDIATRIC CLERKSHIP

- Acquisition of basic knowledge of growth and development (physical, physiologic and psychosocial) and of its clinical application from birth through adolescence.
- Acquisition of the knowledge necessary for the diagnosis and initial management of common pediatric acute and chronic illnesses.
- An understanding of the approach of pediatrician to the health care of children and adolescents.
- An understanding of the influence of family, community and society on the child in health and disease.
- Development of communication skills that will facilitate the clinical interaction with children, adolescents and their families and thus ensure that complete, accurate data are obtained.
- Development of competency in the physical examination of infants, children and adolescents.
- Development of clinical problem-solving skills.
- Development of strategies for health promotion as well as disease and injury prevention.
- Development of the attitudes and professional behaviors appropriate for clinical practice.

Definition of terms used in the document:

Rationale: This section outlines the reasons that a specific topic or clinical issue is included in the curriculum.

Prerequisites: Knowledge of the material in this section is assumed. A student should have acquired the knowledge and developed the skills and attitudes listed in this section before the beginning of the pediatric clerkship

Competencies: The knowledge, skills, or attitudes that students should be able to demonstrate.

Universal (U): a skill, attitude, or behavior not specific to pediatrics that is essential to all aspects of clinical medicine

Core Pediatric (CP): a skill, attitude, or behavior specific to pediatrics and expected of students by the end of the clerkship experience

Mastery (M): a skill, attitude, or behavior specific to pediatrics that is expected of students with advanced training in pediatrics not necessarily during the clerkship experience.

Processes: the types of patients, real or simulated, that a student should see during the clerkship experience

Core Text

Students may choose either of the suggested texts below, both of which are appropriate for use during an eight week clerkship. However, the reference text below is the definitive source for content on the pediatric oral examination.

SUGGESTED TEXTS:

Nelson Essentials of Pediatrics, 5th Edition – with Student Consult Online Access. By Robert M. Kliegman, MD, Karen Marcidante, MD, Hal B. Jenson, MD, and Richard E. Behrman, MD, Copyright 2006, Elsevier/Saunders ISBN: 978-1-4160-0159-1

REFERENCE TEXT: Nelson Textbook of Pediatrics e-dition, 18th Edition: text with continually updated online reference. By Richard E. Behrman, MD; Robert M. Kliegman, MD, Hal B. Jenson, MD, and Bonita F. Stanton, MD, Copyright 2007, Elsevier Mosby/Saunders ISBN: 978-1-4160-2450-7

ADDITIONAL LEARNING RESOURCES

I. Growth & Development and Well-Child Care

Stellwagon L, Boies E. Care of the Well Newborn. *Pediatr. Rev.*, Mar 2006; 27: 89-98.

Rose SR, Vogiatzi MG, Copeland KC, A General Pediatric Approach to Evaluating a Short Child. *Pediatr. Rev.*, Nov 2005; 26: 410-420.

II. Fluids, Electrolytes, Acid/Base and Nutrition

Roberts KB. Fluid and Electrolytes: Parenteral Fluid Therapy. *Pediatr. Rev.*, Nov 2001; 22: 380-387.

Hall RT, Carroll RE. Infant Feeding. *Pediatr. Rev.*, Jun 2000; 21: 191-200.

McKiernan CA, Lieberman SA. Circulatory Shock in Children: An Overview. *Pediatr. Rev.*, Dec 2005; 26: 451-460.

Schwaderer, Andrew L, Schwartz, George J. Acidosis and Alkalosis. *Pediatrics in Review*. 2004; 25: 350-356.

III. Infectious Disease

Jaggi P, Shulman ST. Group A Streptococcal Infections. *Pediatr. Rev.*, Mar 2006; 27: 99-105.

Siegel RM, Bien JP. Acute Otitis Media in Children: A Continuing Story. *Pediatr. Rev.*, Jun 2004; 25: 187-193.

McCarthy CA, Hall CB. Respiratory Syncytial Virus: Concerns and Control. *Pediatr. Rev.*, Sep 2003; 24: 301-309.

Nash D, Wald E. Sinusitis. *Pediatr. Rev.*, Apr 2001; 22: 111-117.

Raszka WV Jr., Khan O. Pyelonephritis. *Pediatr. Rev.*, Oct 2005; 26: 364-370.

Pantell, Robert H. Newman, Thomas B. Bernzweig, Jane Bergman, David A. Takayama, John I, Segal, Mark, Finch, Stacia A, Wasserman, Richard C. Management and Outcomes of Care of Fever in Early Infancy. *JAMA*. 2004; 291: 1203-1212.

IV. Endocrinology: Diabetes Mellitus

Kaufman, Francine Ratner. Type I Diabetes Mellitus. *Pediatrics in Review*. 2003; 24: 291-299.

Nesmith, J. Darrell. Type 2 Diabetes Mellitus in Children and Adolescents. *Pediatrics in Review*. 2001; 22: 147-152.

V. Autoimmune Disease

Goldmuntz EA, White PH. Juvenile Idiopathic Arthritis: A Review for the Pediatrician. *Pediatr. Rev.*, Apr 2006; 27: e24-e32.

Gottlieb BS, Ilowite NT. Systemic Lupus Erythematosus in Children and Adolescents. *Pediatr. Rev.*, Sep 2006; 27: 323-330.

VI. Cardiology

Batra AS, Hohn Ar. Consultation with the Specialist: Palpitations, Syncope, and Sudden Cardiac Death in Children: Who's at Risk? *Pediatr. Rev.*, Aug 2003; 24: 269-275.

VII. Adolescent Issues

Fisher M. Treatment of Eating Disorders in Children, Adolescents, and Young Adults. *Pediatr. Rev.*, Jan 2006; 27:5-16.

VIII. Hematology

Wethers, Doris L. Sickle Cell Disease in Childhood: Part I Laboratory Diagnosis, Pathophysiology and Health Maintenance. *American Family Physician*. 2000; 62: 1013-20.

Wethers, Doris L. Sickle Cell Disease in Childhood: Part II Diagnosis and Treatment of Major Complications and Recent Advances in Treatment. *American Family Physician*. 2000; 62: 1309-14.

Richardson, Matthew. Microcytic Anemia. *Pediatrics in Review*. 2007; 28: 5-14.

IX. Neonatology

AAP Subcommittee on Hyperbilirubinemia. Clinical Practice Guideline: Management of Hyperbilirubinemia in the Newborn Infant 35 or More Weeks of Gestational Age. *Pediatrics*. 2004; 114: 297-316

Aly H. Respiratory Disorders in the Newborn: Identification and Diagnosis. *Pediatr. Rev.*, Jun 2004; 25: 201-208

Maisels, Jeffrey M. Neonatal Jaundice. *Pediatrics in Review*. 2006; 27: 443-453.

X. Pharmacokinetics

Tetelbaum, Marie, Finkelstein, Yaron, Nava-Ocampo, Alejandro A., Koren, Gideon. Understanding Drugs in Children: Pharmacokinetic Maturation. *Pediatrics in Review*. 2005; 26: 315-321.

XI. General Pediatrics

Sirotnak AP, Grigsby T, Krugman RD. Physical Abuse of Children. *Pediatr. Rev.*, Aug 2004: 25: 264-277.

Cahill L, Sherman P. Child Abuse and Domestic Violence. *Pediatr. Rev.*, Sep 2006; 27:339-345.

Johnson, CF. "Sexual Abuse in Children." *Pediatrics in Review*, 2006; 27:17-27.

Websites for Pediatrics

www.aap.org (American Academy of Pediatrics website – has the practice parameters and much more helpful info)

<http://www.aap.org/otitismedia/www/> - otitis media

www.cdc.gov/nip - website for immunization information

www.hawaii.edu/medicine/pediatrics/welcome.html - great website with many case studies designed for medical students

www.cincinnatichildrens.org/evidence - evidence based medicine guidelines. You can also view their grand rounds.

www.IDSociety.org – physicians use this website for up-to-date infectious disease guidelines

www.cdc.gov/travel/yb/index.htm - website for international travel; updated every year; helpful if you have patients who have traveled to areas that may have endemic diseases

www.guidelines.gov – for additional topics.

www.dermatlas.org – good dermatology pictures for review.

www.ECBT.org – website for vaccine information

www.boosterseat.go – website to learn about car seats

<http://sprojects.mmi.mcgill.ca/lumbar/Movie%20clips/floor%20lumbar.mov> – website on spinal tap (LP)

<http://content.nejm.org/misc/videos.shtml>

<http://newborns.stanford.edu>

<http://www.generalpediatrics.com>

LEARNING OBJECTIVES FOR PEDIATRIC CLERKSHIP

For an unabridged version of this document, visit the Pediatric Clerkship Website (www.phd.msu.edu/Education/PediatricClerkship or contact the Community Clerkship Director)

I. PROFESSIONAL CONDUCT AND ATTITUDES

For Rationale, Pre-requisites, and Competencies See Web

II. SKILLS

For Rationale, Prerequisites, and General Competencies (all skills are CP unless specifically designated U or M)

See Web

1. Demonstrate sensitivity to confidentiality, privacy, and modesty, during the medical interview and physical examination (U) (see professionalism)
2. Demonstrate an ability to perform an age-appropriate history and physical examination in children of all ages (CP)

Specific Skills

A. Interviewing Skills

1. Demonstrate an ability to obtain the following information in an age-appropriate and sensitive manner from a child and or the accompanying adult: (CP)

History of the Major Active Problem (U)

1. Presenting problem
2. Describe onset of the symptom or problem, and give chronological account of events since that time
3. Complete description of each symptom (PPQRST)
4. Pertinent positives or negatives related to diagnostic hypotheses and/or ROS.
5. If a chronic problem, is this episode any different?
6. System review of affected area
7. Fluid intake-output: Fever, vomiting, diarrhea
8. Summarize data. Open ended questions, "Is there anything else?"
9. Concern of parent or child regarding illness or effect of illness on family
10. If patient has specific concern – inquire regarding basis of the concern.

Transition Statement to Past Medical History

Past Medical History (U)

1. Other medical problems in the past: Time-line developed in complex cases. Problem, treatment, resolution.
2. Childhood illness
3. Allergies: Pollen, drugs, food. What happened? Treatment and resolution
4. Accidents or injuries
5. Hospitalizations, Reaction of parent and child to these events
6. Surgical procedures, Reaction of parent and child to these events
7. Medications – including vitamins

Transition Statement to Pregnancy

Pregnancy (CP)

1. Was this pregnancy planned and was it desired?
2. Prenatal care: When first seen, frequency of visits during pregnancy.
3. Affect of pregnancy upon the mother and family.
4. Any physical problems during pregnancy (detailed in children under 2 ½ years).
 - any accidents or injuries during pregnancy
 - drugs taken during pregnancy
 - total weight gain
 - any exposure to infectious diseases
 - high blood pressure
 - bleeding
 - rashes
 - fever
 - x-rays
5. Labor: duration, complications, and anesthesia.
6. Delivery: vaginal, cesarean section.
7. Gestational age and birth weight.
8. Neonatal period: concerns, special care, when baby went home.
9. Bonding interaction with infant.
10. Adjustment to newborn for family (parents and siblings).

Transition Statement to Health Maintenance

Health Maintenance (CP)

1. Source of Primary Care Provider
2. Immunization (including tuberculin tests). Ask mother to bring in record.
3. Age appropriate nutritional assessment.
 - quantity
 - quality
 - milk intake
 - infant: breast or bottle
4. Age appropriate safety measures (car seat, seat belts, diet, exercise, sleep, guns, smoking, smoke detectors, water temperature, sexual activity, and alcohol).

Transition Statement to Growth and Development

Growth and Development (CP)

1. Here and now development, i.e., school progress, sports, games, few landmarks in early development (more detailed early development for young child).
2. Any concerns about either growth or development? If yes, details of early development.
3. Behavioral problems, habits (e.g., temper tantrums, thumb sucking).
4. Description of child, e.g., "How would you describe Johnny?"
5. Relationship of child to other parent, siblings and other children.
6. Discipline: How parents, play activities, exercise, television viewing.
7. Bowel and bladder training if appropriate for age of child.
8. Adolescents:
 - H-Home environment, perception of their health, menstrual history.
 - E-Education & goals
 - A-Activities: school, community, church.
 - D-Drugs, alcohol, cigarettes.
 - S-Sexuality.

Transition Statement to Family History

Family History (U)

1. Mother's age and health (family planning or birth control included here).
2. Father's age and health.

3. Sibling's ages and health.
4. Maternal grandparents.
5. Paternal grandparents.
6. Risk diseases in family:

| | | |
|----------------------|------------|------------------|
| < Allergies | < Cancer | < Heart disease |
| < Asthma | < Diabetes | < Hypertension |
| < Birth defects | < Epilepsy | < Mental Illness |
| < Bleeding disorders | < HIV | < Tuberculosis |

Transition Statement to Social History and Patient Profile

Social History and Patient Profile (CP)

1. Married, single, divorced, widowed: Family support system.
2. Employment.
3. Housing and sleeping arrangements.
4. Finances, i.e., adequate to meet family needs and medical care.
5. Medical insurance.
6. Religious, cultural, language and other belief systems.
7. Alcohol and/or drug abuse
8. Domestic Violence (Be attentive to confidentiality)
9. Family experience with health providers and hospitals

Transition Statement to Review of Systems

Review of Systems (CP)

1. Skin: rashes, hives, bruises, changes in texture or color, itching.
2. Eyes: eye infections, drainage, redness, eyes more together, excessive tearing, eye examinations.
3. Ears, Nose, Throat: ear infection, drainage, hearing problems, hearing tests, nose bleeds, nasal discharge, frequent colds, sore throat, streptococcal infections.
4. Lymphatic: lumps in neck, "swollen glands".
5. Dental: eruption of teeth, bleeding gums, carries preventative care.
6. Cardiac: murmurs, chest pain, blueness of lips or fingernails, activity level, tires easily.
Respiratory: cough, wheezing, chest pain, blueness of lips or fingernails, activity level, tires easily.
7. Gastrointestinal: vomiting, diarrhea, constipation, pain, jaundice, bowel training.
8. Genitourinary: pain, frequency, burning, blood, good stream, bladder training, bed-wetting.
9. Central Nervous System: headache, dizziness, weakness, tingling, numbness, seizures or convulsions, problems with coordination.
10. Musculo-skeletal: pain in bones or joints, redness, swelling, limitation of movement, muscle cramping.
11. Endocrine: growth pattern, excessive thirst, unusual weight gain or weight loss, unusual sensitivity to heat or cold.
12. General: weakness, fatigue, fever, milestones.
13. Immunologic/Infectious: frequent infections, frequent fevers, antibiotic use.

"Is there anything else you would like to discuss or any questions regarding other concerns you may have?"

B. Physical Examination Skills - (The following constitutes a complete physical exam).

1. Demonstrate the role of patient observation in determining the nature of a child's illness and developmental stage (CP)
2. Conduct a pediatric physical examination appropriate to the nature of the visit or complaint (complete vs. focused) (U) and the age of the patient (CP)
3. Demonstrate an ability to perform the following examination skills (CP)

Appearance

- Interpret the general appearance of the child, including size, morphologic features, development, behaviors and interaction of the child with the parent and examiner.
- Identify signs of acute and chronic illness in a neonate, infant, toddler; school aged child, and adolescents as evidenced by skin color, respiration, hydration, mental status, cry and social interaction.

Vital signs

- Measure vital signs, demonstrating knowledge of the appropriate blood pressure cuff size and normal variation in temperature depending on the route of measurement (oral, rectal, auxiliary or tympanic).
- Identify variations in vital signs based on age of the patient, the presence or absence of disease, and testing modalities (e.g. blood pressure cuff size).

Growth (See section on Growth)

- Accurately graph and interpret height (length), weight, and head circumference; Calculate, plot, and interpret BMI percentiles. (U); Describe the usefulness of longitudinal data in assessing growth.

Development (See section on Development)

- Accurately identify and interpret major developmental milestones of the neonate, infant, toddler, school-aged child, and adolescent.

HEENT

- Observe, measure, and describe head size and shape, symmetry, facial features, and ear position as part of the examination for dysmorphic features
- Identify sutures and fontanels in neonates and interpret the findings.
- Identify the red reflex and discuss how it is used to detect corneal opacities and intraocular masses.
- Detect the corneal light reflection and discuss how it is used to identify strabismus
- Describe reactivity of pupils; describe extraocular movements; attempt/perform fundoscopic exam when age appropriate
- Assess hydration of the mucous membranes.
- Assess dentition (U)
- Observe the tympanic membrane using an otoscope and an insufflator
- Identify the structures of the oropharynx (e.g. uvula, tonsils, palate, tongue) and recognize signs of pathology (U)

Neck

- Palpate lymph nodes and describe what anatomic areas they drain (U)
- Demonstrate maneuvers that test for nuchal rigidity
- Palpate the thyroid and any neck masses (U)

Chest

- Observe, measure and interpret the rate, pattern and effort of breathing (U)
- Identify normal variations of respiration and signs of respiratory distress e.g. grunting, flaring, and retraction (U)
- Identify normal breath sounds and findings consistent with respiratory pathology such as stridor, wheezing, crackles and asymmetric breath sounds (U)
- Identify transmitted upper airway sounds (U)
- Observe and describe breast tissue according to developmental stage (e.g. Tanner scale) (CP) and palpate breast tissue (M)

Cardiovascular

- Identify the pulses in the upper and lower extremities through palpation.
- Observe and palpate precordial activity (U).
- Describe cardiac rhythm, rate, and quality (such as intensity, pitch, and location) of the heart sounds and murmurs and variation with maneuvers through auscultation. (U)
- Assess peripheral perfusion, using a test for capillary refill. (U)
- Identify central versus peripheral cyanosis

Abdomen

- Palpate the liver, spleen and kidneys, and interpret the finding based on the age of the patient.
- Assess the abdomen for distention, tenderness, and masses through observation, auscultation, and palpation (U)
- Determine the need for a rectal examination, (CP) and demonstrate the age-appropriate technique (M).

Genitalia

- Describe the difference in appearance of male and female genitalia at different ages and developmental (e.g. Tanner) stages.
- Palpate the testes (CP) and identify genital abnormalities in males, including cryptorchidism (CP), hypospadias, phimosis, hernia, hydrocele and testicular mass (M).
- Recognize genital abnormalities in females including signs of virilization (CP) imperforate hymen, labial adhesions and signs of injury.(M)

Extremities

- Examine the hips of a newborn for developmental dysplasia of the hip using the Ortolani and Barlow maneuvers
- Observe and describe the gait of children at different ages.
- Identify age-related variations in the examination of the extremities, such as tibial torsion, genu valgus, flat feet, etc. (M)
- Recognize pathology, such as joint effusions, signs of trauma, and inflammation(CP) and restricted or excessive joint mobility (M)

Back

- Perform and interpret a screening test for scoliosis.
- Examine the back for midline tufts of hair, pits, sacral dimples, or masses.

Neurologic Examination

- Elicit the primitive reflexes that are present at birth and describe how they change as the child develops.
- Assess the quality and symmetry of tone, strength and reflexes, using age-appropriate techniques. (M)
- Assess the major developmental milestones of newborns, infants, toddlers, school aged, children, and adolescents.
- Assess cranial nerves and fundoscopic when age appropriate.
- Assess cerebellar functions using age appropriate techniques.

Skin

- Describe and assess turgor, perfusion, color, hypo and hyperpigmented lesions, and rashes through observation and palpation (U)
- Identify jaundice, petechiae, purpura, bruising, vesicles, and urticaria. (U)
- For additional information on Physical Examination, please refer to physical diagnosis manual such as Bates).

C. Patient Communication Skills

1. Conduct an effective interview by adapting the interview to the visit (e.g., first visit, acute care, health supervision), or chief complaint, (U)
2. Demonstrate effective verbal and non-verbal communications skills with children and their parents or families that include:
 - Establishment of rapport taking into account the patient's age and development stage (CP)
 - Use of communication techniques that enable development of a therapeutic alliance being sensitive to the unique social condition and cultural background of the family (U)
 - Identification of the primary concerns of the patient and/or family (U).
 - Discussion of medical information in terms understandable to patients and families avoidance of medical jargon (U)
3. Correctly identify the need for an interpreter in specific patient-physician interactions. (U)
4. Effectively communicate information about the diagnosis, diagnostic plan, and treatment to the patient and family and assess the patient and families understanding (M).
5. Describe the important role of patient education in treatment of acute and chronic illness, and prevention of disease. (M)
6. Observe and reflect on the communication of "bad news" to parents, children and adolescents. (M)

D. Peer Communication Skills

1. Demonstrate effective oral and written communication with the health care team avoiding jargon and vague terms (e.g. clear and normal). (U).
2. Present a complete, well-organized verbal summary of the patient's history and physical examination findings, including an assessment and plan modifying the presentation to fit the time constraints and educational goals of the situation. U

3. Document the history, physical examination, and assessment and plan using a format appropriate to the clinical situation (e.g., inpatient admission, progress note, office or clinic visit, acute illness, health supervision visit, and interval care visits). (U)
4. Write admission and daily orders for a hospitalized patient (U)
5. Write a prescription (see Therapeutics section) (U) specific for a child's weight (CP)

E. Problem Solving Skills

1. Demonstrate an ability to generate an age-appropriate differential diagnosis and problem list based on the interview and physical examination. (CP)
2. Outline a diagnostic plan based on the differential diagnosis, and justify the diagnostic tests and procedures taking into account the test's sensitivity, specificity, and predictive value, as well as its invasiveness, risks, benefits, limitations, and costs. (MU)
3. Interpret the results of diagnostic tests or procedures, recognizing the age-appropriate values for commonly used laboratory tests, such as the CBC, urinalysis, and serum electrolytes. (M)
4. Formulate a therapeutic plan appropriate to the working diagnosis (MU)
5. Formulate an educational plan to inform the health care team and family of your thought process and decisions. (MU)
6. Search for relevant information using electronic (or other) data bases and critically appraise the information obtained to make evidence based decisions. (U)

III. HEALTH SUPERVISION

For Rationale, Prerequisites, and Competencies See Web

Processes:

All students should see during the course of the Pediatric Clerkship should see an infant, toddler, school aged, and adolescent child for a health care supervision visit.

IV. GROWTH

For Rationale, Prerequisites, and Competencies See Web

Processes:

All students on the Pediatric Clerkship should see a patient or patients with real or possible (e. g. parental concern) issues related to growth (e.g. failure to thrive, obesity, short stature, macrocephaly, microcephaly, constitutional delay, small for gestation age). This can be in the context of a well child examination or a child with a known disorder.

V. DEVELOPMENT

For Rationale, Prerequisites, and Competencies See Web

Processes:

All students on the Pediatric Clerkship should see a patient or patients with real or possible (e.g. parental concerns) issues related to development (e.g. delayed or possibly delayed language, motor, fine motor, or social adaptive skills)

VI. BEHAVIOR

For Rationale, Prerequisites, and Competencies See Web

Processes:

All students on the Pediatric Clerkship should see a patient or patients with an individual or parental concern over a specified behavior or group of behaviors (e.g. sleep problems, colic, temper tantrums, toilet training, feeding problems, enuresis, attention deficit, encopresis, autism, eating disorders, conduct disorders, head banging, poor school performance).

VII. NUTRITION

For Rationale, Prerequisites, and Competencies See Web

Processes:

All students on the Pediatric Clerkship should see a patient or patients with self or parental concerns or questions about appropriate nutrition (e.g. failure to thrive, questions about breast vs. bottle feeding, questions about switching to formula, when to add solids). This can be in the context of a routine health care supervision visit.

VIII. PREVENTION

For Rationale, Prerequisites, and Competencies See Web

IX. ISSUES UNIQUE TO ADOLESCENCE

For Rationale, Prerequisites, and Competencies See Web

Processes:

All students on the Pediatric Clerkship should see an adolescent patient or patients.

X. ISSUES UNIQUE TO THE NEWBORN

For Rationale, Prerequisites, and Competencies See Web Processes:

All students on the Pediatric Clerkship should see one or more newborns and a newborn with either jaundice, prematurity, feeding problems, respiratory distress, hypoglycemia, or vomiting.

XI. MEDICAL GENETICS AND DYSMORPHOLOGY

For Rationale, Prerequisites, and Competencies See Web

XII. COMMON ACUTE PEDIATRIC ILLNESSES (Table 1)

For Rationale, Prerequisites, and Competencies See Web Processes:

- All students on the Pediatric Clerkship should see a patient or patients as listed in The Pediatric Portfolio Appendix 3.

XIII. COMMON CHRONIC ILLNESS AND DISABILITY

For Rationale, Prerequisites, and Competencies See Web Processes:

Students on the clerkship should see one or more patients with one of the chronic medical conditions listed above. This can be in the context of an acute or routine visit.

XIV. THERAPEUTICS

For Rationale, Prerequisites, and Competencies See Web

XV. FLUID AND ELECTROLYTE MANAGEMENT

For Rationale, Prerequisites, and Competencies See Web

XVI. POISONING

For Rationale, Prerequisites, and Competencies See Web

XVII. PEDIATRIC EMERGENCIES

For Rationale, Prerequisites, and Competencies See Web Processes:

All students on the pediatric clerkship should see a patient or patients, real or simulated, with respiratory distress

XVIII. CHILD ABUSE

For Rationale, Prerequisites, and Competencies See Web

XIX. CHILD ADVOCACY

For Rationale, Prerequisites, and Competencies See Web

Table 1. Common Pediatric Illness Table (This table is for your information only and should not be used as a guide to prepare for the NBME Shelf Exam.)

For each presenting symptom, finding, or laboratory value the columns list the suggested differential diagnosis based on level of competence.

| Presenting symptom, finding, or laboratory value | Core pediatric level | Mastery level |
|--|---|-----------------------------------|
| Cough and/or wheeze | Asthma | Allergic rhinitis |
| | Bronchiolitis | Chlamydia pneumonia |
| | Community acquired pneumonia | Cystic fibrosis |
| | Croup | Gastroesophageal reflux (GERD) |
| | Viral upper respiratory tract infection | Laryngomalacia and tracheomalacia |

| Presenting symptom, finding, or laboratory value | Core pediatric level | Mastery level |
|--|---|---------------------------------|
| | | Pertussis |
| | | Tuberculosis |
| Fever without a focus | Bacteremia/sepsis | JRA |
| | Meningitis | Malignancy |
| | Occult bacteremia | |
| | Urinary tract infection | |
| | Viral illnesses | |
| Sore Throat | Group a streptococcal pharyngitis | Peritonsillar abscess |
| | Mononucleosis | Retropharyngeal abscess |
| | Postnasal drip | |
| | Viral upper respiratory tract infection | |
| Otalgia | Otitis media, Acute and Recurrent | Dental caries |
| | Otitis media with effusion | Foreign body of the canal |
| | Otitis externa | Mastoiditis |
| | | Pharyngitis |
| | | TMJ syndrome |
| Rhinorrhea | Allergic rhinitis | Nasal foreign body |
| | Sinusitis | |
| | Viral URI. | |
| Fever and rash | Group A streptococcal infection | drug reaction |
| | Kawasaki disease | JRA |
| | meningococemia | Lyme disease |
| | viral exanthem | <i>Rickettsial</i> disease |
| | | Toxic shock syndrome |
| Abdominal pain | Appendicitis | Bowel obstruction |
| | Constipation/encopresis | Cholecystitis |
| | Gastroenteritis | Dysmenorrhea |
| | HSP | Gastritis |
| | intussusception | Incarcerated hernia |
| | Pelvic inflammatory disease | Inflammatory bowel disease |
| | Urinary tract infection/pyelonephritis | Malignancy |
| | | Malrotation and volvulus |
| | | Ovarian or testicular torsion |
| | | Pancreatitis |
| | | Peptic ulcer disease |
| | | Pregnancy |
| Diarrhea | Gastroenteritis | Celiac Disease |
| | | Clostridium difficile infection |
| | | Encopresis |
| | | Inflammatory Bowel Disease |

| Presenting symptom, finding, or laboratory value | Core pediatric level | Mastery level |
|--|------------------------------------|--|
| | | Malabsorption |
| | | Toddlers diarrhea |
| Vomiting | Gastroenteritis | Bowel obstruction |
| | Gastroesophageal reflux | Congenital adrenal hyperplasia |
| | Pyloric stenosis | Diabetic Ketoacidosis |
| | UTI/pyelonephritis | Eating disorder |
| | | Hepatitis |
| | | Inborn errors of metabolism |
| | | Intracranial process (increased intracranial pressure) |
| | | Meningitis |
| | | Poisoning |
| | | Pregnancy |
| | | Volvulus/malrotation |
| Rash | Atopic dermatitis | drug reaction |
| | Contact dermatitis | erythema toxicum |
| | cellulitis | molluscum contagiosum |
| | impetigo | Warts |
| | lice | |
| | monilial infections | |
| | scabies | |
| | seborrhea | |
| | urticaria | |
| | viral enanthem | |
| Limp or extremity pain | developmental dysplasia of the hip | Acute rheumatic fever |
| | fracture | Henoch Schönlein purpura |
| | Legg-Calve-Perthes disease | JRA |
| | Nursemaid elbow | Lyme disease |
| | Osgood Schlatter disease | Malignancy |
| | Osteomyelitis | reactive arthritis |
| | Septic arthritis | sickle cell crisis |
| | Slipped capital femoral epiphysis | |
| | transient synovitis | |
| Headache | meningitis | Brain tumor |
| | tension headache | Concussion |
| | | hydrocephalus |
| | | increased intracranial pressure |
| | | metabolic disorders |

| Presenting symptom, finding, or laboratory value | Core pediatric level | Mastery level |
|--|---|------------------------------|
| Seizures | febrile seizures | idiopathic seizures |
| | | Meningitis |
| | | post traumatic seizure |
| | | toxic ingestions |
| Bruising | trauma | coagulopathy |
| | | Leukemia |
| Petechiae/purpura | ITP | Leukemia |
| | sepsis | coagulopathy |
| | trauma | rickettsial infection |
| | vasculitis | |
| | viral infections | |
| Heart murmur | innocent murmur | Anemia |
| | | CHF |
| | | Myocarditis |
| | | PDA |
| | | valvular defects |
| Lymphadenopathy | Bacterial adenitis | Cat scratch disease |
| | Streptococcal pharyngitis | HIV |
| | Viral illnesses (general or specific such as EBV) | Kawasaki disease |
| | | Malignancy |
| | | Mycobacterial adenitis |
| Splenomegaly | Malignancy (e.g. leukemia) | Hemolytic anemia |
| | Mononucleosis | Sickle cell anemia (infancy) |
| | | Systemic infectious diseases |
| Hepatomegaly | hepatitis | congestive heart failure |
| | | inborn errors of metabolism |
| | | systemic infectious diseases |
| Abdominal mass | hydronephrosis | |
| | malignancy | |
| | pregnancy | |
| | stool | |
| White pupillary reflex | cataracts | |
| | retinoblastoma | |
| Red or wandering eye | conjunctivitis | Allergy |
| | strabismus | Esotropia |
| | | Exotropia |
| | | foreign body |
| | | Trauma |
| Anemia | iron deficiency anemia | anemia of chronic disease |

| Presenting symptom, finding, or laboratory value | Core pediatric level | Mastery level |
|--|-------------------------|--|
| | sickle cell anemia | bone marrow failure |
| | thalassemia | hemolytic anemia |
| | | hemolytic uremic syndrome |
| | | Malignancy |
| Hematuria | glomerulonephritis | benign familial hematuria |
| | trauma | hemolytic uremic syndrome |
| | UTI | hypercalciuria |
| Proteinuria | nephrotic syndrome | transient proteinuria |
| | orthostatic proteinuria | glomerulonephritis |
| Positive Mantoux skin test | latent tuberculosis | non-tuberculosis mycobacterial infection |
| | active tuberculosis | |

MEDICAL STUDENT EVALUATION METHODS

Pediatric Oral Examination (POE)

At the beginning of the clerkship, the student will be given ten case scenarios to prepare for the oral examination. During the 5th or 6th week of the clerkship, the student will meet with the Clerkship Director (or designee), to be evaluated on three of the POE scenarios. Each student will randomly select three cases from the ten case scenarios and will be allotted 20 minutes per case (1 hour maximum for all three cases). Students will answer questions as listed and there will be no prompting. The POE performance will be evaluated according to standardized criteria (see POE Evaluation form in Section A). Performance on the POE is one of three equally weighted components of the final grade and will account for 33.3% of the final grade.

Formal Written H&P's

During the inpatient portion of the clerkship, the student is required to complete two formal write-ups (including master problem list and discussion), and submit them for grading. Two sample H&P's with comments are included in Appendix 1. The student may submit one "practice" write-up for review by and feedback from the Clerkship Director prior to submitting the two write-ups for grading. The practice write-up is optional and cannot be counted towards the grade. Write-ups must be submitted by the end of the clerkship. Write-ups are evaluated according to standardized criteria (see Evaluation of Written Record form in Section A). Formal write-ups account for 33.3% of the final clerkship grade.

Clinical Performance Evaluations (CPE)

At the end of the clerkship experience, CPE forms are completed by attendings, residents, and other instructors who have supervised the student during the clerkship using the on-line E-Value web-base site (see CPE form in Section A). Obtaining a passing grade as defined in this manual is required in order to pass the clerkship.

NBME/USMLE Shelf Exam in Pediatrics

This exam is given to all students at the end of the clerkship. As is the national standard, **two hours and ten minutes** is allotted for this examination. Time will not be extended beyond the close of the examination (see Block III Handbook for complete details). The NBME/USMLE performance accounts for 33.4% of the final clerkship grade.

The Pediatric Portfolio:

Clinical Encounters

The student shall record all required patient encounters using E-Value PxDx on PDA/web according to the directions therein. These will be reviewed at the mid-clerkship evaluation meeting by the Clerkship Director, and again at the completion of the clerkship. Successful passage of the clerkship requires that all items in all categories be completed during the Clerkship.

CLIPP Cases

Each student must complete a minimum of 10 CLIPP cases during the course of the clerkship. More information including the list of required cases is provided on page 20 of this manual.

Pediatric Procedures

Pediatric procedures required during the Clerkship are listed in Table 2. Students are expected to learn/participate in these procedures depending upon the involvement code specified in Table 2. These will also be documented using E-Value PxDx on PDA/web.

Performance Based Assessment: Newborn Examination – (PBA Evaluation Form in Section A).

Each student will be assessed on the performance of a comprehensive normal newborn examination, while observed by resident and/or faculty preceptor and will achieve the pass level specified. This will also be documented using E-Value PxDx on PDA/web. The preceptor will observe the student performing the exam and complete the Newborn PBA Checklist (see Section A). The student will have two attempts to pass this exercise

Structured Clinical Observations (SCO) (Evaluation Forms in Section A)

A Structured Clinical Observation (SCO) is a formal method for a student to be observed and then receive feedback on one component of a history or physical examination. For the pediatric clerkship each student is required to complete **at least one** SCO for **each** of the following components of the physical examination of an infant or child: HEENT, Cardiopulmonary and Abdomen. The preceptor will observe the student and then provide the student oral and written feedback using the form provided in Section A. Preceptors may be residents or attending faculty but at least one of the three SCO's must be completed by an attending physician. Students must turn in the three completed forms to the clerkship director by the end of the clerkship.

PICO Question – Each student must develop one searchable clinical question using the PICO format (see appendix 2) on at least one patient encountered during the course of the pediatric clerkship. The student will submit this question to the Clerkship Director for review and evaluation by the Mid Clerkship meeting (see below). The student will have two attempts to pass this exercise.

MID-CLERKSHIP EVALUATION

The student will meet with the Clerkship Director halfway through the clerkship, for review of the clinical experience; performance feedback; and review of the Pediatric Clerkship tasks requiring documentation and/or verification (see Mid-Clerkship Evaluation Form in Section A). The student should bring a copy of his/her CLIPP case summary to their mid-clerkship evaluation to be reviewed by Clerkship Director. Clerkship Director will review the Pediatric Electronic PxDx Log before the mid-clerkship evaluation meeting.

STUDENT EVALUATIONS, GRADING AND REMEDIATION

Student Evaluations and Grading

Student evaluation will consist of seven graded components, each of which must be passed at the level defined. (See Criteria for Determining Grades).

- 1) Pediatric Oral Exam (POE – 3)
- 2) Formal Written H&P's (2)
- 3) Clinical Performance Evaluations (CPE's)
- 4) NBME/USMLE Shelf Exam in Pediatrics
- 5) Completion of Pediatric Portfolio - (Clinical Encounters; Pediatric Procedures; Performance Based Assessment, Structured Clinical Observations, and PICO Question)

Pass Levels

To obtain a Pass (P) grade, the student must pass each of the following evaluation components at the pass level listed.

| <u>Evaluation Components</u> | <u>Pass Level</u> |
|---|---|
| 1. Pediatric Oral Exam (3). | 11/15 at 3.00 or above |
| 2. Formal Written H&P's (2). | 18/24 at 3.00 or above |
| 3. Clinical Performance Evaluations | 85% or greater in the "Usually" and/or "Consistently" categories; no more than 2 unprofessional behavior notations. |
| 4. NBME/USMLE Shelf Exam in Pediatrics. | ≥61 |
| 5. Instructor's Evaluation of Pediatric Portfolio | Pass |

Failure to pass any one component will result in a "CP" grade and required remediation. Failure to pass two or more components will result in an "N" grade.

HONORS

At the grading session, clerkship directors review the performance of the students. Those students who have demonstrated exceptional performance by the criteria defined below will be awarded honors in Pediatrics.

Honors Criteria

1. Clerkship Director Recommendation.
2. Student must also meet **ALL** of the following criteria:
 - a. Pediatric Oral Examination (POE) ≥4.30 - Scores below 4.30 (e.g. 4.29) will not be rounded upward to 4.30.
 - b. Formal Written H&Ps Evaluation. ≥4.30 - Scores below 4.30 (e.g. 4.29) will not be rounded upward to 4.30.
 - c. Clinical Performance Evaluation. 75% or greater in the "Consistently" category; no "Seldom rates; no unprofessional behavior notations
 - d. NBME/USMLE Shelf Exam in Pediatrics. ≥81
 - e. Completion of Pediatric Portfolio Student must pass all the Pediatric Portfolio tasks as required

CONDITIONAL PASS (CP) GRADE

Student will receive a Conditional Pass (CP) grade when she/he fails to obtain a pass level score in any one of the seven evaluation components. Student will be required to remediate a CP grade.

Remediation

Remediation can **NOT** be taken during the clerkship. Anyone who remediate's is **NOT** eligible for honors. Recommended remediation's to obtain a passing grade (P) from a conditional pass (CP) in the clerkship are listed below:

1. Deficiency in Pediatric Oral Exam Evaluation:

Remediation: Student must be re-evaluated in Pediatric Oral Exam and receive a score of on at least 11 of 15 items 3.00 or above. A four-week re-enrollment in extended clinical experience PHD 633 is not required but is strongly recommended.

2. Deficiency in Formal Written H&Ps:

Remediation: Student must re-enroll for four weeks in extended clinical experience (PHD 633) and receive a mean score of at 3.00 or above on at least 8/11 items on Formal Written H&P's evaluation.

3. Deficiency in Clinical Performance Evaluation:

Remediation: Student must re-enroll for four weeks in extended clinical experience (PHD 633) and satisfactorily complete the required CPE indicators in Data Collection & Assessment Skills as well as Professional Behavior.

4. Deficiency in Final NBME/USMLE Shelf Exam in Pediatrics:

Remediation: Student must remediate by obtaining ≥ 61 on a repeat examination. A four-week re-enrollment in extended clinical experience PHD 633 is not required but is strongly recommended..

5. Deficiency in Pediatric Portfolio:

Remediation: Student must re-enroll for four weeks in extended clinical experience (PHD 633) and satisfactorily complete all –clinical encounters and/or pediatric procedures listed in Appendix 3.

NO PASS - (N) GRADE

1. Failure to obtain a pass level score in two or more evaluation components will result in a No Pass Grade (N) grade.
2. Any report of unprofessional behavior (i.e., instances of dishonesty; behaviors which compromise the safety or endanger the welfare of a patient; instances of threats of harm to patients, patients' families, students, faculty or staff) listed within the red box on the CPE form.
3. Unsuccessful completion of remediation, following a CP grade, will also result in a No Pass Grade.

If an "N" grade is received, the student **MUST RE-ENROLL** in clerkship (PHD 600) for eight weeks.

OVERALL CLERKSHIP PERFORMANCE DESCRIPTOR

Descriptors for overall clerkship performance and Dean's letters are determined by adding 50% of the mean score obtained in the Formal Written H&Ps and mean score obtained in the POE to the "points" allotted for multiple-choice exam. The points for multiple-choice exam are determined by the following table:

| | | | |
|-------------------|------------------|------------------|------------------|
| >81 = 5.00 points | 75 = 3.80 points | 69 = 2.60 points | 63 = 1.40 points |
| 80 = 4.80 points | 74 = 3.60 points | 68 = 2.40points | 62 = 1.20 points |
| 79 = 4.60 points | 73 = 3.40 points | 67 = 2.20 points | 61 = 1.00 points |
| 78 = 4.40 points | 72 = 3.20 points | 66 = 2.00 points | |
| 77 = 4.20 points | 71 = 3.00 points | 65 = 1.80 points | |
| 76 = 4.00 points | 70 = 2.80 points | 64 = 1.60 points | |

Descriptor cut-offs for the final clerkship performance and Dean's letters are:

| | | |
|---------------|---|---------------|
| Excellent | = | ≥13.00 |
| Above Average | = | 11.10 - 12.99 |
| Average | = | 9.30 - 11.09 |
| Adequate | = | 7.50 - 9.29 |

ON-CALL REQUIREMENTS

To maximize student's clinical experience, each student is required to be on five inpatient calls during the Clerkship rotation. It is expected that one of those calls has to be on a weekend. Weekend calls will start with morning report and end at midnights. The remaining 4 calls will be week night calls beginning at 5:00 p.m. and ending at midnight. However, when a student is on-call, he/she won't leave until patient information has been transferred to the next responsible team member. Following a call (both weeknight and weekend), students are expected to report at their normally scheduled time. Students will not be scheduled any more frequently than every 3rd night except at their request. Considering various factors unique to a community, Clerkship Directors may implement equivalent on-call opportunities, i.e., night float week or taking calls with the preceptor.

GRADES AND MARKERS UTILIZED BY CHM

P (Pass)

Credit is granted and that the student achieved a level of performance judged to be satisfactory by the department's criteria.

CP (Conditional Pass)

The student has met almost all of the course objectives (criteria for passing), but is deficient in a specific, definable course segment. The Clerkship Director believes the student need not repeat the entire course and the character of the deficiency is specific and identifiable and is likely to be remediable within a foreseeable time span and through specifiable action by the student. This remains on the transcript as CP/P or CP/N. If not completed by the middle of the student's next term in attendance, an extension must be made by departmental administrative action or the grade will automatically convert to an N.

N (No Grade)

No credit is granted and that the student did not achieve a level of performance judged to be satisfactory by the Clerkship Director. Course must be repeated.

ET (Extension)

Administrative delay in providing the grade, i.e., clerkship is not over by the time grades must be submitted to the University. This does not remain on the transcript.

FINAL EXAM POLICY FOR PEDIATRIC CLERKSHIP

Because students learn at different rates, they may not feel prepared to take the final exam at the end of the eight-week clerkship. To support and facilitate student development, students may elect not to take the final exam at the time it is scheduled. In this event, a conditional pass (CP) grade will be submitted. The student will be scheduled at a time when the Department routinely offers the examination, and/or Christmas break or Spring break. It is strongly recommended that the student NOT take the pediatric examination with any other clerkship examinations.

Off-cycle and remedial exams can be taken at a time other than specified if the student has a valid reason for doing so and if the student has received permission from the Community Assistant Dean and from the Community Clerkship Director. In addition, the department must receive adequate notification of the date on which the exam will be taken (see Block III Student Handbook - Administration of Clerkship Final Examination). Students may NOT take the final examination **earlier** than the scheduled examination date.

EXCUSED ABSENCES FOR THE FINAL EXAM IN PEDIATRICS

An excused absence from the final exam may be granted for a death or life-threatening illness in the immediate family or for personal illness. The student must immediately notify the Clerkship Director before the scheduled exam, and in the case of illness must provide a written excuse from an attending physician documenting the illness and an office visit prior to or on the day of the exam. In these

situations, the student will receive an ET grade and will need to reschedule the examination at a time when the Department routinely offers the examination.

MAKE-UP EXAM POLICY

All make-up exams, regardless of the reason, must be taken during a regularly scheduled exam or during Christmas or Spring Break.

Off-cycle and remedial exams can be taken at a time other than specified if the student has a valid reason for doing so and if the student has received permission from the Community Assistant Dean and from the Community Clerkship Director. In addition, the department must receive adequate notification of the date on which the exam will be taken.

ATTENDANCE/ABSENCE POLICY

Students must be available to participate in all aspects of the clerkship, on weekdays, evenings and weekends as designated by the clerkship director. Attendance at all scheduled clerkship activities—focal problems, clinical assignments, rounds, lectures, clinical experiences such as surgeries, deliveries, etc.—is mandatory.

If a student is unable to be present for any required clerkship activities because of extenuating circumstances, he or she is required to complete a CHM Excused Absence Form and have this form signed by the community clerkship director and community administrator. In all cases except for emergencies and sudden illness, the form must be completed and the absence approved at least 30 days prior to the beginning of the clerkship from which time off is being requested. Time off for religious holiday observance should also be submitted at least 30 days prior to the beginning of the clerkship from which time off is being requested. If permission for an absence is granted, the student must notify his/her preceptor.

In the case of emergency or sudden illness, the student must contact the community clerkship director, the community assistant dean's office, and his/her preceptor. Depending on the circumstances and length of absence, the student may be required to provide documentation.

Students will not be excused from required clerkships to take either of the Step 2 exams. Any student who takes time off a required clerkship to sit for either part of the Step 2 exam will receive an N grade for the clerkship and need to repeat the clerkship.

Time missed during the clerkship—including for illness and other excused absences—must be made up. Students with excused or unexcused absences of more than five days in an eight-week clerkship, and more than two-and-a-half days in a four-week clerkship, will be required to repeat the clerkship. (Time off for religious holiday observance and for college-wide activity days will not be counted as absences.) Some clerkships may have more stringent attendance policies; be sure to check the appropriate clerkship handbook for more specific information.

Any unexcused absences will be considered unprofessional behavior and will be noted as such by the clerkship director on the student's CPE form and in the final clerkship letter, and may be incorporated into the Medical Student Performance Evaluation.

Since the faculty of the College believes that continuity of clerkship experience is important, the College of Human Medicine does not allow students to engage in part-time clerkships. This means that clerkships cannot be experienced as a series of half-days, nor can there be breaks in between weeks of a clerkship. On occasion, a student starts a clerkship but must leave due to extenuating circumstances (illness, delivery, death in the immediate family, etc.) If, for extenuating circumstances and with appropriate permission, a student has to leave the clerkship **prior to the mid-point of a clerkship**, the student must repeat the entire clerkship (a "drop" will be issued). If, however, a student, due to extenuating circumstances and with appropriate permission, has to leave the clerkship **after the mid-point of the clerkship**, the student must complete, **within a time period no later than six months**, all the unmet requirements of the clerkship (written, oral, evaluation assignments, out-patient and in-patient experiences, etc.). In this circumstance an "ET" grade will be issued and the student does not need to repeat the clerkship experiences s/he engaged in prior to departure.

STUDENTS GUIDE

COMPUTER ASSISTED LEARNING IN PEDIATRICS PROJECT (CLIPP) CASES

The CLIPP project was developed as a collaborative venture of the Council on Medical Student Education in Pediatrics (COMSEP) and the Dartmouth Medical School. It has 31 evidence-based, peer-reviewed clinical case scenarios and a unique problem solving exercise called the diagnostic network to provide content instruction for the bulk of the COMSEP national pediatric clerkship curriculum.

The CLIPP cases are Web-based and so you may compete them anywhere you can access the Internet. They work on either PC or Mac based systems. Convenient places to work on CLIPP cases are in the Assistant Dean's Offices or other education sites (libraries).

The cases were designed to take about 45 minutes each to complete. Experience at other institution has shown that most students choose to follow many of the links and checks of their progress, so the time is actually at least an hour. It's slightly longer for the first few cases when students are not used to completing the diagnostic network pages.

The 31 cases are interactive, frequently requiring the student to make decisions about diagnoses and clinical management, but providing support from an expert – the case author. CLIPP cases incorporate multimedia extensively, yet are designed to run over a standard Internet connection. A unique feature of the CLIPP software is the Diagnostic Network, which focuses the students' learning on clinical reasoning. At key points in the case the student is required to develop differential diagnosis based on the case findings. The student is also asked to justify the differential diagnosis by showing whether findings argue for or against the differential diagnosis. CLIPP cases are available via the Internet – (<http://www.clippcases.org>)

CLIPP and your clerkship grading

You must complete the following 10 cases as part of your Pediatric Portfolio requirements:

Cases 1, 5, 14, 17, 18, 20, 22, 28, 29, 31

To document that you have completed the assigned cases, print out a copy of the Case Summary Page from the CLIPP website and submit it to your clerkship director at both the mid-clerkship feedback session and at the end of the clerkship. (Printing this page is easiest if you use Internet Explorer as your browser.)

In addition to the 10 assigned cases, you are encouraged to complete as many additional cases as possible. Several cases have been noted to have material that is related to the questions on the Pediatric Oral Exam (POE's). You may use these as supplemental resources in your preparation of these cases. **Please note that these CLIPP cases are supplemental resources only and are not sufficient in preparation of these cases.** The list of POE cases and the related CLIPP cases are provided below:

| POE case | Corresponding CLIPP Case |
|----------|--------------------------|
| 3 | 13 |
| 4 | 15 |
| 6 | 7 |
| 8 | 19 |
| 10 | 30 |
| 11 | 4 |
| 12 | 8 |
| 13 | 23 |
| 14 | 10 |

Finally, CLIPP cases are used as a substitute for clinical encounters when students are unable to find real patients who meet the requirements listed. Please refer to Table 2 at in this manual for specific cases to be used in such instances.

QUESTIONS?

Any CLIPP questions or problems should be directed to your Clerkship Director.

Complete List of CLIPP Cases:

1. Prenatal and newborn visits-Thomas
2. Infant well child (2,6, and 9 months)-Asia
3. 3-year-old well-child visit-Benjamin
4. 8-year-old well-child check-Jimmy
5. 16-year-old girl's health maintenance visit-Betsy
6. 16-year-old boy's presport physical-Mike
7. Newborn with respiratory distress-Adam
8. 6-day-old with jaundice-Meghan
9. 2-week-old with lethargy-Crimson
10. 6-month-old with a fever-Holly
11. 5-year-old with fever and adenopathy-Jason
12. 10-month-old with a cough-Anna
13. 6-year-old with chronic cough-Sunita
14. 18-month-old with congestion-Rebecca
15. 6-week-old with vomiting-John
16. 7-year-old with abdominal pain and vomiting-Isabella
17. 3-year-old refusing to walk-Emily
18. 2-week old with poor weight gain-Tyler
19. 16-month-old with first seizure-Ian
20. 7-year-old with a headache-Nicholas
21. 6-year-old with a rash-Melanie
22. 16-year-old girl with abdominal pain-Mandy
23. 11-year-old girl with lethargy and fever-Sarah
24. 2 year-old with altered mental status-Matthew
25. 2-month-old with apnea-Jeremy
26. 9-week-old not gaining weight-Bobby
27. 8-year old with abdominal pain-Jenny
28. 18-month-old with developmental delay-Anton
29. Infant with hypotonia-Daniel
30. 2-year-old with sickle cell disease-Gerardo
31. 5-year-old with puffy eyes-Katie

STUDENT RESPONSIBILITIES REGARDING PATIENT SUPERVISION

All medical procedures performed by medical students must be supervised by a licensed physician responsible for the care of the patient. Before starting any procedure the medical student must be told to do the procedure on the patient by a physician responsible for the care of this patient. The supervising physician and the student share the responsibility for determining the level of supervision needed: either direct supervision (i.e., an appropriate supervisor is present while the procedure is being performed) or indirect supervision (i.e., an appropriate supervisor can be called into the room within a time span appropriate for that procedure). It is understood that a complete list of procedures that a medical student may perform is neither possible nor desirable to establish.

- A. No procedure should be attempted by the medical student unless s/he is given permission to do so by a physician responsible for the patient.
- B. If a student does not feel capable, then s/he must not undertake performance of the procedure without further instruction and direct supervision.
- C. If the student is not known by the patient, the student should properly identify her/himself to the patient.
- D. If the medical student is not successful in the performance of a procedure within the reasonable amount of time or without undue discomfort to the patient, the medical student must withdraw and notify the supervising physician.
- E. It is the responsibility of the medical student to cease and desist from the performance of any procedure at the direction of any nurse responsible for that patient, if that nurse has reasonable cause to ask the student to cease and desist. The supervising physician should be notified promptly of any such action.
- F. The student has the responsibility to record on the chart that a procedure was undertaken, the reason for the procedure, the outcome of the procedure, the patient's condition at the conclusion, and plan for post-procedure interval.

MEDICAL STUDENT ATTIRE AND ETIQUETTE

Medical students are to wear CLEAN, WHITE, SHORT lab coats during the clerkships unless otherwise instructed. An identification tag, which is furnished by the Community Assistant Dean's office, must also be worn at all times. As a student, you will be coming in close contact with patients, physicians, peers and other health care professionals each day; good personal hygiene should be practiced. It should also be noted, that although the College does not have a "dress code", tennis shoes and jeans are not considered appropriate attire

for hospital/office/clinic settings. Throughout your clerkships there will be numerous times when you will wear hospital scrubs. Remember that scrubs are the property of the hospital and are not to be taken home as your own.

You should introduce yourself to patients and other health care professionals as a medical student, not as a physician. This is important so that individuals do not assume that you have more responsibility or authority concerning patient care than that of a medical student. When you are addressing patients it is also recommended that they be addressed using last names. This more formal approach can be relaxed if the patient specifically requests that you use his/her first name.

Remember, in the clinical setting, you are a reflection of the College of Human Medicine.

CHM CLINICAL STUDENT WORK HOURS POLICY

Clinical student work hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities. Students must be provided with one day in seven free from all educational and clinical responsibilities, averaged over a four-week period, inclusive of call. Adequate time for rest and personal activities must be provided. This should consist of a 10-hour time period provided after in-house call lasting 24 or more hours.

CHARTING POLICIES

As a medical student, any information you enter on the patient chart (i.e., history and physical, discharge summary, progress notes) *MUST BE COUNTERSIGNED BY A PHYSICIAN.*

Each hospital sets its own policies concerning what a student can enter on a patient's chart. Please check with your Community Assistant Dean about hospital policies in your community.

EXPOSURE BY STUDENTS TO BLOOD OR OTHER BODY FLUIDS

If a CHM student sustains a percutaneous, mucous membrane or open wound exposure from the blood or other body fluids of a patient while the student is carrying out his/her duties dictated by the College, it should be reported to the hospital's employee health, where the incident occurred, and to the College.

SEXUAL HARASSMENT POLICY

Sexual harassment in the College of Human Medicine, Michigan State University is considered intolerable behavior. It is a violation of federal law; a violation of trust; a violation of moral standards. Sexual harassment is a behavior; it is defined as unwelcome (unwanted, uninvited) behavior of a sexual nature including unwanted touching, fondling or hugging; or behavior which has the purpose or effect of unreasonably interfering with an individual's work performance or which creates an intimidating, hostile or offensive work environment; or direct or implied threat that submission to sexual advances is a condition for education or educational rewards (i.e., grades).

Any student who has been subjected, or who feels that s/he has been subjected to sexual harassment should immediately advise the Assistant Dean so that the matter can be investigated and action taken if harassment has occurred.

The Dean of the College of Human Medicine is committed to the goal of creating a work environment in which students, faculty and staff can be communicative, supportive and sensitive to each other.

CLERKSHIP ORIENTATION POLICY

Each clerkship commences with an orientation to the clerkship. **Attendance at the orientation is mandatory.** Inability to be present for this session must be reported to the community Clerkship Director. For extenuating circumstances only, the Clerkship Director may determine that the absence is excused. In such an unusual event, the Clerkship Director or his/her designee will be asked to provide the

student with a separate orientation. Unexcused absences will require that the student is to read the handbook, familiarize him/herself with all the requirements of the clinical rotation, including exam and evaluation policies. Lack of understanding of the requirements due to unexcused absence at the orientation session will not serve as an excuse for less-than-acceptable performance in any component of the clerkship.

HOLIDAY/TIME OFF POLICY

To maintain consistency across the communities, the clinical departments (Family Practice, Medicine, Ob/Gyn, Pediatrics, Psychiatry, and Surgery) of the College of Human Medicine expect that the **Holiday/Time off Policy** will conform to the "University designated holiday(s)" each year.

| | |
|--------------|--|
| Memorial Day | University designated holiday |
| July 4th | University designated holiday |
| Labor Day | University designated holiday |
| Thanksgiving | University designated holiday (two days) |
| Christmas | University designated holiday (two days) |
| New Years | University designated holiday (two days) |

Religious Holidays

In keeping with the university policy on religious observances, faculty will honor student absences and requests for make-up opportunities when class activities fall on religious holidays. Students need to submit a request for an excused absence at the beginning of the clerkship or prior to the date of the religious event. In the event an examination is scheduled on a religious holiday, please submit a request for an excused absence with the appropriate Clerkship Director. This will insure that the appropriate faculty member is notified of your absence and an opportunity for make-up will be provided.

CHM Sponsored Activities

Students are excused from clerkship responsibilities to attend College sponsored activities. Students not attending these activities are expected to fulfill their clerkship responsibilities.

USMLE I and II

Students are excused from clerkship responsibilities at 5:00 p.m. on the day prior to and on the actual days of the examination.

PROFESSIONAL BEHAVIOR & ACADEMIC DISHONESTY

Michigan State University has established policies on the integrity of scholarship and grades which are contained in the All University Policy on Integrity of Scholarship and Grades, General Student Regulation 1.00 Protection of Scholarship and Grades, ordinance on Examinations, and Academic Freedom for Students. The College of Human Medicine supports these policies and the additional policies and procedures described in the Medical Students' Rights and Responsibilities (MSRR) document. Additionally, the College holds students responsible for exemplary professional behavior as described in the Student Oath and the Principles of Professional Behavior. Nevertheless, regular intimation of unprofessional behavior and academic dishonesty suggest that the College needs to clarify the responsibilities of students, faculty, and administrators in upholding professional behavior and maintaining the integrity of scholarship and grades.

Students' Responsibilities

Students are responsible for their own behaviors and are expected to maintain stated standards of academic honesty. Students share the responsibility with the faculty for maintaining an environment that supports academic honesty and scholarship and discourages cheating and other unprofessional behaviors. Therefore, students are expected to:

1. Demonstrate appropriate professional behavior in all clinical and academic settings, including appropriate dress, punctuality (including handing in written assignments on time), respect, courtesy and helpfulness toward patients, preceptors, teachers, staff and classmates.
2. Develop personal practices that prevent suspicion of academic dishonesty such as avoiding sitting near friends in exams or avoiding wandering eyes.
3. Report instances of academic dishonesty and unprofessional behavior to appropriate faculty and administrators.
4. Name individuals involved in academic dishonesty and unprofessional behavior. This is an important responsibility of students. Faculty and administrators are unable to take appropriate action unless students are willing to take the initiative to report

unprofessional behavior and to name the individuals involved. This is a first but necessary step in becoming a professional and learning to monitor ones peers.

5. Participate as a witness at judicial hearings in alleged cases of academic dishonesty and unprofessional behavior.
6. Avoid generating accusations of academic dishonesty and unprofessional behavior that cannot be substantiated.

Faculty and Administrator Responsibilities

Faculty is responsible for creating an environment that discourages cheating and other unprofessional behaviors, confronts suspected violators and insures fair treatment of all students. The College and University administrators also share the responsibility for developing an environment that discourages academic dishonesty. Accordingly, administrators are expected to:

1. Respond in a timely fashion to follow-up accusations of academic dishonesty.
2. Implement Departmental, College and University procedures to investigate accusations of student unprofessional behavior and academic dishonesty (See MSRR document).

Unprofessional Behavior/Academic Dishonesty

The following activities are considered to be examples of unprofessional behavior or academic dishonesty.

1. Behavior which diminishes or threatens patient safety and welfare.
2. Falsifying clinical records (e.g., noting that a physical exam had been performed when it had not).
3. Fabrication of written records (e.g., "making up" data on clerkship written records).
4. Unexcused absences in clinics, hospitals and other clerkship obligations.
5. Falsifying reasons for excused absences from clerkships or examinations.
6. Presenting or publishing data (including electronically) from a collaborative research project without the principle investigator's permission.
7. Plagiarism defined as representing as one's own, the ideas, writings, or other intellectual properties of others, including other students.
8. Treating faculty, peers, nurses, other health care professionals, staff of academic centers and other institutions with lack of respect and courtesy.
9. Taking an examination for someone else or preparing and submitting an assignment for someone else.
10. Receiving, retaining, and/or using materials obtained in a manner that is defined as academically dishonest.

PRINCIPLES OF PROFESSIONAL BEHAVIOR

The College of Human Medicine's Code of Professional Behavior continues in full force and students are expected to conduct themselves in accordance with its tenets.

In order to promote and maintain appropriate professional behavior and to assure that the medical services provided by students, under the supervision of faculty, meet a high standard of care which reflects values consistent with the ideas of the profession of medicine, the College of Human Medicine, and the laws of the State of Michigan, faculty and students of the College of Human Medicine affirm the following principles of professional behavior.

It is recognized that a code of professional behavior cannot encompass all potential issues of conduct, which may arise. Judgments regarding professional behavior contain an irreducible element of subjectivity making it impossible to specify in detail, before the fact, all and only those behaviors, which may be called into judgment as unprofessional. Further, all codes of behavior are dynamic entities, subject to growth, revision, and modification over time. Hence, principles of professional behavior are not rules, which specify behaviors but instead are guidelines, which provide direction in identifying appropriate conduct.

There are, however, basic tenets which under grid the concept of profession and which give shape and meaning to professional work. The centrality of a code of professional behavior which explicates relations with patients and with colleagues is itself a definer of profession. An attitude toward work in which satisfaction is derived from the work itself and where accomplishment is measured by the requirements of the task is also basic to professionalism. In addition, a selection process, the long period of training and the lifelong commitment to service are hallmarks of professional life. Thus, excellence, diligence and commitment to work, and concern, compassion and integrity in relations with patients and co-workers are fundamental. The principles here endorsed provide guidelines for judgment as to the extent the appropriate values regarding work and relationships with others are embodied in the behaviors of the individual who seeks to be a professional, with personal integrity so basic as to be a given. (Integrity is trustworthiness and incorruptibility to the degree that an individual is incapable of being false to a trust or a responsibility).

Further, the ethical standards of the profession as they are incorporated in documents such as the *Principles of Medical Ethics of the American Medical Association* and the *Oath of Hippocrates* are acknowledged as applicable to the behavior of medical students. There are some unique aspects of the medical student role, however, which need recognition as sources of ambiguity and potential role conflict.

1. The medical student has a limited role, hence limited responsibility. S/he is – continuously under the supervision and direction of others, including full-time academic and clinical faculty, adjunct clinical faculty, and house officers.
2. The acts of the medical student are often part of a program of diagnostic and/or therapeutic action decided upon by others who are directly and legally responsible for the patient.
3. The medical student is in the classroom, the physician's office and on the inpatient service primarily to learn.
4. The medical student's skill and judgment are that of a novice, in which growth and change in competence comes with time and as a consequence of study and experience.
5. The medical student is a member of the health care team, deserving of respect and recognition as a contributor to patient care and as a human being of dignity and worth.

In pursuit of these ideals, medical students subscribe to principles in the following areas:

- I. Safety and Welfare of the Patient
- II. Competence
- III. Responsibility
- IV. Ethical and Legal Standards
- V. Personal Behavior
- VI. Professional Relationships
- VII. Confidentiality
- VIII. Learning and Research Activity.

Safety and Welfare of the Patient

The safety and welfare of the patient are of prime concern to the medical student. Regardless of the pull of competing needs and activities, the medical student will do that which, in the professional judgment of the medical student and his/her supervisor, is for the benefit of the patient.

Competence

The achievement of excellence is the goal of the medical student, while competence is the minimum essential for performance. The medical student knows the limits of his/her knowledge and skills and restricts his/her activities accordingly.

Responsibility

The medical student accepts responsibility for the consequence of his/her actions. In utilizing his/her knowledge and skills for the benefit of the patients and colleagues, s/he relates openly and honestly to patients, faculty, and fellow students.

Ethical and Legal Standards

Medical work is defined by the ethical standards of the profession, the laws of the State and by societal values. While the personal values of the medical student shape his/her behavior, the medical student understands that patients and colleagues have the right to expect medical student behavior to show sensitivity to ethical, legal, and social norms.

Personal Behavior

The medical student, while accorded the same rights as all citizens, acknowledges that special personal demands are imposed on him/her because the consequences of medical student behavior impact on the safety and welfare of others entrusted to his/her care.

Professional Relationships

The medical student acknowledges the duties of respect, courtesy, assistance, and suggestions as basic to all relationships between and among colleagues. The medical student recognizes that professional work collegially and that s/he is a colleague of his/her fellow student and a junior colleague of the professionals comprising the health care team.

Confidentiality

The medical student acknowledges that to participate in in-patient care binds the medical student to a confidential relationship with patients and other care providers whenever the interests of the patient are at issue. As a provider of care, the medical student is accorded the privilege of knowing, that which is private and personal to the patient. The medical student understands that to reveal such information, save when necessary to the care of the patient, is a violation of trust.

Learning and Research Activity

The medical student acknowledges the centrality of learning in the development and maintenance of professional judgment and the need for integrity and a strong sense of the ethical in the application of learning to the tasks of the classroom, the research laboratory, or at the patient's bedside. The medical student understands that learning may encompass the critical assessment of the intellectual effort of other or the conscientious production of new scientific knowledge. For the professional, learning continues throughout his/her career.

POLICY FOR DROPPING CLINICAL CLERKSHIPS

Students are not permitted to drop or withdraw from a required clinical clerkship once they have commenced the clerkship except under rare and extraordinary circumstances. Merely having academic difficulty is insufficient cause for dropping or withdrawing from a clerkship. If extenuating circumstances present themselves such that a student cannot continue a required clerkship, the student must meet with the Community Assistant Dean or his/her designee to outline the circumstances and to discuss future plans for continuation in Block III.

The Community Assistant Dean's office must get final approval for dropping a clerkship from the Block III Director. The Block III Director will be responsible for notifying the appropriate clinical department.

This policy assures that (1) students do not drop clerkships without good cause, that (2) the College can be responsive to extenuating student circumstances and that (3) some level of consistency in decision-making can be exerted across the multi-campus system.

For information on the following items, please refer to the current Block III Handbook or check with your Community Administrator:

- **EXPOSURE CONTROL INCIDENT REPORTING FORM**
- **GUIDELINES RELATED TO EXPOSURE CONTROL**
- **POLICIES AND PROCEDURES RELATED TO EXPOSURE CONTROL**
- **DISABILITY ACCOMMODATIONS**

APPENDIX 1

SAMPLE #1 **MASTER PROBLEM LIST** **#1**

Patient's Initials: *R.G.*
Age: *3-½ months*
Sex: *M*
Date: *2/12/98*

| Problem # | Date Onset | Date Recorded | Problem Active | Date Resolved | Problem Resolved |
|-----------|-----------------|----------------|---|-----------------|----------------------------|
| <i>1</i> | <i>2/10/98</i> | <i>2/12/98</i> | <i>RSV + bronchiolitis ↑ WOB, cough</i> | | |
| <i>2</i> | <i>2/12/98</i> | <i>2/12/98</i> | <i>Petechiae</i> | | |
| <i>3</i> | <i>12/25/97</i> | <i>2/12/98</i> | <i>3 wks coughing</i> | | |
| <i>4</i> | <i>10/25/97</i> | <i>2/12/98</i> | <i>Club Foot</i> | | |
| <i>5</i> | <i>10/25/97</i> | <i>2/12/98</i> | <i>Trisomy 21</i> | | |
| <i>6</i> | <i>10/25/97</i> | <i>2/12/98</i> | <i>Small for age</i> | | |
| <i>7</i> | <i>10/25/97</i> | <i>2/12/98</i> | | <i>10/26/97</i> | <i>Polycythemia</i> |
| <i>8</i> | <i>10/25/97</i> | <i>2/12/98</i> | | <i>11/5/97</i> | <i>Thrombocytopenia</i> |
| <i>9</i> | <i>10/25/97</i> | <i>2/12/98</i> | | <i>10/28/97</i> | <i>Hyperbilirubinemia</i> |
| <i>10</i> | <i>10/25/97</i> | <i>2/12/98</i> | | <i>10/27/97</i> | <i>Meconium Aspiration</i> |

MASTER PROBLEM LIST #2

Patient's Initials: *R.G.*
 Age: *3-½ months*
 Sex: *M*
 Date: *2/12/98*

| Problem # | Date Onset | Date Recorded | Problem Active | Date Resolved | Problem Resolved |
|-----------|------------|----------------|---|---------------|------------------|
| 11 | | <i>2/12/98</i> | <i>Health Maintenance</i> 1. <i>Two-month immunizations received late</i> | | |
| | | | 2. <i>Pet in home</i> 3. <i>No CO detector in home</i> 4. <i>Daycare exposure</i> | | |
| | | | 5. <i>Unsure re: hot water heater temp</i> 6. <i>Second-hand smoke</i> | | |
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SAMPLE
H&P WRITE UP

(The instructor's comments are typed on the right hand side in a cursive font.)

CC:

"His cough is getting worse, he sounds congested, and he's pulling real hard to breathe."

Clear. Nice quote.

HPI:

RG is a 3 ½ month old white male with Down syndrome. His parents are the source of the information and appear very reliable. RG was admitted to the DeVos Children's hospital for treatment of his wheezing, coughing, and increased work of breathing. RG has had a cough for about 2 weeks. In the last 3 days, his father has noticed an escalation of his symptoms including more coughing, wheezing, congestion, low grade fevers, increased WOB and post tussive emesis. Tylenol was given for his fevers for the past two days. RG has also had whitish-yellow nasal discharge and frequent sneezing. RG has one older sibling who is well at this time. This sister had strep throat that was treated and resolved about three weeks ago. RG does attend a daycare facility with his sister in Standale. No diarrhea, no hemataemesis, pt is crying tears and making wet diapers but less than his normal number per day. Pt is taking po formula but has decreased his intake from 4-6 oz per feeding to 2-3 oz every 3-4 hours. Mother has also been giving water between feedings to keep him well hydrated. RG had been smiling for about 2 weeks but has not smiled for the past 2 days.

*Very fine HPI,
clear & logical.*

Pt had been placed on Amoxicillin for questionable bronchitis at the end of December. He Took the meds x5 days and started vomiting, so the mother stopped his antibiotics. His Two-month shots were due in early January but were not administered 2° to his respiratory illness. At this time he was started on Biaxin for 2 weeks but this did not relieve his cough or congestion. RG saw his PCP in the 3rd week of January and received his two-month shots. And last Tuesday, (2 days prior to admission) RG saw his PCP and was found to be RSV+. he was given Cefzil and sent home with his parents who were instructed to go to the hospital if his respirations were greater than 80, if he turned blue, if he was apneic for greater than 20 seconds, or if he demonstrated increased WOB. RG's mother slept in the spare bedroom with him and he was up every 2 hours because of coughing. He also had 3-4 bouts of post tussive emesis during the night after feeding. Pt has had his normal amount of bowel movements with usual consistency. Mother has been using a bulb to suction out nasal secretions for the past two day. The mother reports that RG was sleeping 8 hours or more per night prior to this illness. RG has not turned blue with this illness, and he has never wheezed before. Parents both smoke but always outside and never in the car. Parents do not smell of smoke.

*I think this is
bad policy.*

RG's mother point out that all the things she needed to watch for made her feel hypervigilant and nervous. She had very little sleep the past 2 nights as she was up a lot with RG when he woke up, and then she felt like she had to watch him when he did sleep. Mother had no relief at night because the father recently started a new position at work and is on 3rd shift. Mother recently (3 weeks ago) returned to work after maternity leave and is learning to juggle and balance 2 children and work and home. Because of the above and because of RG's underlying Down diagnosis, mother states that she feels relieved to have him at the hospital. She feels that RG received good care as a neonate and expects him to do well here again.

PMH

1. General Health: RG was born at 39 weeks and suspected to have Down syndrome at birth. He was also born with a club foot on the right. He had thrombocytopenia and jaundice at birth and both resolved (will discuss further under neonatal period). Other than this persistent cough and congestion, RG had been well since discharge from the hospital.
2. Childhood Illness: No strep throat, no scarlet fever, no chicken pox, no OM diagnosed. No hx of pneumonia, measles, mumps, rubella, whooping cough, rheumatic fever, or polio.
3. Allergies: NKDA. Mother reports that RG vomited after 5 days of amoxicillin but this may have been post tussive emesis.
4. Accidents/Injuries: None.
5. Hospitalizations: Other than his perinatal hospital stay, RG has not been hospitalized.
6. Surgery: Circumcision.
7. Medication: Tylenol for fever with this illness. Mother daily gives RG an OTC vitamin called trivisol. He received 3 doses of Cefzil before admission. ?eye drops.

PREGNANCY

1. This pregnancy was desired and planned according to the parents. Birth control was stopped in order to conceive.
2. Prenatal care: Mother saw her OB at about 7-8 weeks of gestation. She started taking a prenatal vitamin at about 5 weeks gestation. Then she saw Dr. Marks monthly until about 8 months along. Her visits then became weekly. Prenatal testing revealed a neg VDRL, rubella immune, Hep B neg and blood type O pos. She had an ultrasound at about 22 weeks gestation to determine her due date. At this time it was noted that the fetus had a right club foot. No other problems were noted. Because mother was over 35 years of age at time of conception, an amniocentesis was offered to her. She did not undergo this procedure because she would not abort even if there was an anomaly present. Plus, she felt that finding out something was wrong would just make her more worried for a longer time period.
3. The pregnancy was a good one without negative effects upon the family. Mother felt well throughout most of the pregnancy. She was able to continue working up until* the time of RG's birth.
4. Mother reports no accidents or injuries during pregnancy. No HTN, bleeding, no rashes, no fever, and no gestational diabetes. She did take an antibiotic (unsure of name) at about the time of conception for an ear infection. Her total weight gain was 36 pounds. There was exposure to Xrays during the pregnancy. No alcohol ingestion. Positive for smoking less than 1/2 pack per day.
5. Labor: Mother was scheduled for a C-section as she had one with her first child due to cephalo-pelvic disproportion. At 38 weeks of gestation, the mother went into labor. Her water did not break, but she was 80% effaced and dilated to 1. She labored from 5:30 p.m. until 2:30 a.m. in an attempted VBAC. She failed to progress, then evidence of meconium aspiration and fetal distress (decels and unreassuring FHR) made a c-section mandatory. A spinal was administered and RG was delivered via C-section at Butterworth. A tubal Ligation was performed with the C-section.
6. RG was born at 38 weeks gestation and was only 4# 4 oz (2207 gm). His apgars were five at one minute, and seven at five minutes.
7. Neonatal period: RG was small for gestational age. He had aspirated meconium and required O2 via nasal canula for 2 days. He had a right sided club foot (talipes equinovarus) which required casting and ongoing evaluation by Dr. Maples. He had suspected Trisomy 21 due to his physical features and low birth weight. He had an elevated indirect bilirubin (18.5) and required 3 days of phototherapy (11.1). He also had polycythemia and thrombocytopenia (56,000). A bone marrow aspiration was performed and found to be essentially normal. The thrombocytopenia was thought to be an allo-immune problem, and RF received 2 plt transfusions with adequate results. He was followed in the Peds Hem/Onc Clinic for this neonatal allo-immune thrombocytopenia. He received one partial exchange transfusion for a hct of 72%. After the exchange, his hct was found to be in the 60-65% range. An echo revealed no cardiac pathology including no VSD or AV canal defects. Mother attempted to breast feed RG but found him to be a "sloppy eater". He did

These weights aren't the same.

not latch on well due to hypotonia and poor suck reflex. Mother pumped her breasts for one month and tried multiple times to breast feed. RG was taking the bottle well and never was successful as a breast feeder. Mother was “bummed” about this, but eventually quit pumping because of the hassle of pumping, and the time and work of caring for a special needs newborn and his 3-year old sibling.

8. **Bonding:** Mother reports that she spent as much time as she could at the hospital but was also convalescing from her c-section. RG stayed 15 days in the hospital and mother stayed with him most of the time. Father kept things going at home and did not have as much of an opportunity to bond as mother. Mother felt devastated by the news of RG’s trisomy 21 and cried at the hospital. Dad cried at home with Abby. Both parents fell in love with RG immediately despite his problems.
9. **Adjustment for family:** Mother’s grandmother died about 5 months before RG’s birth, and then father’s dad died about 3 months before RG was born. Both of these events were sad and stressful for this family. Mother felt nervous at first to take RG home because he was so small and had so many problems at birth. She reports that “everything cam back quickly” and she was soon comfortable in her role as a new mom again. She found it to be a relief to have him home and not having to drive back and forth to the hospital. She also reports that she looked around the PICU and realized how fortunate they were compared to other families with children much sicker than RG. After RG came home, he had multiple appointments with specialists to follow up post hospitalization. Mother states that this turned out to be the most taxing part of the at-home newborn period.

Great pregnancy and delivery section! Deserves a “6”.

HEALTH MAINTENANCE

1. **PCP:** Dr. Kelley, a pediatrician in GR.
2. **Immunization record:** Pt’s immunizations are up to date. He received Hep B #1 at birth and received his 2 month shots (Hep B#2, DPT, Hib, IM polio) about 2 weeks late 2° to a URI.
3. **Nutritional assessment:** Before this illness, RG was up to about 4-6 oz of Enfamil with FE every 3-4 hours. With this illness, his po intake dropped off to about 2-3 oz every 3 hours.
4. **Safety measures:** Parents always wear seat belts. RF rides in an approved car seat that is rear facing and properly buckled into the back seat of the car. There are no guns in the home. Mother unsure of H2O temperature setting and thinks it may be too high. She will check this out. Parents do not think either lead paint or lead pipes are present in the home because the home is fairly new. There are multiple working smoke detectors in the home and no CO detector present. There is not smoking in the home or the car. There is a pet in the home. Before this illness, RG had just started sleeping 8-10 or more hours per night generally from 8:30 p.m. to 6:00 a.m. He “cat naps” during the day for just 30-45 minutes.

*Do parents wear seatbelts?
Where are the drugs and chemicals kept?
Fire extinguisher?
Guns at home?
Do they read to him?*

GROWTH AND DEVELOPMENT

1. **Development:** Present-RG is able to pick his head up with support only, and is still quite jerky. He is quite hypotonic. Head lag is present when pulled to a sitting position. Stepping in not present. He is occasionally pulling his hand to midline in an attempt to suck his thumb, but he prefers his pacifier. His head is flat on the right side, so his parents do neck exercises and use a rolled towel to encourage him to lay on his left side. He responds to spoken voice and moves his eyes and head appropriately. He demonstrates the grasp reflex and Moro reflex. He does not roll over. He does make some cooing noises. He has been smiling for about 2 weeks prior to this illness and enjoys watching faces. His development is somewhat slowed, but his parents are encouraged by his smiling and response to them.
2. **Early Development:** Because of his trisomy 21, RG is hypotonic but does move all extremities very well and symmetrically. He had difficulties with feeding early on probably due to his hypotonia. Mother reports that RG used his jaw too much when feeding. The had to push on

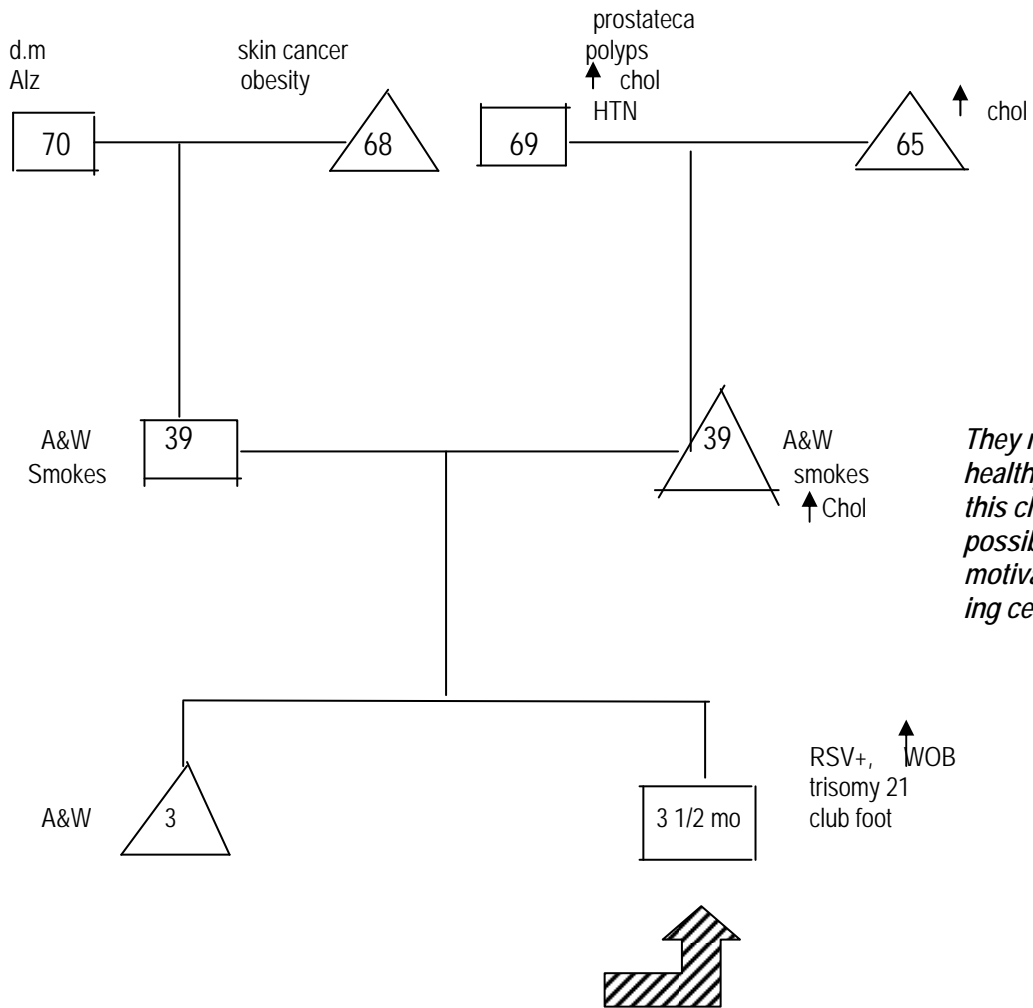
his jaw when giving him a bottle, and now RG feeds much better.

3. Behavioral habits: sucks pacifier.
4. Description of child: Father says "He is a good baby and only cries when he is wet or hungry." Mother states, "Reed is such a good baby and loving. He is a little trooper, been through a lot, and he is coming out with a good personality."
5. Relationships with family: Paternal grandmother is very fond of RG and serves as a back-up daycare person. Older sister is great with RG. Initially, father was more "hands off" because mother was home, and he was adjusting to a new 3rd shift job. Now that mother is back to work full-time, Dad had been helping out and is much more comfortable with caring for both children.
6. Discipline: Not applicable at this age.
7. Daily routine: Mother has returned to work just in the past 3 weeks. RG is in bed by 8:30 p.m. and up by 7:00 p.m. at the latest. He attends Sunshine Daycare in Standale with his 3-year old sister. He takes one short nap at his school. Every Friday, his teacher from Ken-O-Sha comes to the home from 8:30 – 9:30 a.m. Once monthly, his teacher, a speech therapist, OT, PT, social worker and psychologist all meet with RG and his parents. When RG is 2 years old, he will attend Ken-O-Sha daily. His parents work with him daily doing neck exercises and ROM exercises. RG wear a brace on his RLE to straighten his club foot and he wears it 24 hours around the clock.
8. Bowel/Bladder: Not applicable.

FAMILY HX

□ = Male

△ = Female



They need to be healthy to take care of this child as long as possible. Can provide motivation for smoking cessation, diet, etc.

Risk diseases in family hx: Diabetes, HTN, cancers, allergies, mental illness.
 No previous hx of heart disease, epilepsy, birth defects, bleeding disorders, kidney disease, or TB.

SOCIAL HX

1. Patient lives with his parents and 1 sister. Mother and father have been married for 8 years. The paternal grandmother lives in Cascade and is very supportive and helpful with child care. Maternal grandparents are also in the area and very close to and supportive of RG's family. With full time jobs and family, RG's parents do not have a lot of extra time for friendships. RG's mother is especially close to her one sister. They also attend a Protestant church in The area x 3 years, but do not know a lot of families. They started going to church because The maternal sister and her family attend there and recommended it to the family.
2. Employment: Mother works as an assistant vice president at NBD. Father just recently started a new position as a supervisor on third shift at a local tool and die company. He is actually looking for a new job because he is not adjusting well to 3rd shift. He prefers to be back on days and sleeping at night.
3. Housing/sleeping arrangements: The family owns a house in Standale. The home was built in 1974, so there is little concern about lead exposure. The family wants to move closer to both families. Paternal grandmother lives in the Cascade area, and they would like to live there so the children can go to Forest Hills schools. Their current home is 3 bedrooms with each child have their own room. There is also a spare bed in RG's room.
4. Finances: Finances are adequate to meet the family's needs and medical care. The major expense the family incurs is child care at \$850 per month.
5. Medical Insurance: Priority Health through NBD.

WOW!

ROS

1. Skin: No rashes, hives, bruises, changes in texture or pigmentation.
2. Eyes: Positive for drainage and redness and excessive tearing with this illness and drops were prescribed for pink eye. Eyes move together and no eye exam has been done.
3. Ears, nose, throat: Cold with cough and nasal discharge have been present since about Christmas. RG passes his hearing test that was administered in the NICU. No known ear Infection or drainage, no nose bleeds, and no streptococcal infections.
4. Lymphatic: no lumps, bumps, goiters, no "swollen glands".
5. Dental: No teeth erupted.
6. Cardiorespiratory: Cough and wheezing with current illness, no heart murmurs, no chest pain, no cyanosis of lips of fingernails. Activity level and easy fatigability difficult to assess.
7. GI: Post tussive emesis and loose stools with this illness. No jaundice, and no constipation or signs of GI pain noted. Pt is not bowel trained.
8. GU: No dysuria known, no frequency, no polyuria, no hematuria, adequate stream noted (hit mother with his good stream). Not bladder trained.
9. CNS: Hypotonia noted but MAEW and symmetrical, no seizures or convulsions. Difficulty to assess for HA, dizziness, tingling, and numbness.
10. Musculoskeletal: No redness, swelling, unusual limitation of movement, no muscle cramping pain known.
11. Endocrine: Good growth pattern, no excessive thirst, no unusual weight loss or gain, no unusual sensitivity to heat or cold.
12. General: Slight fever with his illness (one degree elevation at most), no unusual fatigue, lethargy or weakness noted.

PHYSICAL EXAM

General: Pt is alert, cries periodically. He is crying tears. Pt has brace in place on lower right leg. Pt is small for his age and demonstrates physical signs of Down syndrome. Hands alternate between clenched and open position. Pt is consolable with pacifier or father's touch.

Vitals: T=37.5 HR=168 RR=68 Sat=95% on .4L Cap refill < 2 seconds.

Growth: Wt=4.66 kg Ht 23 in Head circ=37.5 cm.

Integument: Pt is pale with mottling of skin noted. Skin is cool and dry. Easy mobility and

Elastic turgor. No tenting and no excess sweating. No edema. Nails are pale pink and no clubbing is noted. No lesions, bruises, rashes observed. Small amount of soft downy blond hair. Few scattered petechiae noted on forehead.

Head: No scalp lesions noted, flat occiput (bradycephaly) especially on right posteriolateral side of head. Symmetrical facies, open and flat anterior fontanelle. Flat facial profile noted with flat nasal bridge. Small retroplaced chin.

Eyes: Red reflexes bilaterally intact, PERRL, EOMI. Sclera white, conjunctiva pink and moist. No exudate. No lid lag or ptosis noted. No anisocoria. Visual acuity not tested with Snellen chart. Slight epicanthal folds present with upslanting palpebral fissures. Questionable Brushfield spots noted on iris.

Ears: External ear nontender, no lesions noted. Ears are small and lowset, posteriorly rotated. TM's bilaterally not visible secondary to very small canals. Did not attempt pneumatic otoscopy.

Nose/Sinuses: Clear white nasal discharge noted, nares patent, unable to evaluate sinus tenderness. No nasal flaring noted.

Mouth/Pharynx: Tongue not enlarged or protruding from mouth. Mucous membranes moist, no oral lesions noted. Lips pink and moist. Gums pink and without bleeding, lesions. Oropharynx moist, nonerythematous and without exudate, uvula and palate elevate with crying.

Neck/Lymph Nodes: Supple and mobile neck, no lymphadenopathy noted in preauricular, postauricular, cervical, submental, submandibular, and supraclavicular areas. No lumps, bumps or goiter palpated in neck. Trachea midline. Slightly excess posterior neck skin noted.

Chest: No chest deformities. Moderate substernal and intercostal retractions present. Coarse breath sounds bilaterally with occasional expiratory wheeze. No crackles or rubs bilaterally. Anterior thorax resonant to percussion with dullness in cardiac area.

Stridor?

Cardiovascular: RR, somewhat tachy, no murmurs or rubs or gallops auscultated. No varicosities or JVD noted. PMI dime sized at 5th intercostal space in MCL, palpable and visible. No thrills or sternal lift noted. Pulses 2+ and equal bilaterally, palpated at brachial, radial and femoral areas.

Abdomen: Somewhat protuberant abdomen. No masses or hernias, soft, nontender with active bowel sounds. Spleen nonpalpable. Liver palpable 1 cm below right costal margin. Span not percussed.

Genitalia: Tanner stage I. Normal male genitalia. Circumcised. Both testes descended.

Musculoskeletal: Barlow and Ortalani negative. Talipes equinovarus of right foot resolving well. Hypotonia of all extremities – somewhat “floppy” for age. No simian crease identified bilaterally. Short metacarpals and phalanges. Thumb is shortened and thick at distal end. No incurving of 5th fingers and no gap noted between first and second toes. Spine intact, no deficits.

Neurological: Pt alert and orient to voice and bright light. Optic discs not visualized.

No tongue fasciculations at rest, and tongue does not protrude from mouth. Symmetrical facies. Hearing intact. Palatal elevation upon phonation. Hypotonic. Attempted to assess deep tendon reflexes and were not elicited. Babinski performed and toes are upgoing. Pt does respond to nasal suctioning with grimacing and attempts to move head away. Suck reflex, frasp reflex and Moro reflex all present. No tremor noted.

Labs: Na=141 K=5.1 Chlor=98 Bicerb=31.9
WBC=8.98 Hgb=13.7 Hct=41.3 MCV= 92.6 Platelets 314, 000

Differential:

42% Platelet normal
10% RBC morph normal
34%
12%
2%

RSV+

CXR: hyperinflation, bilateral parabranchial thickening; findings maybe 2° to a viral or other inflammatory process.

ASSESSMENT

1. RSV+ bronchillitis with respiratory distress: This is a 3-1/2 month old Down syndrome male diagnosed with RSV 2 days ago in the outpatient setting. He is admitted today for onset of respiratory distress most likely secondary to the RSV as evidenced by increased work of breathing. RSV with respiratory distress is supported by a positive RSV test, the season of the year, his age, his decreased appetite, clear nasal discharge, temperature instability, subcostal and substernal retractions, decreased O2 sats on room air, and tachypnea. This is also supported by his CXR findings of hyperinflation and a diffuse patchy infiltrate. This pt could also have some component of reactive airway disease and this is supported by his cough, expiratory wheezes, exposure to second hand smoke, presence of a pet in the home, his respiratory distress and O2 requirement. This is not supported by his lack of a family hx of asthma, and the lack of a hx of wheezing in this child. A third possible cause of his fevers and respiratory distress could be an underlying resistant bacteria causing a pneumonia. This is supported by his partial treatment with antibiotics in the recent past, his cough, his fever, his respiratory distress and O2 requirement as well as his hypotonia and decreased ability to cough and clear secretions. Pneumonia is not supported by his CR findings lacking a consolidation, his normal WBC, and his lack of an ill appearance. Cystic fibrosis could also be considered and is suggested by his race, his cough, his low serum chloride, and his respiratory distress. This is not supported, however, by his lack of family hx, lack of GI sx, and the remainder of his electrolytes which do not demonstrate a hyponatremia plus hyponatremic metabolic acidosis.
2. F/E/N: Pt appears well hydrated and this is supported by crying tears, brisk cap refill, still making wet diapers, and moist mucous membranes. Vomiting is reportedly post tussive and contains mucous rather than formula. His K is somewhat elevated and the lab was called and reported no hemolysis present.
3. Presence of petechiae: this could be due to increased straining with coughing but is of concern because of the hx of thrombocytopenia at birth.

PLAN

1. Respiratory distress: admit to 7 center under Dr. Lake. Albuterol nebs q4-6 hours prn. Continuous pulse ox to monitor sats. O2 as needed to keep saats >92%. Suction nasal secretions prn. Tylenol for fevers >38°C prn.
2. F/E/N: No IV necessary for hydration at this time. Would consider if urine output decreases or other signs of dehydration are evident. Will repeat fluid profile in AM to monitor hydration status and K level.
3. Petechiae: A CBC revealed a normal plt count and normal plt morphology. If petechiae increase in number and distribution, a repeat CBC will be in order.

ADDITIONAL INFORMATION

Because I have already seen plenty of RSV on this rotation, I thought it might be worthwhile to investigate the trisomy 21 pt's presentation and findings at birth. I will attempt to integrate and understand his major difficulties in the postnatal period.

1. Small for gestational age: this occurs in children with Down syndrome. Chromosomal defects cause symmetrical growth retardation via interference with hyperplasia, or increasing cell number. He also was exposed to nicotine in utero which is known to be a vasoconstrictor and cause limitations in uterine blood flow. This results in decreased O2 delivery and decreased nutrient delivery to the fetus. So his small size could also have been impacted by this in utero exposure, a cause of asymmetric growth retardation due to aberrations in hypertrophy of tissues.
2. Apgars of 5 and 7: could be caused by multiple factors. This could be due to his hypotonia of trisomy 21 (impacting muscle tone), his meconium aspiration (impacting his respirations), his polycythemia (impacting his skin color) to name a few.
3. Meconium aspiration: RG required O2 for 2 days. Meconium aspiration occurs in situations of hypoxia and fetal distress. This often occurs in post term infants. In this case, it was most likely due to RG being small for gestational age and placental insufficiency causing hypoxia.
4. Club foot: Positional club foot is caused by compression of a normal foot by the uterine wall. Club foot is also associated with multiple neuromuscular disorders. And a third cause of this deformity is a congenital, isolated abnormality. I did not find reference to a relationship between trisomy 21 and talipes equinovarus. So this occurrence in RG is most likely a congenital or positional abnormality.
5. Polycythemia and indirect hyperbilirubinemia: Polycythemia is seen in infants with trisomy 21 and also with chronic intrauterine hypoxia – maybe impacted by nicotine exposure? An exchange transfusion is the treatment and involves phlebotomy and replacement of volume with saline. Hyperbilirubinemia may have been secondary to the increased production of heme due to his polycythemia. The hyperbilirubinemia was treated with 3 days of phototherapy.

6. Thrombocytopenia: BM was done and RG was found to have NAT (neonatal allo-immune thrombocytopenia). This means that RG had antigens on his platelets (from dad) that mother lacked. Therefore, mother's antibodies crossed the placenta and bound his platelets, resulting in thrombocytopenia. IVIFF and 2 platelet transfusions were adequate to raise RGs platelets to a safe level.
7. Suspected Down Syndrome: due to his physical features, trisomy 21 was suspected. This was confirmed by karyotype.

(student signature) CHM₃

Bibliography

Nelson's Textbook of Pediatrics, 14th edition, Behrman, 1992.

NMS Pediatrics, 3rd edition, Paul H. Dworkin, 1996.

Nelson Essentials of Pediatrics, 2nd edition, Behrman, 1994.

Patient weight, height and head circumference are plotted on a growth chart.

Sample not available for this manual.

(Instructor's final comments to the previous sample write up)

A great discussion section; thorough, well-written, clear, and thoughtful. Though it's picky, let me comment on two words you use:

- 1) In your discussion of club foot, you use the word "congenital" as if it were a diagnosis. Congenital simply means "present at birth". Were you searching for idiopathic"?*
- 2) You use the word "impacting" when you probably mean "affecting". Remember "affect" is a verb; "impact" is a noun. You can affect something, but you can't impact anything. A verb (affect) can describe an action verb (affecting) but a noun can't become a verb. Social workers (sorry) and hospital administrators are the world's worst at this.*

SAMPE #2

H&P WRITE-UP

(Director's comments are typed in red and correspond to highlighted sections)

Pediatric Clerkship: Inpatient H&P

Master Problem List

Superb! – Very detailed & complete

Age: 13

Sex: M

Date: 12/01/20XX

| Problem #1 | Date of Onset | Date Recorded | Problem Active | Date Resolved | Problem Resolved |
|------------------------|---------------|---------------|--|--------------------------------------|-------------------|
| 1 | 12/01/2004 | 12/01/2004 | Moderate dehydration | | |
| 2 | 11/30/2004 | 12/01/2004 | Vomiting and diarrhea | | |
| Stable active problems | | | | | |
| 3 | 11/2004 | 12/01/2004 | Anxiety | | |
| 4 | 01/2004 | 12/01/2004 | Cardiomyopathy | | |
| 5 | 01/2004 | 12/01/2004 | Osteoporosis | | |
| | 2003 | 12/01/2004 | Wheelchair bound | | |
| | | 12/01/2004 | Significantly decreased lung function (65% expected) | | |
| | 1998 | 12/01/2004 | Duchenne muscular dystrophy | | |
| Resolved problems | | | | | |
| | 01/2004 | 12/01/2004 | | | Crushed vertebrae |
| | 2000 | 12/01/2004 | | 01/2004 (Dx changed to osteoporosis) | |
| | | 12/01/2004 | | | Pneumonia x3 |
| Health maintenance | | | | | |
| | | 12/01/2004 | Vaccinations up to date | | |
| | | 12/01/2004 | BMI 95 th percentile | | |
| | | 12/01/2004 | Concerns about possible abuse by father | | |

Chief Complaint

GC is a 13 year old young man with Duchenne's muscular dystrophy who presented with a two day history of nausea, vomiting, and dehydration. Source of the history was the patient's mother and the patient himself who were both knowledgeable and reliable.

History of Present Illness

Try to use a specific date or "the day prior to admission"

The patient had previously been feeling well. On **Thursday** he had a flu shot and a pneumonia shot. When he woke up on Friday he had decreased energy, was not feeling well and was unable to eat or drink anything. However, he wanted very badly to go to a church event and sleepover that night to which his mother allowed him to go. Throughout Friday and into Friday night, his mother said that he was unable to keep anything down. That evening, she attempted to give him fluids (Sprite) every 20 mins, but he vomited those up as well. He also had 2 loose stools over this time, which she said "smelled sick." His mother said that she was "up all night" with him. When he woke in the morning, the mother said that "he was barely saying a word." She called the physician's office and the physician advised her to bring GC to his office. GC did not believe that he could make the drive because of the extreme nausea. It was at this time that his mother made the decision to call an ambulance and he was taken to the emergency department.

Has he had any contact with fever, vomiting?

GC vomited for 2 days. The mother said that she had no idea how many times he **vomited** because it was "too many to count." He would vomit up to every 20 mins when his mother was attempting to give him fluids. He was unable to keep anything down. The vomit was the appearance of what had previously been ingested. There was no blood, coffee ground particles, or green appearance to the vomit. The vomiting could be forceful, but was not projectile. He also had occasional retching and one incidence of throwing up mucus.

The patient has a history of Duchenne muscular dystrophy (DMD). He also has a recent diagnosis of cardiomyopathy. He has not had any known sick contacts. He is home schooled by his mother and lives at home with his mother and sister. He has had no known contact with bad food, knows of no one who has been sick from any food that he has eaten. No recent history of travel. He has had increased fatigue and decreased appetite over the last couple days, and his mother said that he felt hot today. However, he has had no chills or sweats. He also noticed that he had a sore throat. No rhinorrhea, no congestion. Has had increased SOB over the last 2 days. He has not had a cough. He has severely decreased lung function as a result of musculoskeletal weakness from his DMD. He also had some awareness of his heartbeat yesterday when he was at rest. GI symptoms were remarkable for nausea, vomiting and two loose stools. No abdominal pain. Has not urinated since Thursday morning. No pain, no urgency, no increased frequency, no change in color of urine prior to onset of most recent illness. He had a HA today and felt dizzy yesterday morning. His mother said that he also had decreased alertness and responsiveness that worsened over the course of last night into today.

Mother was not overly concerned about GC's condition. She believes that his condition is most likely due to dehydration. Her main concern is to get him better. She did not think that a brief hospitalization would have a large impact on their lives. However, she was concerned about the multitude of pets at home and that they would need care.

Past Medical History *Excellent Summary*

Illnesses and injuries:

1. Duchenne muscular dystrophy: diagnosed at age four.
2. Cardiomyopathy: diagnosed last January by an echo done at Children's Hospital in Columbus, Ohio. At that time he was put on lisinopril and no further changes have been observed on echocardiography.
3. Osteoporosis: was diagnosed with osteopenia at age six. In January, 2004 he was found to have a crushed vertebrae and the diagnosis was switched to osteoporosis.
4. **Impaired lung function:** due to musculoskeletal weakness from DMD. *Has he had recent pulmonary function tests?*
5. Pneumonia: **has had pneumonia 3 times from which he has fully recovered** *When was last hospitalization?*
6. Depression: was diagnosed last month
7. No renal or kidney disorders and renal function is good.

Surgical history

Muscle biopsy to diagnose Duchenne muscular dystrophy.

Mother's obstetrical and birth history

The pregnancy was not planned but parents were happy with the news. Mom sought prenatal care at 8 weeks gestation and was seen regularly. She did not have GBS and denied testing positive ever for syphilis, hepatitis, gonorrhea, or Chlamydia. Mom denied ever being tested for HIV. Mother denies any history of sexually transmitted diseases, including Herpes. She was not on any medications during her pregnancy and denied alcohol, cigarette smoking or illicit drug use. During the third trimester, mother reported she was very sick with vomiting and also had protein in her urine which she believes was from his "muscles breaking down." Mom stated her blood pressure was slightly elevated throughout the pregnancy. She delivered on her due date

after 15 hours of labor with rupture of membranes for 2 hours by normal spontaneous vaginal delivery. Birth weight was 7 lb 6 oz and birth length was 20 inches. She did not breast feed him but chose Similac with Fe. He went home at two days of age with no postnatal complications. Mom denied any problems with jaundice.

Growth and development

1. According to mother has been "mentally accelerated." Although in the 6th grade, he reads at a 10th grade level. He is performing at or above the expected level in his other subjects.
2. Met or exceeded all non-physical milestones as a young child.
3. Was delayed in meeting his physical milestones as a result of his DMD – sat at 8 months, cruised at 18 months, walked at 22 months, and toilet trained at 4 years.
4. **Has always been overweight and shorter in height.** Mom stated that they checked for thyroid problems but none were found. "He has always been on the bottom curve with his height." *Any interventions tried for his weight? This has implications as he is wheelchair bound.*

Allergies

No known medical allergies. Phenergan causes restlessness, but no hives or rashes.

Medications

1. Prednisone 30 mg po daily
2. Lisinopril 5 mg po daily
3. Wellbutrin SR 100 mg po daily
4. Zoloft (new medication, mother unsure of dose)
5. Fosamax 35 mg per week taken on Fridays. (missed this Friday's dose)
6. Amino acid supplements for DMD (approved by physician and necessary for his health): **L-arginine, glutamine, creatinine, amino acid blend, vitamin E, selenium, lecithin, and flaxseed oil.** *Great – Herbal & alternative medicines are important to ask about!*

Health Maintenance

1. Screening tests: Not asked
2. Exposures:
 - a. No tobacco exposure.
 - b. **Possible abuse by father. Patient and patient's mother both expressed concerns about emotional abuse by father and also about father's violent outbursts toward others in presence of the patient and his sister. Mother also expressed concerns about potential drug and alcohol abuse by the father. The mother requested a social work consult to help deal with these issues.** *Great History – They Obviously Trusted You.*
 - c. 9 pets in house – cats and dogs.
3. Safety measures: Everyone in car uses seatbelts. GC has a special set of belts for him and his wheelchair. No guns in the house. Smoke detectors in the house, but no carbon monoxide detector. No wood burning stove.
4. Exercise: Participates in Eagles which is a sports team for kids in wheelchairs.
5. Sleep: Not asked
6. Diet: Mother cooks at home. On a decreased sodium diet because of prednisone. Is very vigilant about diet and self-regulates. Mother feels that diet is very healthy with "lots of fruits and vegetables."
7. Immunizations: **Up to date per mother.** Flu and pneumonia shots given on Thursday prior to admissions. *Remember to check MCIR or with PCP Office*
8. Tobacco/alcohol/substance abuse: none with patient

Social History

OUTSTANDING!

GC lives with his mother and 8 year-old sister. There are 9 pets in the house – 3 of which are his. His parents are divorced. His father was only recently allowed unsupervised visits with GC and his sister. Prior to this the father could not visit the children without a monitor. This occurred after the father chased GC, his mother, and sister into a corner of a grocery store parking lot with his car. As described previously, both GC and his mother express concerns over the father's erratic, violent, and emotionally abusive behavior. His father is a truck driver and his mother is a homemaker. He and his sister are home schooled by his mother. He is in 6th grade and likes school very much. He enjoys most of his classes but likes reading the most. He enjoys fantasy-type novels and has read the entire Harry Potter series. He also participates in extracurricular activities at a local school. He is very involved in his church and community activities. He also is on the Eagles, a sports team for children in wheelchairs.

Mother reports that the severity of GC's illnesses has impacted their lives significantly in the past. His medical needs are covered by State Medicaid as well as Children's Special Health Care Services. She has to pay very little out of pocket but is unable to work outside the home due to his frequent physician visits and hospitalizations. GC's physicians include a cardiologist, neurologist, pulmonologist,

psychiatrist, physiatrist, and his primary care doctor. Despite his ongoing medical issues, Mother states the family is very upbeat and supportive of each other. Mother's family is within a one hour distance and are a source of comfort for her as well as her church. Mother states GC's physicians provide wonderful care but need to communicate with each other a bit more. She stated that "all the nurses at the hospital know GC very well."

Family History

1. Depression and strokes in numerous members on the maternal side.
2. Maternal grandmother died of an astrocytoma at 55. Maternal grandfather has scoliosis and prostate CA but is still alive in his 70's. Paternal grandmother died of pancreatic cancer at 50. Paternal grandfather is healthy with no known medical conditions.
3. Mother has HTN and severe arthritis with joint destruction, which is similar to, but not definitively rheumatoid arthritis. Mother is worried the father may have some sort of mental illness and mother suspects drug or other substance abuse.
4. 8 year old sister healthy with no known medical problems.

No family history of DM, blood or bleeding disorders, asthma or lung conditions or cardiac problems such as myocardial infarctions, heart failure or rhythm problems.

ROS

Constitutional: Decreased energy, fatigue, decreased appetite. Denies fever, chills, or sweats.

Skin: Target rash on arm where Pneumovax shot was given. Denies bruising or hives. *This sounds like a specific diagnosis-use*

Eyes: Cataracts which are asymptomatic. No blurred vision, loss of vision, tearing, itchiness or vision changes. *Mom's words*

Ears: No hearing problems, pain, or ringing.

Nose: No discharge, congestion, or itching.

Throat: Has braces. Complains of sore throat since vomiting began. No difficulty with swallowing.

Neck: No pain or lymph node swelling.

Respiratory: Shortness of breath for 2 days. Denies cough or wheezing. Has felt very tired but denies work of breathing with usual activities.

Cardiac: Noted his heartbeat yesterday but denies chest pain or irregular beats.

GI: See HPI – history of vomiting multiple times over 2 days with nausea, occasional retching, and 2 loose stools. Denies constipation, jaundice, or blood in stools or emesis.

Genitourinary: Has urinated only once in 24 hours. Denies dysuria, urgency, frequency, or change in urine color.

Central Nervous System: Recently diagnosed with anxiety which has resolved with Zoloft. No numbness, tingling, paralysis, tremors or seizures. Rarely has headaches but has had a mild headache in the past 2 days.

Musculoskeletal: Duchenne muscular dystrophy – is in a wheelchair, however, has good trunk strength. Is able to feed himself, but needs assistance with other activities such as bathing, dressing, and moving himself. No myalgias, arthralgias, joint swelling, joint stiffness, bone pain.

Endocrine: Not asked. *Would still ask if cold intolerant, might comment about short stature, overweight here and if any recent weight gain*

Physical Exam

Vital signs

Temp: 37.8 oral

Pulse: 100 regular

Resp: 20/min

O2 Sat: 98% on room air

BP: 110/74 *Always check BP% in kids using age, height and gender specific chart*

Weight: 43.6 kb (40th percentile)

Height: 136 cm (<5th percentile)

BMI: 23.6 (95th percentile)

General appearance

Patient was sleeping soundly in ED, but by time he was moved upstairs to a room and was done taking the history, became very alert and talkative. At this point, he was friendly and fully oriented. He was an overweight, well-groomed teenager, sitting comfortably in bed. He did not appear to be in distress, and was very cooperative with the exam. He was accompanied by his mother and sister.

Integument:

Fair complexion. Erythematous target region on left bicep measuring about 3 inches in diameter with a central approximately 1 inch diameter area of marked erythema and minor swelling. No other visible lesions. Skin was warm, dry, and smooth with good turgor. Nails were pink and smooth. Hair was very light blond and long with no thinning or balding. *Any Stria, "Buffalo Hump", Acanthosis, Petechia, or Ecchymosis?*

Head:

Skull symmetrical. No scalp lesions or tenderness. Face symmetrical and without deformity. Very round face that may represent mild moon facies.

Eyes:

Lids showed no ptosis or lag. Conjunctiva pink and moist. Sclera white. PERRLA. EOM's intact and without nystagmus. Fundoscopic: red reflex intact. **Attempted, but was unable to visualize internal architecture due to lack of expertise. *Honest - glad you tried!***

Ears:

External ear without lesions or tenderness. No difficulty discerning conversation. TM pearly gray and landmarks visible with sharp cone of light.

Nose:

Nose straight, nares patent. No discharge.

Mouth and throat:

Foul breath odor. Lips, gingival, tongue, oropharynx pink and moist with no lesions. Patient wearing braces.

Neck:

Neck supple with full range of motion. No masses. Trachea midline. Thyroid non-tender, soft, and not enlarged. No cervical lymphadenopathy.

Respiratory:

Symmetrical expansion during quiet respiration with no use of accessory muscles. Clear to auscultation bilaterally. No crackles, wheezes, rubs.

CV:

Rate and rhythm regular. S1, S2 present and distinct. No murmur or gallops. Capillary refill < 1 second. Radial, pedal and posterior tibial pulses strong and equal bilaterally.

Gastrointestinal:

Bowel sounds present. Obese abdomen. Soft, nontender to deep and superficial palpation. Liver, spleen, and kidneys nonpalpable. No masses or hernias.

Genital:

Deferred. However, patient expressed a need to urinate during abdominal exam and relieved himself of a large volume of concentrated urine during a break from the physical exam. ***Next time examine this area w/resident to document pubertal status***

Musculoskeletal:

No deformities, cyanosis, clubbing, or edema. ***How is his muscle bulk? Any scoliosis as he is at high risk being wheelchair bound and with low tone?***

Neurologic:

1. Mental Status: Mood and affect were appropriate. Very friendly and eager to strike up conversation. Judgment and insight were intact. Oriented x3. Recent and remote memory was intact. No fidgeting or other unusual motor activity. Speech was well organized. Thoughts were relevant to problem with no disturbance. No indication of abnormal perceptions or somatic preoccupations. Cognitive functions with no apparent impairment.
2. Cranial nerves: CN 1: not tested. CN 2: visual acuity intact. CN 3, 4, 6: PERRL, EOMs intact. CN 5: facial sensation normal and equal bilaterally in response to touch. CN 7: Could raise eyebrows, keep eyes closed against resistance, bare teeth. CN 8: Could hear rubbing fingers. CN 9, 10: said "ah", uvula raised in midline. CN 11: Could shrug shoulders and push cheek against resistance. CN 12: tongue protrudes in midline.
3. Sensory exam: sensation intact to touch in all four extremities.
4. Motor: No atrophy, fasciculations or tremor. Decreased tone in extremities. Strength 3/5 for flexion and extension in all four extremities.
5. Reflexes: Triceps, biceps, and brachioradialis were unable to be elicited. Decreased 1+ patellar and Achilles reflexes.
6. Coordination and gait: not tested because of patient's lack of mobility.

Diagnostic studies

BUN, CRE are down probably due to his decrease in muscle mass

BMP: Sodium was low at 131, potassium 3.6, chloride low at 97, bicarb 22, **BUN low at 3, creatinine low at 0.28, glucose 106, calcium 8.8.**
CBC: WBC elevated at 23, 150, hemoglobin 14.8, hematocrit 42.9, platelets 388,000, RBC 502, MCV 85.5, MCH 29.4, MCHC 34.4, RDW 13.9, neutrophils high at 20, lymphocytes low at 0.91, monocytes high at 2.05
Blood culture: pending

Assessment

Be Specific about type of fluid

1. Vomiting and dehydration: Mother attempted oral rehydration with Sprite every 20 minutes which failed due to GC's inability to keep any fluids down. Patient is currently stable and improving on IV fluids. Was given a **1 L fluid bolus** in the ER. Hypochloremia and hyponatremia are most likely secondary to dehydration from lack of oral intake and vomiting. This should resolve with IV fluid resuscitation and resolution of illness. Increased WBCs suggest an infectious etiology, although one would also expect some increase in WBC count with steroid use (patient on prednisone).

The most likely cause of this illness is a viral gastroenteritis. This illness is common in the pediatric population and is known to cause symptoms of nausea and vomiting. It is possible that this illness was contracted by contact with an infected individual during one of GC's many extracurricular activities. Another possibility would be a bacterial etiology. Lack of food safety concerns or others with similar illnesses make this a less likely possibility. Lack of a recent travel history makes a protozoal etiology unlikely. Because of the onset of illness directly after receipt of the influenza and pneumovax vaccines, side effects of these vaccines must be considered. However, neither of these vaccines have nausea and vomiting as a common side effect. It is also possible that these symptoms could be medication induced. GC is currently on prednisone, although this is a long-standing medication. The patient was recently started on Zoloft, however, it is unlikely that either of these medications could account for the severity of symptoms. Another consideration is that a drug overdose could potentially cause more severe symptoms. This seems unlikely, since the mother is very knowledgeable about his care and drug dosages and no self-destructive tendencies in GC were elicited. **Systemic infection could also be a possibility, Especially since he is** and blood cultures were drawn in the ER. Due to GC's limited respiratory capacity, pneumonia *immunocompromised on* must be considered as this will occasionally present as vomiting as a result of systemic infection. *long term steroids.* However, **lack of significant respiratory symptoms** and benign physical findings make this *Be aware though due to this* possibility highly unlikely. Lack of abdominal pain and worrisome physical exam findings *muscle weakness and decrease* effectively rule out surgical conditions such as appendicitis and intussusception. Although *in lung function, he may not* the patient did complain of headache, lack of findings on neuron exam and rapid resolution *generate much of a cough, probably hypoxia first.*

2. **Heme: increased WBC and neutrophil count. Likely due to infectious etiology. Steroid use may also contribute to this increased count. GREAT!!**

Musculoskeletal:

- a. Duchenne's muscular dystrophy. Stable. On prednisone daily. This daily prednisone may also account for BMI at 95th percentile.
 - b. Osteoporosis. Stable. On Fosamax weekly.
 - c. Lesion on left bicep: redness, swelling, and a painful hard lump are a common side effect at the site of injection of the Pneumovax vaccine and do not require medical attention.
3. Cardiovascular: Cardiomyopathy. Currently stable on Lisinopril
 4. Psych: Anxiety and depression. Currently stable on Zoloft and Wellbutrin.
 5. Psychosocial: Significant concerns about emotional abuse from father in addition to questions about possible paternal drug/alcohol abuse. Mother requested a social work consult.

Plan:

1. Vomiting and dehydration

Diagnostic Plan: Blood cultures pending. No further workup at this time.

Treatment Plan: Admit to peds inpatient. Was given 1 L fluid bolus in ER. IVF: 80 ml per hour D5 ½ normal saline with 20 KCL, run at maintenance. FEN/GI: Sips of clears as tolerated. Will advance to bland diet if tolerates clears. Order low sodium diet. Reassess in am. Will restart po meds. Give Zofran po for nausea.

Patient Education Plan: Educate mom on signs of dehydration. Explain that this illness should resolve on its own without sequelae. Explain importance of handwashing in reducing spread of infectious disease. Very Important for Families!

Follow-up Plan: Follow-up with PCP per scheduled visit in March.

2. Heme: Anticipate resolution of increased WBC and neutrophilia with cessation of illness. Some residual neutrophilia may be expected with steroid use.

You might have included the reason why here.

3. Musculoskeletal: Double prednisone dose to 50 mg per day. Mom may give home dose of supplements if tolerating po tomorrow am. Give Fosamax when tolerating po well (missed Friday dose). Advise mom to monitor swelling on left arm, but discussed that this is a common side effect and should resolve.
4. Cardiovascular: Continue lisinopril po.
5. Psych: Continue Zoloft and Welbutrin po.
6. Psychosocial: Social work consulted. Family may need help locating resources to deal with father's abuse and possible substance abuse issues. A determination of the family's safety should be made. Legal involvement may be necessary to relinquish father's right to unsupervised visits. Counseling would likely be helpful for all family members, including the father.

***OVERALL- VERY DETAILED, WELL-WRITTEN H&P WITH THOUGHTFUL DISCUSSION REGARDING DIFF. DX & PLAN
(STUDENT SIGNATURE)***

APPENDIX 2

PICO: Asking Questions You Can Answer

The excellent physician practices medicine based on the latest available current evidence. We know that textbooks are several years out of date by the time they are published, and review articles can be years out of date as well. So how does a busy clinician integrate evidence-based medicine into his or her clinical practice?

The process starts with knowing how to ask the right questions. A well-built clinical question is one that comes from daily interactions with patients (that is, it should be *patient-oriented*). It then must be formatted in a way that makes it easy to search the current literature to find an answer.

PICO is a mnemonic that helps clinicians translate clinical problems into questions that are *searchable* using such resources as Pubmed, Medline, or Cochrane.

PICO stands for:

| | | Examples |
|-----------|---|---|
| P: | Patient Population Problem | 3 year old female with asthma African-American adolescents infants with fever |
| I: | Intervention Or Exposure | azithromycin rapid strep test passive smoke exposure |
| C: | Comparison Intervention (if relevant) | placebo throat culture no exposure |
| O: | Outcome | death Smoking cessation Recovery time |

EXAMPLE 1

| | |
|----------|---|
| P | Children, ages 2-5 years old with acute otitis media |
| I | Delay antibiotic treatment at presentation and treat with ibuprofen 10 mg/kg every 6-8 hours for pain |
| C | Start treatment with antibiotics at presentation |
| O | Effect of pain as measured by parent report at 48 hours after presentation. |

EXAMPLE 2

- P Girls under 8 years old with first episode of urinary tract infection
- I Test for VUR with a voiding cystourethrogram
- C No Testing
- O Renal scarring at 10 years old as measured by DMSA

Additional resources:

The well-built clinical question: a key to evidence-based decisions. ACP Journal Club. 1995 Nov-Dec;123:A12

Center for Evidence-Based Medicine. <http://www.cebm.net/index.aspx?o=1036>

APPENDIX 3



THE PEDIATRIC PORTFOLIO

INSTRUCTIONS

1. Clinical Encounters
2. Performance Based Assessment
3. Pediatric Procedures
4. Structured Clinical Observation
5. PICO

For successful passage of the Clerkship, it is required that these items be completed and documented appropriately.

CLINICAL ENCOUNTERS (See Table Below)

A student should see at least the number of patients listed as required to be seen in each of the domains (patient type or core conditions). For each domain, a list of presenting symptoms or concerns and diagnoses that would support having seen a patient in that domain is listed. The domains are by nature broad, e.g. upper respiratory tract, which includes many common pediatric illnesses. Similarly a minimal number of patients seen for each domain either real (R) or case based (C) is specified.

Table Key:

CR = Clinical reasoning

+O = Outpatient

R = Real Patient

Hx = History taking/data gathering

I = Inpatient

C = CLIPP Case

PE = Physical examination

Pass/Fail to be used for PBA, PICO and SCO documentation only.

Clinical Encounter Table. This table reflects the consensus on the types of patients a student should see, the setting, and minimal level of student involvement during the clerkship experience.

| Types of Patients to be Seen | | | Number required to be seen (real 'R'; or C Case) | Clinical setting+ (O, I) | Alternative clinical learning experience | Documentation (Date, supervisor signature, student initials) | Monitored and verified (date) Clerkship Director's Signature |
|------------------------------------|---------------------------|--|--|--------------------------|--|--|--|
| Domain-patient type/core condition | Symptom, sign, or concern | Examples of diagnosis or issue addressed | | | | | |
| 1. Health Maintenance | Well child care | Newborn (0-1 month) | 1R | O/I | NA | | |
| | Well child care | Infant (1-12 months) | 1R | O | NA | | |
| | Well child care | Toddler (12-60 months) | 1R | O | NA | | |
| | Well child care | School aged (5-12 years) | 1R | O | NA | | |
| | Well child care | Adolescent (13-19 years) | 1R or 1C | O | CLIPP Case 5 | | |

| Types of Patients to be Seen | | | Number required to be seen (real 'R'; or C Case) | Clinical setting+ (O, I) | Alternative clinical learning experience | Documentation (Date, supervisor's signature, student initials) | Monitored and verified (date) Clerkship Director's Signature |
|------------------------------|--|--|--|--------------------------|--|--|--|
| 2. Growth | Parental concerns or abnormalities related to the domain | FTT, poor weight gain, obesity, short stature, microcephaly, macrocephaly, constitutional delay, small for gestational age, large for gestational age | 1R | O/I | NA | | |
| 3. Nutrition | Parental concerns or abnormalities related to the domain | FTT, breast vs. formula feeding, questions about switching to formula, when to add solids, beginning cow's milk, diet | 1R | O/I | NA | | |
| 4. Development | Parental concerns or abnormalities related to the domain | Delayed or possibly delayed language, gross motor, fine motor, or social adaptive skills | 1R | O/I | NA | | |
| 5. Behavior | Parental concerns or abnormalities related to the domain | Sleep problems, colic, temper tantrums, toilet training, feeding problems, enuresis, ADHD, encopresis, autistic spectrum disorder, eating disorders, head banging, poor school performance | 1R | O/I | NA | | |
| 6. Upper Respiratory Tract | Sore throat, difficulty swallowing, otalgia | Pharyngitis, strep throat, viral URI, herpangina, peritonsillar abscess, common cold, allergic rhinitis, otitis media, sinusitis, otitis externa | 1R | O/I | NA | | |

| Types of Patients to be Seen | | | Number required to be seen (real 'R'; or C Case) | Clinical setting+ (O, I) | Alternative clinical learning experience | Documentation (Date, supervisor signature, student initials) | Monitored and verified (date) Clerkship Director's Signature |
|-------------------------------|---|--|--|--------------------------|--|--|--|
| 7. Lower Respiratory Tract | Cough, wheeze, shortness of breath | bronchiolitis, bronchitis, pneumonia, aspiration, asthma, bronchiectasis, | 1R | O/I | NA | | |
| 8. Gastrointestinal Tract | Nausea, vomiting, diarrhea, abdominal pain | gastroenteritis, giardiasis, pyloric stenosis, appendicitis, HSP, peptic ulcer disease, gastroesophageal reflux disease | 1R | O/I | NA | | |
| 9. Dermatologic system | Rash, pallor | Viral rash, scarlatina, eczema, urticaria, contact dermatitis, toxic shock, thrush, atopic dermatitis, seborrheic dermatitis, acne, anemia | 1R | O/I | NA | | |
| 10. Central nervous system | Lethargy, irritability, fussiness, headache | meningitis, traumatic brain injury, seizures, ataxia, headache | 1R or 1C | O/I | CLIPP Cases 20, 24, 28 | | |
| 11. Emergent Clinical Problem | Respiratory distress, shock, ataxia, seizures, airway obstruction, apnea, proptosis, suicidal ideation, trauma, cyanosis. | Meningitis, shock, testicular torsion, DKA, acute life threatening event (ALTE), congestive heart failure, burns, status asthmaticus, status epilepticus, encephalitis, child abuse etc. | 1R or 1C | O/I | CLIPP Cases 23, 25 | | |

| Types of Patients to be Seen | | | Number required to be seen (real 'R'; or C Case) | Clinical setting+ (O, I) | Alternative clinical learning experience | Documentation (Date, supervisor signature, student initials) | Monitored and verified (date) Clerkship Director's Signature |
|---|----------|--|--|--------------------------|--|--|--|
| 12. Chronic medical problem | | seasonal allergies, asthma, cerebral palsy, cystic fibrosis, diabetes mellitus, malignancy (e.g. acute lymphocytic leukemia or Wilms tumor), sickle cell disease, epilepsy, atopic dermatitis, obesity, sensory impairment, HIV/AIDS | Two 1R and 1C or 2R's | O/I | CLIPP Cases 30, 31 | | |
| 13. Unique condition: fever without localizing findings | fever | rule out sepsis; urinary tract infection, systemic viral infection (e.g. EBV), autoimmune diseases, | Two 1R and 1C or 2R's | O/I | CLIPP Case 10 | | |
| 14. Unique condition: neonatal problems | jaundice | Jaundice, vomiting, prematurity, feeding problems, hypoglycemia, Respiratory distress | 1R | O/I | NA | | |

Performance-Based Assessment: Newborn Examination - You will have two attempts to pass this category.

| <i>Evaluation Code</i> | <i>Examiner's Signature</i> |
|------------------------|-----------------------------|
| <i>PASS/FAIL</i> | |

Pediatric Procedures:

Procedures required during the Clerkship are listed. Record procedures you were involved in and the level of your involvement in each skill/procedure.

| Procedures | Patient's Initials | Date | Reviewer's Signature |
|-------------------------|--------------------|------|----------------------|
| Pneumatic Otoscopy* | | | |
| Lumbar Puncture | | | |
| IM Injection | | | |
| Urinary Catheterization | | | |
| Circumcision | | | |

Every procedure observed, assisted, or performed must have the reviewer's (attending or resident) signature. Students are expected to review all procedures. Any procedure if not observed or performed, should be marked as self-review. (Self-review of videotape or websites are acceptable).

*Students are expected to carry out pneumatic otoscopy with confidence by the end of the clerkship. Preceptor monitored documentation of successfully performed pneumatic otoscopy is mandatory to pass the clerkship.

Structured Clinical Observations (SCO).

Each student must turn at least one completed SCO feedback form in each of the three areas of the physical exam listed.

SCO:

| <i>Evaluation Code</i> | <i>Examiner's Signature</i> |
|------------------------|-----------------------------|
| <i>HEENT</i> | |
| <i>Cardiopulmonary</i> | |
| <i>Abdomen</i> | |

PICO Questions:

Each student must develop a searchable clinical question using the PICO format (see appendix) on at least one patient encountered during the course of the pediatric clerkship. The student will submit this question to the clerkship director for review and evaluation. The student will have two attempts to pass this exercise.

PICO: You will have two attempts to pass this category.

| <i>Evaluation Code</i> | <i>Examiner's Signature</i> |
|------------------------|-----------------------------|
| <i>PASS/FAIL</i> | |