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Basic Pediatric Clerkship

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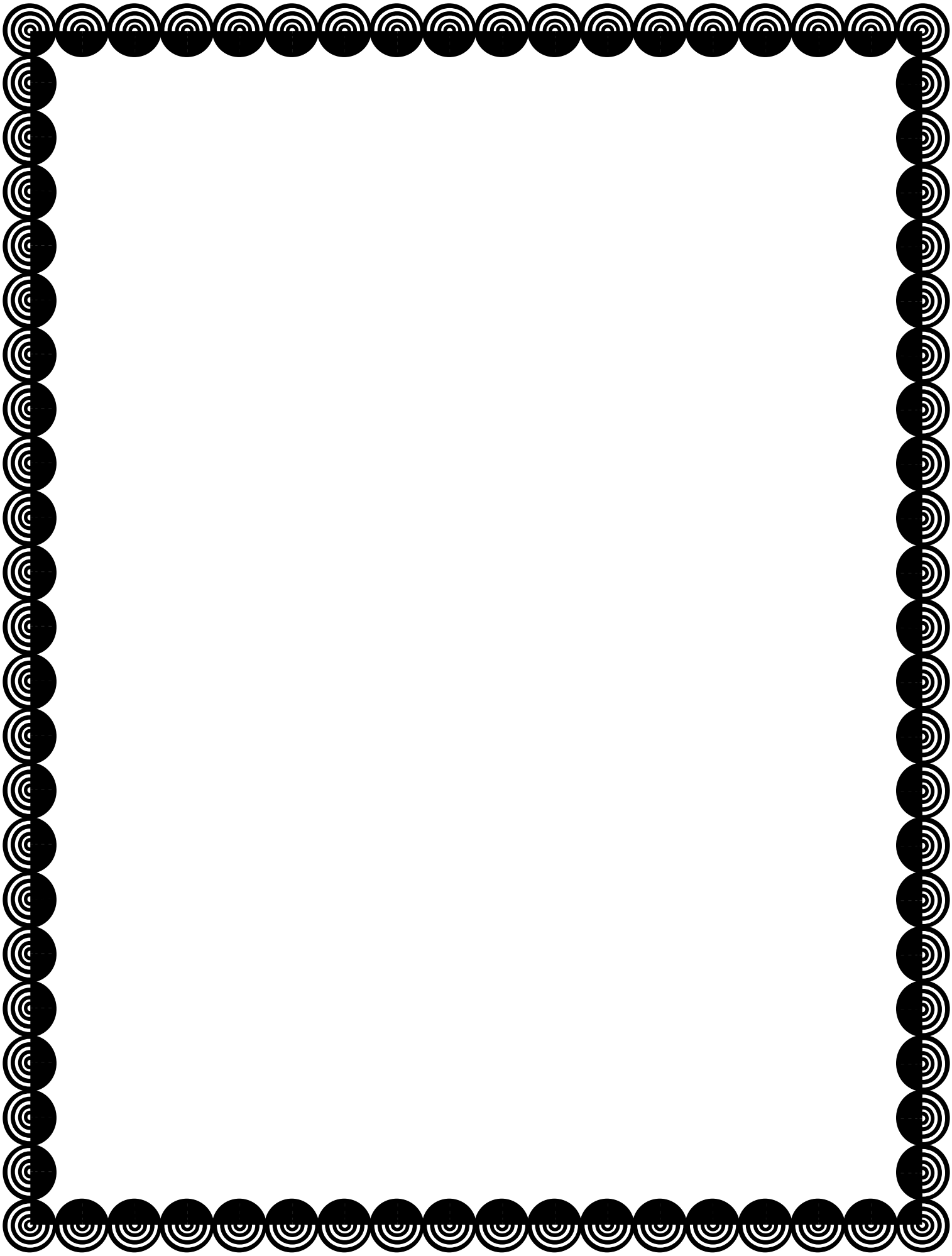


Core Pediatric Clerkship Manual Directory

Overview	
Educational Objectives	**2-3**
Minimal Competency Outline for Pediatric Skills	**4-12**
Grading Rubric	**13**
Grading forms (feedback and clinical performance evaluation)	**14-17**
Assignments	
Checklist of Assignments	**19**
Clinical Encounters Checklist	**20-21**
Pediatric Communication Skills	**22-24**
Pediatric History Taking • Approach to the Patient • Explanation of Pediatric H&Ps/Pediatric Database • Example H&Ps (older child and infant)	**26-39**
Pediatric Physical Examination • Pediatric Physical Examination Benchmarks • Observed Physical Examination Forms (neonate and older child)	**40-54**
Pediatric Medical Knowledge • Requirements and other learning resources • CLIPP cases and Instructions • Therapeutics Problem Set (Exercises 1-4) • Growth Problem Set	**55-70**
Pediatric Ethics and Professionalism • Resources • Benchmarks	**71-77**
Other materials	
Pediatric Ethics and Professionalism • Resources Benchmarks	
Career Advisors	**79**
Logistics	
General Policies (UWSOM) • Work Hours Policy • Attendance, Weather and Holiday Policy	**81-83**

OVERVIEW

Educational Objectives

The practice of Pediatrics involves addressing the health needs of children. Every child should have the opportunity to grow and develop to achieve his or her maximum potential; the job of the Pediatrician is to assist in that process by treating and preventing illness, guiding children and their families toward good health choices, and offering information and interventions that support the overall well-being of the child.

Goals of the core pediatric clerkship: Provide foundational skills and knowledge about the fundamental issues of health and illness relevant to the care of children.

Specific Competencies related to the Care of Children addressed in the Core Pediatric Clerkship:

1. Collect both focused and comprehensive, developmentally appropriate patient histories.
2. Perform an age appropriate physical examination on newborns, infants and older children.
3. Gather patient information in the triadic interviewing setting using active verbal and non-verbal listening skills, clarifying and summarizing statements, and open-ended and closed-ended questions.
4. Construct an appropriate approach to common pediatric clinical problems by:
    a. Identifying essential clinical features
    b. Outlining natural history of disease processes
    c. Creating a stratified differential diagnosis
    d. Formulating evidence-based diagnostic and therapeutic approaches
    e. Discussing how age and development influence our thinking.
5. Conduct healthcare maintenance visits that include the following components: childhood immunizations, assessment of child development and nutrition and the principles of anticipatory guidance.
6. Discuss the effects of growth and maturation on pharmacokinetics and use this knowledge to select the appropriate treatment regimens of commonly used fluids and medications in patients of different ages.
7. Analyze common professional and ethical dilemmas in pediatrics.

General Competencies for all physicians addressed in the Pediatric Core Training Experience:

1. Deliver well-organized, appropriately focused, and accurate oral patient presentations.
2. Write well-organized, appropriately focused, and accurate patient notes, including admission, progress and outpatient visit notes.
3. Demonstrate relationship building skills in each clinical encounter and interprofessional exchange.
4. Work effectively as a member of the healthcare team.
5. Elicit and recognize the perspectives and needs of families and provide care for patients within their social and cultural context.
6. Set personal and professional goals for learning.

Pediatric Clinical Skills:

After completing your Pediatrics clerkship, we expect that you will have gained knowledge and developed skills in the following areas related to the care of children:

1. Health Supervision/Anticipatory Guidance (includes poisoning/injury prevention)
2. Growth
3. Development and Behavior (includes issues of normal development and also concerns about behavior)
4. Nutrition for Children
5. Issues Unique to Adolescents
6. Newborn Care (includes newborn anticipatory guidance and the newborn physical exam)
7. Fluid/Electrolyte Management and Pediatric Therapeutics
8. Assessment of the Acutely Ill Child

For each area, we will describe the skills you are expected to learn and methods to demonstrate your capabilities.

Minimal Competency Outline for Pediatric Clinical Skills

Health Supervision/Anticipatory Guidance (includes poisoning/injury prevention)

"Anticipatory guidance" means providing information to parents and patients to maintain health, predict normal processes, and avoids problems. You should be able to provide anticipatory guidance in several areas:

Specific Skills	Minimum achievement
Health issues, adjusted as appropriate for the age of the child • Nutrition • Behavior • Immunizations • Injury prevention • Pubertal development	• Infants - List at least two benefits of breastfeeding; tell parents no solid foods before 4-6 months of age; recommend an appropriate first solid. Address at least one principle of vitamin or mineral supplementation. • Toddler - Address eliminating bottle feeding and limiting sugary beverage consumption. • Preschooler/School Age- Address at least one principle of a healthy diet, such as limiting sugary beverages and junk food and encouraging fruits and vegetables. • All ages - Ask about and/or look at immunization record.
Personal safety • Motor vehicle safety • Infant sleeping position • Falls • Burns • Poisoning • Fire safety • Choking • Water safety • Bike safety • STI (formerly called STD) • Firearms and weapons	• Address at least three age-appropriate safety concerns during a health maintenance visit.
Home safety and appropriate techniques to prevent accidental ingestions	• Mention to caregiver at least one age-relevant toxin that could be a potential risk for the child; e.g. medicines, cleaning supplies, household and gardening chemicals, lead. • Counsel caregiver about the appropriate storage of potential toxins; e.g. cabinet locks, safety caps. • Discuss with caregiver the appropriate intervention in the event of an exposure; this must include advice about calling poison control.

Learning Activities:	Assessment:
• Participate in outpatient health supervision clinic visits for at least 1 infant, 1 toddler and 1 older child • CLIPP cases 2, 3, 4, 5 • COMSEP Physical Examination Video • Physical Examination Benchmarks • Textbook (optional)	• Final examination • Clinical Performance Assessment • CEX (older child) • Communication Checklist

Growth

Normal growth is a marker of child health and well-being. Abnormal growth can be an indicator of chronic illness, genetic disorders, malnutrition, psychosocial problems, or other issues which require intervention. You should be able to address growth issues for children as follows:

Specific Skills	Minimum achievement
Demonstrate ability to measure and assess growth including height/length, weight, and head circumference and body mass index in patient encounters using standard growth charts.	• Plot growth data accurately. • If growth data are abnormal, recheck plot. • Recognize normal and abnormal growth patterns.

Learning Activities:	Assessment:

• Plot parameters and interpret data on all physical examinations during
  o Outpatient clinic visits
  o Inpatient care
  o Newborn nursery
• Growth Problem Set
• Textbook (optional)
	• Final examination
	• Evaluations of written H&P
	• Clinical Performance Assessment

Development and Behavior (includes issues of normal development and also concerns about behavior)

Although there is variation for each individual, childhood development and behavior should follow a generally recognized pattern. Abnormalities of development or behavior may suggest organic or psychosocial problems which require intervention; many problems can be avoided with appropriate guidance. You should be able to recognize and address development and behavior issues in children as follows:

Specific Skills	Minimum achievement
Basic assessment of normal childhood development and behavior Demonstrate an ability to assess the following in pediatric patients using appropriate resources: • Psychosocial development • Language development • Physical maturation • Motor development	• Describe at least one aspect of psychosocial development in a specific patient. • Describe at least one aspect of language development in a specific patient. • Describe at least one aspect of physical development in a specific patient • Demonstrate an appropriate exam • Recognize at least one sign of puberty • Describe at least one aspect of motor development in a specific patient. • Use an appropriate tool to screen and evaluate developmental progress (e.g. Denver Developmental Screening Test).
Evaluation and intervention for concerns related to childhood development and behavior • Identify behavioral and psychosocial problems of childhood using the medical history and physical examination	• Ask about and report behavior concerns identified in history or physical exam. • Ask about and report psychosocial concerns identified in history or physical exam. • Identify common abnormal behaviors seen in either infancy, childhood or adolescence such as sleep issues, toilet training. • Identify at least one common psychosocial problem in either infancy, childhood or adolescence such as limited family resources.

Learning Activities:	Assessment:
• CLIPP cases 2, 3, 4, 5 • Patient care (inpatient/outpatient) • Textbook (optional)	• Clinical Performance Assessment • Final Examination • Evaluations of written H&P • CEX (newborn and older child)

Nutrition for Children

Appropriate nutrition is of paramount importance so that children can achieve their goals of growth and development. Nutritional problems can interfere with growth and development and lead to health issues. During illness or in special chronic medical conditions, nutritional needs will differ from the norm. You should be able to address the following basic issues related to nutrition for children:

Specific skills	Minimum achievement
Obtain an appropriate dietary history in children of different ages:	
• 0-4 months	• If breastfeeding, ask duration of nursing; if bottle-feeding, ask volume and type of formula. • Ask about elimination (number of wet diapers, stools). • Ask if other foods or fluids are given, including water. • Plot on growth chart.
• 4-12 months	• Ask about all of the items in 0-4 months. • Ask if child is on solids, how much, and what types. • Ask about consumption of sugary beverages. • Plot on growth chart.
• 1-2 years	• Ask what child is eating; ask about type and amount of milk or other fluids (e.g. sugary beverages). • Ask about elimination. • Plot on growth chart.
• >2 years	• Ask what child is eating; ask about type and amount of milk or other fluids (e.g. sugary beverages). • Ask about elimination. • Plot on growth chart and calculate BMI.
• Adolescent	• Ask diet history (what, when, how much). • Plot on growth chart and calculate BMI.

Learning Activities:	Assessment:
• CLIPP cases 2, 3 • Patient care (inpatient/outpatient settings) • Textbook (optional)	• Final Examination • Clinical Performance Assessment • Evaluations of written H&P

Issues Unique to Adolescents

The changes of adolescence present unique health issues and new challenges for the patient, family, and pediatrician. You should be able to recognize and address these issues when caring for adolescents:

Specific skills	Minimum achievement
Medical interview of the adolescent • Interview an adolescent patient with emphasis on sensitive questions about lifestyle choices that affect health and safety (e.g. sexuality, drug, tobacco and alcohol use)	• Separate (or attempt to) patient from parent/guardian for part of the interview. • Address confidentiality with patient. • Ask a psychosocial history (e.g. HEADSS or other appropriate tool) that includes screening for at least two risk-taking behaviors.
Physical examination of the adolescent • Conduct a physical exam of an adolescent that demonstrates respect for privacy and modesty, employing a chaperone when appropriate	• Identify the need for chaperone when appropriate. • Utilize appropriate draping techniques. • Assess SMR (sexual maturity rating, formerly "Tanner stage") of breast, pubic hair, and genitalia. • Assess for scoliosis.
Health supervision of the adolescent • Provide information and guidance for issues related to adolescents with appropriate screening and preventive measures	• Give basic preventive counseling for common adolescent issues (e.g. diet, exercise, sexuality, substance use, safety).

Learning Activities:	Assessment:
• CLIPP case 5 • COMSEP Physical Examination Video • Physical Examination Benchmarks • Patient Care (inpatient/outpatient) • Textbook (optional)	• Clinical Performance Assessment • Final examination

Newborn Care (includes newborn anticipatory guidance and the newborn physical exam)

Pediatric care begins at birth, with careful evaluation of the newborn and support to the parents; this holds true for the normal infant and for those with health challenges. You should be able to assess and provide guidance for a newborn as follows:

Specific skills	Minimum achievement
Give anticipatory guidance to parents of a newborn for the following issues: • Feeding • Normal bowel and urinary elimination patterns • Appropriate car seat use • SIDS prevention • Health maintenance/prevention • Identifying illness	• Ask about plans for feeding. • Ask about frequency and volume of feeding. • List 2 benefits of breastfeeding/breast milk. • Display nonjudgmental attitude. • Ask about frequency of urine and stool output. • Ask if parents have a car seat; ask about car seat positioning (e.g. rear-facing, front vs. back seat). • Inquire about sleep position. • Ask about smoke exposure. • Ask about plan for follow-up care. • Ask if newborn received Hep B vaccine. • Verify that hearing and newborn screening done before discharge. • Give at least 2 reasons to call health care provider.
Perform a complete physical exam of the newborn infant	As outlined in Physical Examination Benchmarks

Learning Activities:	Assessment:
• CLIPP cases 1, 2, 7, 8, 9 • Newborn nursery experience • COMSEP Physical Examination Video • Physical Examination Benchmarks • Textbook (optional)	• CEX (Newborn) • Clinical Performance Assessment • Final examination

Fluid/Electrolyte Management and Pediatric Therapeutics

Maintaining effective circulating volume is necessary to assure organ perfusion. Children may be at increased risk for volume depletion due to their smaller size and higher propensity to develop volume-depleting ailments. Assessment of volume status and correction of fluid/electrolyte abnormalities are core pediatric skills. Since children come in many sizes, understanding how to address fluid or medication management that is appropriately scaled to the individual patient is of paramount importance. You should understand and be able to address the issues listed below:

Specific skills	Minimum achievement
Fluid/electrolyte management: • Obtain history and physical finding information necessary to assess the volume status of a child. • Calculate and write orders for intravenous maintenance fluids for a child considering daily water and electrolyte requirements. • Calculate and write orders for the fluid therapy for a child with severe volume depletion caused by gastroenteritis to include "rescue" fluid to replenish circulating volume, deficit fluid, and ongoing maintenance. • Explain to parents how to use oral rehydration therapy for mild to moderate volume depletion.	• Ask about intake and output. • Assess at least 2 physical exam findings and 1 vital sign relevant to intravascular volume status. • Choose appropriate intravenous fluid (water, sodium, glucose, other additives as indicated). • Calculate 1x maintenance correctly using weight or BSA. • Choose isotonic fluid at 10-20 mL/kg for "rescue" IV bolus. • Reassess patient after intervention. • Choose appropriate oral rehydration solution and recognize when it is indicated.
Medication dosing and therapeutics • Calculate a drug dose for a child based on body weight. • Write a prescription, e.g. for a common medication such as an antibiotic.	• Record child's weight in kilograms. • Record medications as "per kg" or "per body surface area" (i.e., scaled to patient size). • Assure that recommended dosing regimen scaled to patient size does not exceed adult maximum dose. • Starting with a medication and patient measurements, write an appropriate prescription including: name of medication, formulation, dose, dosing schedule, route, duration, amount and refills.

Learning Activities:	Assessment:
• CLIPP case 15 (and various other cases that have medication administration) • Patient care (inpatient and outpatient) • Pediatric Therapeutics Problem Set • Textbook (optional)	• Final examination • Clinical Performance Assessment

Assessment of the Acutely Ill Child

You may be called upon to provide emergency care to a patient at any time. One must be able to recognize and rapidly assess a sick child and understand how the presentation of illness may differ from that seen in an adult. Basic topics in pediatric acute assessment and emergency care, with which you should be familiar, include the following:

Specific skills	Minimum achievement
Basic evaluation of the acutely ill patient • Demonstrate the "ABC" assessment as a means for identifying who requires immediate medical attention and intervention. • Recognize that vital signs and other clinical clues to acute illness are different for children as compared to adults, and will vary for children of different ages. • Develop a framework to identify a child who needs acute, urgent, or emergent care.	• Inspect airway: o Look and listen o Auscultate lungs o Correctly articulate patency of airway • Inspect for chest movement. • Recognize signs of respiratory distress (retractions, cyanosis, apnea, tachypnea). • Assess circulation: o Feel for a pulse o Assess capillary refill o Assess heart rate • Recognize signs of circulatory compromise (tachycardia, bradycardia, weak pulse, prolonged capillary refill). • Note mental status as a marker of overall illness (calm, fussy, inconsolable, agitated, somnolent, obtunded). • Note general appearance as a marker of overall illness (alert, floppy, weak cry, etc.).
Specific topics in pediatric acute care • Obtain history relevant to a pediatric patient with an urgent medical problem, with special recognition of variations in presentation for different age groups. • Identify need for acute, urgent, or emergent care for certain specific pediatric issues: o Poisoning o Asthma/respiratory distress o Dehydration/volume depletion o Foreign body ingestion o Fever in the neonate o Non-accidental trauma	• Make a rapid assessment of the patient's clinical status. • Obtain assistance as indicated. • Obtain focused history with further details as necessary or appropriate.

Learning Activities:	Assessment
• Therapeutics Problem Set • CLIPP cases 19, 23, 24, 25 • Acute Care Outpatient experience • Textbook (optional)	• Final Examination • Clinical Performance Assessment

The previous section outlined specific **skills** that you are expected to obtain during your rotation. In addition, you are expected to obtain core medical knowledge related to the care of pediatric patients and their medical conditions. Specific objectives related to these activities include:

1. Construct an appropriate approach to common pediatric clinical problems by:
    - Identifying essential clinical features
    - Outlining natural history of disease processes
    - Creating a stratified differential diagnosis
    - Formulating evidence-based diagnostic and therapeutic approaches
    - Discussing how age and development influence essential clinical features, natural history of disease processes, differential diagnosis as well as diagnostic and therapeutic approach

Learning Activities:	Assessment:
• CLIPP Cases (1-32) • Didactics • Patient Care (inpatient/outpatient settings) • Written H&P • Textbook (optional)	• Final Examination • Evaluation of written H&P • Clinical Performance Assessment

Grading and Evaluation

Pediatric Clerkship Grading Rubric

To pass the Pediatric Clerkship you must:

- Complete all assignments
- Meet professionalism standards
- Perform at a passing level or higher on your clinical performance (Clinical Grade)
- Receive a passing grade or higher on the final examination (Exam Grade)

Your Final Grade is determined from a combination of your Clinical Grade and your Exam Grade.

CLINICAL GRADE

Your Clinical Grade is determined by the Site Director, who reviews the information provided by each evaluator with whom you worked during the clerkship. The Site Director assigns a numerical Clinical Grade based on the submitted values for Recommended Level of Evaluation for Time Spent, weighted appropriately for the level of time spent by each evaluator who observed your work and interacted with you.

On your Evaluation form, evaluators indicate Time Spent with Student and provide a Recommended Level of Evaluation for Time Spent:

TIME SPENT WITH STUDENT
Little or no contact
Sporadic and superficial contact
Infrequent but in-depth contact
Frequent and in-depth contact

RECOMMENDED LEVEL OF EVALUATION FOR TIME SPENT	
Exceptional Performance (Honors)	5
Exceeds Expectations (High Pass)	4
Meets Expectations (Pass)	3
Below Expected Performance for Level (Marginal)	2
Unacceptable Performance (Fail)	1

Please note that the Recommended Level of Evaluation from each evaluator, and thus the numerical Clinical Grade assigned by the Site Director, is not a simple average of values reported in the 12-item evaluation form. Rather, since each domain in the 12-item evaluation form may be considered differently depending on the types of patients you see and the environments where you work, the Recommended Level of Evaluation and the resultant numerical Clinical Grade represent overall assessments of your performance as a doctor-in-training.

All evaluations are reviewed *regardless of the level of contact* for comments that may be included in your final evaluation to provide specific feedback on your performance, to highlight areas of strength or to identify areas of concern. Significant areas of concern may constitute special circumstances which require individualized review.

EXAM GRADE

Your Exam Grade is the final percent correct score as reported on the standardized exam used in the clerkship. For the Pediatric Clerkship, the standardized exam is the CLIPP exam.

FINAL GRADE

Your Exam Grade adjusts your Clinical Grade giving an Adjusted Total Grade. The Final Grade is based on the Adjusted Total Grade as follows:

EXAM GRADE and ADJUSTMENT		ADJUSTED TOTAL GRADE, RANGE, and FINAL GRADE		
90% and above	+ 0.15	*Adjusted Total Grade is the Sum of Clinical Grade and Adjustment from Exam Grade*	Greater than 4.5	Honors
70%-89%	No Adjustment		3.75 – 4.5	High Pass
65%-69%	- 0.10		3.0 – 3.74	Pass
Less than 65%	*Exam Fail*		Less than 3.0	Fail

GRADING PHILOSOPHY

There is no curve and no forced normal distribution of grades for the Pediatric Clerkship. Each student is evaluated individually on the merits of clinical performance, knowledge of pediatric medicine, assignment completion and professionalism. Therefore, any student is eligible for any grade based on demonstrated performance.

We believe that every student who participates in the Pediatric Clerkship will be able to demonstrate the knowledge, skills and attitudes necessary to achieve a passing grade. Given our faith in you we assume that every student starts the Pediatric Clerkship at the level of Pass. If you participate fully, complete all assignments, act in the appropriately professional manner, and demonstrate the expected clinical skills, you will have met expectations and will achieve a Clinical Grade with a numerical value in the range of Pass. If you exceed the expected level of performance in multiple areas you will be eligible for a Clinical Grade with a numerical value in the range of High Pass. If you do not meet the minimum expectations for knowledge, skills, attitudes or professionalism you may receive a Clinical Grade of Fail; students who appear to be at risk for a failing grade will meet with the Site Director promptly to review performance and develop a plan for improvement.

A Clinical Grade in the numerical range of Honors is awarded to students who consistently perform at an exceptionally high level throughout the Pediatric Clerkship. To be eligible for a Clinical Grade in the numerical range of Honors we would expect you to demonstrate the following attributes, consistently over time, in multiple settings:

- Show an exceptional dedication to patients and their care
- Exhibit superior clinical skills, collecting data (History/Physical/Medical record review) with ease, precision and accuracy
- Have appropriate, intuitive, facile engagement with patients and families
- Synthesize and prioritize data with the development of patient specific differential diagnoses and assessments
- Offer logical, cogent, thoughtful patient care plans and provide organized, thorough, concise presentations
- Demonstrate a high level of engagement that exemplifies self-directed learning
- Seek, accept and implement feedback
- Engage in collaborative and respectful interactions with all team members

To receive a Final Grade of Honors, we believe that a student must demonstrate a high level of clinical skill and engagement as noted above along with showing mastery of the knowledge base related to Pediatric medicine. This is why a minimum performance level on the standardized exam is also required to receive the Final Grade of Honors. Please note that to receive a Final Grade of Honors, you must achieve the appropriate Adjusted Total Grade and also score 75% or higher on your Exam Grade; if your Adjusted Total Grade is Honors eligible but your Exam Grade is <75%, your Final Grade is High Pass (see above).

SPECIAL CIRCUMSTANCES

Final Grade of Fail or other special circumstances will be referred to the Associate Dean for Student Affairs and/or Student Progress Committee in accordance with UWSOM policy.

UWSOM Clinical Performance Evaluation:

Faculty and residents will use this evaluation scheme to determine your clinical performance. Your evaluation will be entered into the EValue system. Review the descriptions of each of the levels of performance to better understand how you can improve your performance.

Knowledge of Subject: Includes level of knowledge and application to clinical problems.					
Unacceptable ☐1	*Below Expectations* ☐2	*Meets Expectations* ☐3	*Exceeds Expectations* ☐4	*Exceptional* ☐5	*NA* ☐
Does not demonstrate understanding of basic principles. Does not apply knowledge to specific patient conditions	Rarely demonstrates understanding of basic principles. Rarely applies knowledge to specific patient conditions	Often demonstrates understanding of basic principles. Often applies knowledge to specific patient conditions.	Consistently demonstrates clear understanding of basic and some complex principles. Consistently applies knowledge to specific patient conditions.	Almost always demonstrates mastery of basic and most complex principles. Almost always applies knowledge to specific patient conditions. A resource for others.	
Data-Gathering Skills: Includes basic history and physical examination.					
Unacceptable ☐1	*Below Expectations* ☐2	*Meets Expectations* ☐3	*Exceeds Expectations* ☐4	*Exceptional* ☐5	*NA* ☐
Does not obtain basic history and physical or key information and findings.	Rarely obtains basic history and physical. Has difficulty gathering all the data or is easily side-tracked or has difficulty prioritizing.	Often obtains basic history and physical. Information is organized and complete enough to make an assessment of major problems.	Consistently obtains basic history and physical. Information is organized and complete and identifies and assesses all major and most minor problems.	Almost always obtains basic history and physical. Information is complete, organized, and efficiently assesses all major and minor problems.	
Clinical Reporting Skills: Includes oral case presentations, written or dictated notes, histories, and physical exams.					
Unacceptable ☐1	*Below Expectations* ☐2	*Meets Expectations* ☐3	*Exceeds Expectations* ☐4	*Exceptional* ☐5	*NA* ☐
Does not communicate medical history and physical exams in an organized or complete manner. Unable to communicate major points in explaining patient's story.	Rarely communicates medical histories or physical exams in an organized or complete manner. Has difficulty with chronology or details of findings that makes the story difficult to interpret.	Often communicates medical history and physical exams in an organized and complete manner. Presentation identifies and describes all major problems.	Consistently communicates medical histories and physical exams in an organized and complete manner. Presentations identify and describe all major and most minor problems.	Almost always communicates medical histories and physical exams in an organized and complete manner. Clear written and oral presentations.	
Procedural Skills: Includes knowledge, preparation, performance, and attention to patient comfort and dignity.					
Unacceptable ☐1	*Below Expectations* ☐2	*Meets Expectations* ☐3	*Exceeds Expectations* ☐4	*Exceptional* ☐5	*NA* ☐
Not attentive to patient's comfort or dignity. Demonstrates poor motor skills that result in inadequate performance of tasks. Poor preparation for the task.	Rarely attentive to patient's comfort or dignity. Rarely demonstrates good motor skills that result in an inadequate performance of the task. Incomplete preparation for the task.	Often attentive to patient's comfort or dignity. Often demonstrates good motor skills that result in an adequate performance of task. Usually prepared for the task.	Consistently attentive to patient's comfort and dignity. Consistently demonstrates good motor skills that result in an adequate performance of task. Consistently prepared for the task.	Almost always attentive to patient's comfort and dignity. Almost always demonstrates excellent motor skills that result in an adequate performance of the task. Almost always prepared for the task and plans ahead for potential problems.	
Integration Skills: Includes problem-solving skills, ability to use data from patient interview, physical examination, and ancillary tests to identify major and minor patient problems in an organized and efficient manner.					
Unacceptable ☐1	*Below Expectations* ☐2	*Meets Expectations* ☐3	*Exceeds Expectations* ☐4	*Exceptional* ☐5	*NA* ☐
Does not consistently identify major patient problems and issues.	Rarely able to independently identify and prioritize major problems. Rarely able to problem solve and organize efficiently.	Often able to independently identify and prioritize major problems. Often able to problem solve and organize efficiently.	Consistently able to identify and prioritize all major and most minor patient problems. Consistently able to problem solve and organize efficiently.	Almost always able to identify and prioritize all major and minor problems. Almost always able to problem solve and organize efficiently.	

Management Skills: Includes order writing, initiative, practicality, and independence.

Unacceptable ☐1	*Below Expectations* ☐2	*Meets Expectations* ☐3	*Exceeds Expectations* ☐4	*Exceptional* ☐5	*NA* ☐
Does not offer an independent management plan or plan is unrealistic or illogical. All decisions deferred to others.	Rarely offers an independent plan and/or plan is often unrealistic or illogical.	Often offers an independent management plan that is realistic and logical.	Consistently offers an independent management plan that is logical and realistic. Plans are helpful to the team's management of the patient.	Almost always offers an independent management plan that is logical and realistic. Plans are well focused and on target and become part of the team's management of the patient.	

Patient Centered Care: Includes eliciting and negotiating agenda; eliciting patient's perspective of illness; and negotiating treatment plan.

Unacceptable ☐1	*Below Expectation* ☐2	*Meets Expectations* ☐*3*	*Exceeds Expectations* ☐*4*	*Exceptional* ☐*5*	*NA* ☐
Does not integrate biomedical and psychosocial perspective into care plan and patient management. Does not elicit patient's perspective of his/her illness. Does not elicit and negotiate agenda with patient. Does not negotiate treatment plan with patient.	Rarely integrates biomedical and psychosocial perspective into care plan and patient management. Rarely elicits the patient's perspective of his/her illness. Rarely elicits and negotiates agenda with patients. Rarely negotiates treatment plan with the patient.	Often integrates biomedical and psychosocial perspective into care plan and patient management. Often elicits the patient's perspective of his/her illness. Often elicits and negotiates agenda with patients. Often negotiates treatment plan with the patient.	Consistently integrates biomedical and psychosocial perspective into care plan and patient management. Consistently elicits the patient's perspective of his/her illness. Consistently elicits and negotiates agenda with patients. Consistently negotiates treatment plan with the patient.	Almost always integrates biomedical and psychosocial perspective into care plan and patient management. Almost always elicits the patient's perspective of his/her illness. Almost always elicits and negotiates agenda with patients. Almost always negotiates treatment plan with the patient.	

Communication Skills with Patients, Families, Colleagues, and Staff. Includes ability to modify communication style and ability to listen and constructively resolve conflicts

Unacceptable ☐1	*Below Expectations* ☐2	*Meets Expectations* ☐3	*Exceeds Expectations* ☐4	*Exceptional* ☐5	*NA* ☐
Does not communicate information effectively. Does not have an awareness to modify communication style and content to situation. Unable to establish rapport. Unable to listen and be silent. Not culturally proficient.	Rarely communicates information effectively. Rarely has an awareness to modify communication style and content to situation. Rarely able to establish rapport. Rarely able to listen and be silent. Rarely culturally proficient.	Often communicates information effectively. Often modifies an awareness to modify communication style and content to situation. Often able to establish rapport. Often able to listen and be silent. Often culturally proficient.	Consistently communicates information effectively. Consistently has an awareness to modify communication style and content to situation. Consistently able to establish rapport. Consistently able to listen and be silent. Consistently culturally proficient.	Almost always able to communicate information effectively. Almost always able to modify communication style and content to situation. Almost always able to establish rapport. Almost always able to listen and be silent. Almost always culturally proficient.	

Relationships with Patients and Families: Includes courtesy, empathy, respect, compassion, and understanding the patient's perspective.

Unacceptable ☐1	*Below Expectations* ☐2	*Meets Expectations* ☐3	*Exceeds Expectations* ☐4	*Exceptional* ☐5	*NA* ☐
Disrespectful, indifferent, callus, discourteous or condescending. Does not solicit the patient's perspective. Imposes own personal values on patient when in conflict with their own. Violates HIPAA including patient confidentiality. Inappropriate boundaries. Exhibits behavior that is potentially harmful to patients.	Rarely shows respect, empathy, and compassion. Rarely solicits the patient's perspective. Rarely respects patient's values or imposes own personal values on patient when in conflict with his/her own.	Often demonstrates respect, empathy, and compassion. Often solicits the patient's perspective. Often respects the patient's values, even when in conflict with his/her own.	Consistently demonstrates respect, empathy, and compassion. Consistently able to solicit the patient's perspective. Consistently respects the patient's values even when in conflict with his/her own.	Almost always shows respect, empathy, and compassion. Almost always able to solicit the patient's perspective. Almost always respects the patient's values even when in conflict with his/her own.	

Professional Relationships: Ability to work collaboratively with team members, including faculty, staff, and other students; courteous and cooperative attitude; maintains composure in times of stress.					
Unacceptable ☐1	*Below Expectations* ☐2	*Meets Expectations* ☐3	*Exceeds Expectations* ☐4	*Exceptional* ☐5	*NA* ☐
Does not collaborate and/or establish appropriate relationships with team. Does not respect team members within and across specialties. Not compassionate when interacting with team. Does not clarify expectations or clinical responsibilities. Inappropriate boundaries	Rarely collaborates and/or establishes appropriate relationships with team. Rarely respects the roles of team members within and across specialties. Rarely is compassionate when interacting with team.	Often collaborates and/or establishes appropriate relationships with team. Often recognizes and respects roles of all team members within and across specialties. Often is compassionate when interacting with team.	Consistently collaborates and/or establishes appropriate relationships with team. Consistently recognizes and respects roles of team members within and across specialties. Consistently compassionate when interacting with team	Collaborates well with entire team and seeks to improve team function. Always recognizes and respects roles of team members within and across specialties and works to improve team cohesion. Almost always compassionate when interacting with team.	
Educational Attitudes: Includes active participation in learning, self-reflection, and responsiveness to feedback, and provides respectful and constructive feedback.					
Unacceptable ☐1	*Below Expectations* ☐2	*Meets Expectations* ☐3	*Exceeds Expectations* ☐4	*Exceptional* ☐5	*NA* ☐
Does not do what is required. Does not respond appropriately to feedback. Does not reflect on his/her own knowledge base. Does not participate in educational experiences. Is not actively engaged in learning. Argumentative or hostile with feedback. Values self above others, sense of entitlement. Engages in destructive competition. Feedback provided to others is not respectful.	Rarely does what is required. Rarely responds appropriately to feedback. Rarely reflects on his/her own knowledge base. Rarely participates in educational experiences. Rarely is actively engaged in learning.	Often does what is required. Often responds appropriately to feedback. Often reflects on his/her own knowledge base. Often participates in educational experiences. Often is actively engaged in learning.	Consistently does what is required. Consistently responds appropriately to feedback. Consistently reflects on his/her own knowledge base. Consistently participates in educational experiences. Consistently is actively engaged in learning. Seeks additional learning opportunities beyond required level. Often volunteers and stimulates others in discussion. Requests feedback routinely.	Actively participates in all activities. Actively seeks feedback and responds appropriately. Initiates self-assessment and teaches others. Almost always participates in educational experiences. Almost always is actively engaged in learning. Asks insightful questions, motivates others, and demonstrates leadership with individuals and in group settings.	
Dependability and Responsibility: Includes attendance, preparation, and personal appearance. Maintains personal honor and integrity.					
Unacceptable ☐1	*Below Expectations* ☐2	*Meets Expectations* ☐3	*Exceeds Expectations* ☐4	*Exceptional* ☐5	*NA* ☐
Frequently late without a legitimate reason or unprepared. Does not follow through with assigned tasks. Not trusted to work independently. Dishonest in any way. Does not maintain appropriate appearance. Absent without an excuse. Erratic or unpredictable behavior.	Occasionally late or unprepared. Rarely follows through with assigned tasks. Rarely trusted to work independently.	On time and prepared. Often follows through with assigned tasks. Often trusted to work independently and knows limits and asks for help when needed.	On time and prepared. Follows through with assigned tasks and often volunteers additional effort to follow through with patient care. Consistently trusted to work independently and knows limits and asks for help when needed.	On time and prepared for required and optional activities. Follows through with assigned tasks and consistently volunteers additional effort to follow through with patient care. Almost always trusted to work independently and knows limits and asks for help when needed.	

ASSIGNMENTS

Checklist for Core Pediatric Clerkship

Required assignments for the Pediatric Clerkship are listed on the Pediatric Tracker. You will use a check box to indicate completion of your assignments and will upload completed forms on the pediatric tracker webpage. https://courses.washington.edu/pedsclrk/tracker/ Access is assigned to each user by their UW net ID.

The following list is for your reference only and is an outline of the assignments you will need to complete to pass your clerkship. Use your Pediatric Tracker for logging and uploading required assignments.

- ☐ CLIPP cases (www.med-u.org)
- ☐ Mid-Clerkship Feedback form: During 3rd week of clerkship
- ☐ Clinical Encounters Checklist
- ☐ Communication Skills Assignment/Medical interviewing scale forms: Acute and Well Child
- ☐ Submit 3 complete history and physical examination write ups for evaluation and feedback, (upload **with the feedback comments** into the pediatric tracker)
- ☐ Observed physical examinations (Mini-CEX): Newborn and Pediatric
- ☐ Therapeutics Problem Set (Exercises 1-4)
- ☐ Growth Problem Set
- ☐ Complete history and physicals on at least 10 patients
- ☐ Work as an integral part of the care team during your rotation
- ☐ Pass the final examination for the course

The specific information about how and when you will complete these assignments will be given to you by your site coordinator/faculty member.

Communication Skills Assignment for the Pediatric Clerkship

One important goal of your pediatric training is to learn to gather histories from parents and patients in a variety of settings. There are three parts to this assignment and practicing your skills with real patients is the core part of your learning. Depending on your experiences prior to your clerkship, you may want to spend more or less time on the first two elements. The "Medical Interviewing Rating Tools" are located in 3 places for you, 1) in the clerkship manual, 2) on the Pediatric Tracker page, 3)at the pediatric clerkship website, forms: http://www.washington.edu/medicine/pediatrics/students/current/third-year

1. Observe your preceptor doing different types of pediatric interviews & note their skills. Directed observation and then discussion afterwards will help you notice specific skills we want you to practice during the clerkship. There are two main types of visits we want you to do in the pediatric clinic:
    a. Well child exams
    b. New visit for an acute problem

    Once you have observed your preceptor performing a well child exam and an acute care visit, fill out the appropriate checklist ("Medical Interviewing Rating Tool Established Well Child Care" or "Medical Interviewing Rating Tool Acute care/sick visit") and discuss elements you have questions about and why the preceptor's approach may have differed from the observation form. As you know, the clinical encounter is complex, and there is no "right way" to conduct patient histories.

2. Review teaching materials about pediatric communication
    a. There is a general overview of how to communicate with children in your clerkship manual
    b. A short video (https://www.youtube.com/watch?v=zOF6Zfol7Ws) that models how to conduct a well child visit.
    c. CLIPP cases 1-5 also cover well child visits.

    Review as much as you need to before conducting the visits to make sure you are comfortable and confident with your patients.

3. Perform at least one acute care and well child visit while your preceptor observes part/all of the visit. They will use the SAME checklist you did when you observed them. Upload into your pediatric tracker, **TWO medical interview rating scale forms** (one well child + one acute visit) by the end of the clerkship.

4. Get feedback on your skills—this should be continuous through out the clerkship, from patients, faculty and your own self-feedback. The checklist on the observed patient interactions is to document minimal competency and make sure feedback happens.

Pediatric Medical Knowledge

During the course of the clerkship, you will learn about common pediatric illnesses/problems in all age groups as well as approach to healthcare maintenance for children.

This material is covered in the CLIPP cases (www.Med-u.org). You are expected to complete all the CLIPP cases during the course of the clerkship.

In addition, there are 2 problems sets for you to complete:

1) Therapeutics Problem Set (Exercises 1-4)
2) Growth Problem Set

To help you through the Therapeutics Problem Set, we have created the following Catalyst website. You will need your UW NetID to access the site.

https://catalyst.uw.edu/workspace/jsymons/45737/

Collectively, this content will provide you with a solid foundation for caring for common pediatric problems and prepare you for your final examination.

To further prepare for the USMLE Step II CK, we recommend thorough review of the content presented in the clerkship, completion of additional practice questions, use of review books as appropriate, adequate study time and following the guidance of the learning specialists at UW School of Medicine.

You may also find the following textbook useful:

- Blueprints in Pediatrics (6^{th} or 7^{th} edition)

Copies of all of the information on this page can be found on the clerkship website: http://www.washington.edu/medicine/pediatrics/students/current/third-year

CLIPP Cases and Instructions

Go to http://www.med-u.org/

To obtain your password/login:

1. Click on the "Sign In" tab at the top of the web page,
2. Click on the "Register" icon.
    a. To obtain the password/login you **must** use your u.washington.edu email address (the program won't recognize domain names like gmail or hotmail).
    b. Register as a medical student and complete the answers on the registration form.
        i. Note, you will be able to change the password in the future, but you will not be able to change your login once you receive it by e-mail.
3. Your password and login will be emailed to your u.washington.edu email account.
4. You will be prompted to change your password upon logging in for the first time.

Note: if you have used Med-U cases in the past, you will use your previous login and password. If you have forgotten your password;

1. Click on forgot password
2. Request one to be sent to you at your UW e-mail address.
    a. The e-mail will contain your login and a temporary password.

To Begin CLIPP Cases:

1. Go to the Med-U web page, link above
2. On the home page, click on "For Students"
3. Use the "*Click **here** to go to our cases*. "
4. Enter your login and password to get into the system
5. Select the Icon for the CLIPP Pediatric Course.
6. Select a case and begin to work through them.

You do not have to do the cases all at once. When you quit the program, the website will save the place where you stopped. You should be able to return to the case at that progress point.

Please contact the Medical Student Office if you need additional login assistance.

Pediatric Therapeutics Exercise #1

Fluid Management for Pediatric Patients
Part 1 – How to Address the Volume Deplete Patient

Some things to remember:

- Always evaluate your patient's volume status
- Use weight changes and your clinical judgment to assess a volume deficit
- The goal in volume replacement is to improve effective circulating volume
- Oral therapy and IV therapy both have a place in treating children with volume depletion
- Ongoing monitoring and review of your patient's progress is required

Complete Fluid Management Part 1:
Website: https://catalyst.uw.edu/workspace/jsymons/45737/ (You will need your UW NetID to access the site.)

Clinical Problems

1. A normally healthy 18-month-old girl who weighed 11kg two weeks ago comes to the ER with the complaint of "the flu". She had emesis four times this morning and now has had two loose stools. She weighs 10.8kg on admission to the ER; her physical exam is significant for a weepy, unhappy appearing child.

   What would you do to assess and treat this child's fluid and electrolyte abnormality?

2. A normally healthy 18-month-old girl who weighed 11kg two weeks ago comes to the ER with the complaint of "the flu". She has only been taking water and juice; now she refuses all fluids. She weighs 10.2kg on admission to the ER; her physical exam is significant for tachycardia and dry mucous membranes.

   What would you do to assess and treat this child's fluid and electrolyte abnormality?

3. A normally healthy 18-month-old girl who weighed 11kg two weeks ago comes to the ER with the complaint of "the flu". She has only been taking water and juice for several days; now she refuses all fluids and her parents say she is lethargic. Her parents do not remember the last time she made any urine. She weighs 9.2kg on admission to the ER; her physical exam is significant for tachycardia, dry mucous membranes, cool extremities and tenting skin. She is afebrile. She arouses to noxious stimuli.

   What would you do to assess and treat this child's fluid and electrolyte abnormality?

Pediatric Therapeutics Exercise #2

Fluid Management for Pediatric Patients
Part 2 – How to Provide Maintenance Fluids

Some things to remember:

- The volume of fluid required to keep a patient in normal balance is often called "maintenance"
- Maintenance needs may differ from person to person or from day to day
- Based on assumptions of normal physiology, it is possible to calculate maintenance needs
- The assumptions about maintenance needs do not always hold in the setting of illness

Complete Fluid Management Part 2:

Website: https://catalyst.uw.edu/workspace/jsymons/45737/ (You will need your UW NetID to access the site.)

Clinical Problems

Write the intravenous maintenance fluid order for the following patients. Remember to include the type of intravenous fluid (i.e., amount of dextrose, sodium chloride, potassium, etc.) and the hourly rate.

1. A previously healthy 8-year-old girl seen in the pediatric emergency department with possible appendicitis. The pediatric surgeons have recommended that she be kept NPO (nothing by mouth) while they observe to see if her clinical signs will evolve, necessitating surgery. Weight is 25kg.

2. An 18-month-old boy is seen in the emergency department with rotavirus infection. Family tried to give oral fluids at home but over the last 24 hours his oral intake has been reduced. In the emergency department he appeared volume deplete so he received normal saline bolus 20ml/kg intravenously. He looks better after this bolus but he will only take small sips of clear liquids; it is felt he would likely "bounce back" to the emergency department were he to be discharged home. Weight is 12kg.

3. A 17-year-old girl with a kidney transplant comes in for a routine surveillance kidney biopsy. The biopsy goes well but she feels nauseous from her anesthetic and is uninterested in drinking fluids. The nurse contacts you for maintenance IV fluid orders until the patient is feeling better and will take fluids by mouth. The patient weighs 65kg. Kidney transplant function is normal with serum creatinine of 0.8 mg/dL. She took all of her appropriate medications this morning and is not due for her medications again until 8pm (5 hours from now). The renal transplant team has instructed her to take 2.5 liters of fluid every day to "keep her transplant healthy" – normally she has no problem taking this volume of daily fluid.

4. A newborn term infant male, birth weight 3400 grams, is admitted to the neonatal ICU for observation due to tachypnea. He has good oxygenation and does not require mechanical ventilation but the neonatology team wishes to observe; they will keep the baby NPO for the first 12-24 hours.

Pediatric Therapeutics Exercise #3

Medication Ordering Exercise

Some things to remember:

1. Medications and other therapeutics need to be dosed in a manner appropriate for children. This most often requires scaling a drug dose to body weight or body surface area. Accurate weight and height are therefore necessary to both evaluate and treat a pediatric patient.
2. In some rare circumstances (e.g., extremes of abnormal weight, fluid excess, etc.), measured body weight/height may not be appropriate for dosing calculations. Rather, "ideal" weight/height would be used.
3. Not all medications come in forms that are usable in all children (e.g., liquids for oral use in a small child who cannot swallow a pill) and not all medications are acceptable for use in children. These issues must be considered when prescribing.

Complete Medication Ordering:

Website: https://catalyst.uw.edu/workspace/jsymons/45737/ (You will need your UW NetID to access the site.)

Using a pediatric formulary reference, determine the appropriate dose of medications for the following clinical situations. Write the dose, route, frequency, and if necessary the duration, formulation (tablets, liquid, etc.) and/or the "as needed" (PRN) indication.

Clinical Situation	**Medication**
18-month-old boy admitted for fever and respiratory distress Weight: 12kg Height: 82cm	Rx: ACETAMINOPHEN
4-year-old girl admitted for pyelonephritis Weight: 16kg Height: 100cm	Rx: CEFTRIAXONE
16-year-old girl seen in the clinic with probable UTI Weight: 72kg Height: 155cm	Rx: TRIMETHOPRIM-SULFAMETHOXAZOLE
7-year-old boy treated in the ER for acute asthma exacerbation Weight: 21 kg Height: 122 cm	Rx: ALBUTEROL
3-year-old girl with new-onset nephrotic syndrome Weight: 14 kg Height: 95 cm	Rx: PREDNISONE

Pediatric Therapeutics Exercise #4

Clinical Case Exercise

Pediatric Therapeutics Exercise #4 – A Child with a Fever

Fever is a common presenting problem in pediatrics and can be related to many potential etiologies. Understanding how to evaluate and manage a child with a fever is an important skill which requires you to employ multiple concepts of assessment and medical decision-making.

To prepare for this exercise, please be sure to complete CLIPP cases 10, 17, 23 prior to the session. These cases provide a clinical background related to the evaluation and management of children with fever.

At the session, you will begin with a short quiz that will help you to assess your understanding of the core knowledge presented in the CLIPP cases noted above. After this you will work together as a group to evaluate a case of a child with a fever.

Growth Problems Set

1. Required Reading: Weintraub, B. Growth. Pediatrics in Review 2011; 32; 404-06. Available electronically through Healthlinks. (This is a brief overview of normal growth, how to measure growth and the approach to growth problems).

2. Interpret the following growth charts (scenarios A-D) and create a differential diagnosis (if needed) for the growth pattern and explain your rationale for each choice. Finally, for each scenario, outline a strategy for assessment and management of the patient. Remember, some scenarios may represent normal growth!

These items are included in your manual on the following pages.

Growth Problem Set Reading

You will be given a copy of the following article at your site to help you complete the Growth Problem Set.

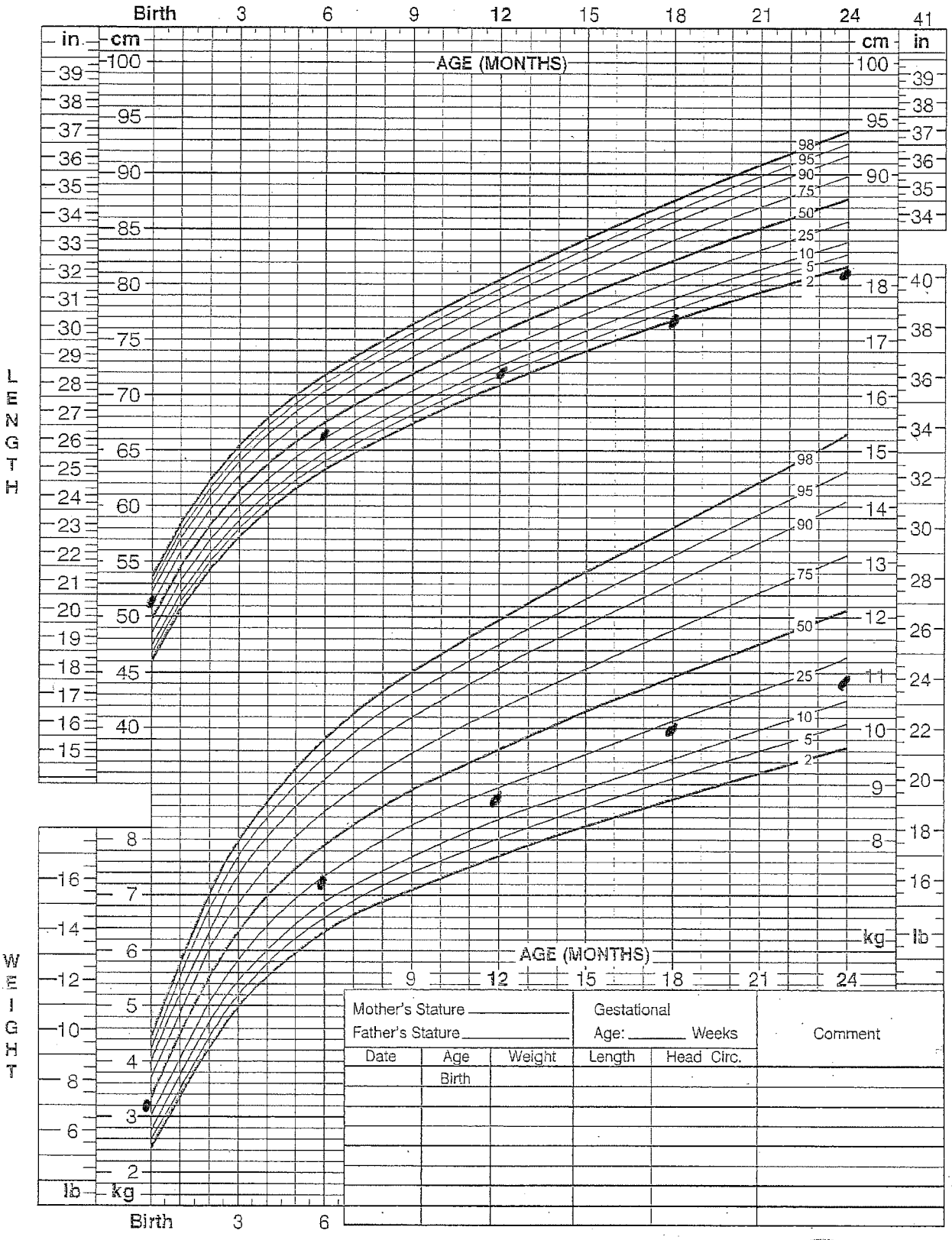
If you would like to access this article electronically you may do so via UW Healthlinks:

Weintraub, Benjamin. Growth. Pediatrics in Review 2011;32;404

Birth to 24 months: Boys
Length-for-age and Weight-for-age percentiles

NAME CASE 1 / Scenario A

RECORD #



Mother's Stature _____ Father's Stature _____			Gestational Age: _____ Weeks		Comment
Date	Age	Weight	Length	Head Circ.	
	Birth				

Published by the Centers for Disease Control and Prevention, November 1, 2009
SOURCE: WHO Child Growth Standards (http://www.who.int/childgrowth/en)

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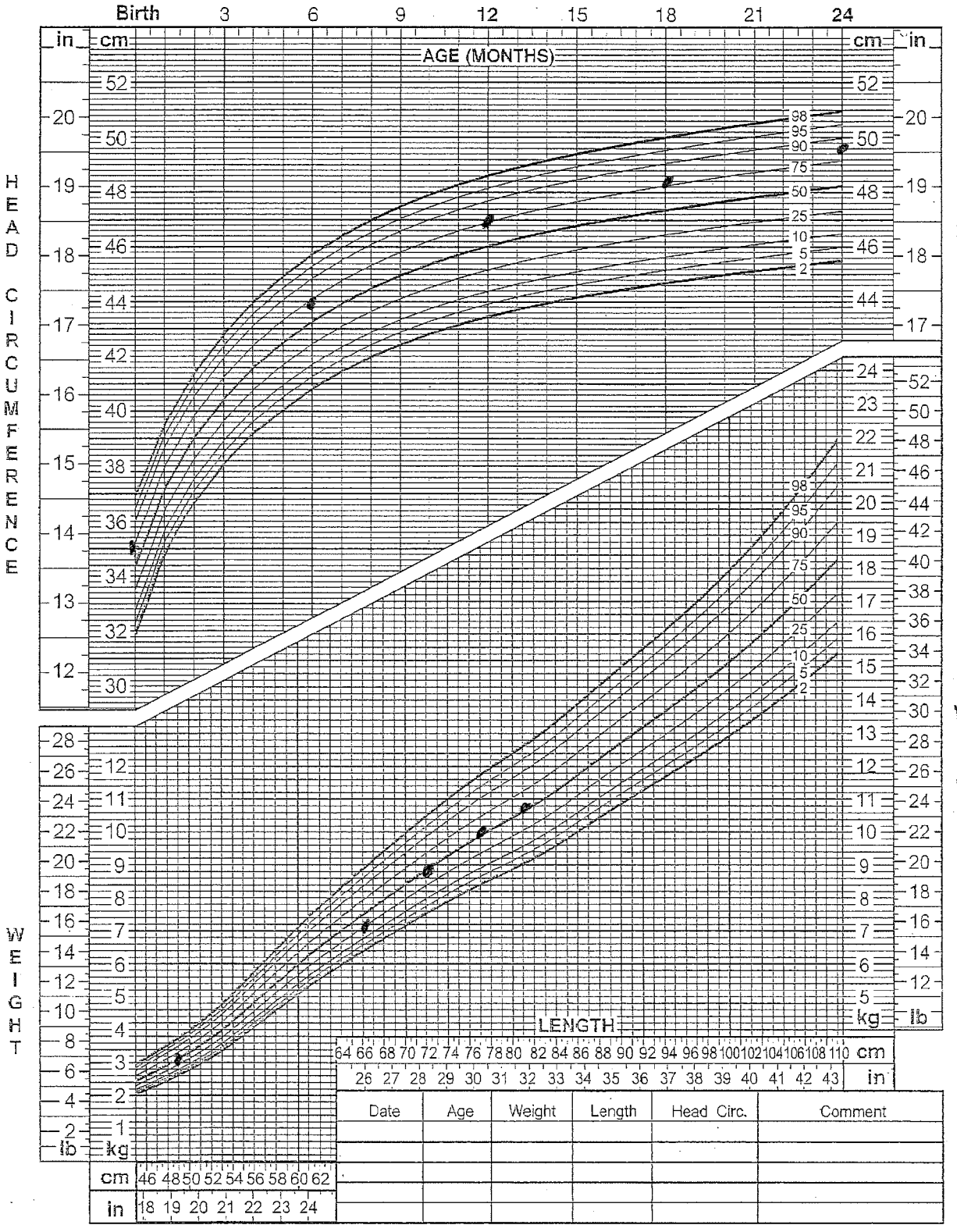
Birth to 24 months: Boys
Head circumference-for-age and Weight-for-length percentiles

NAME case 1 | Scenario A

RECORD # _____



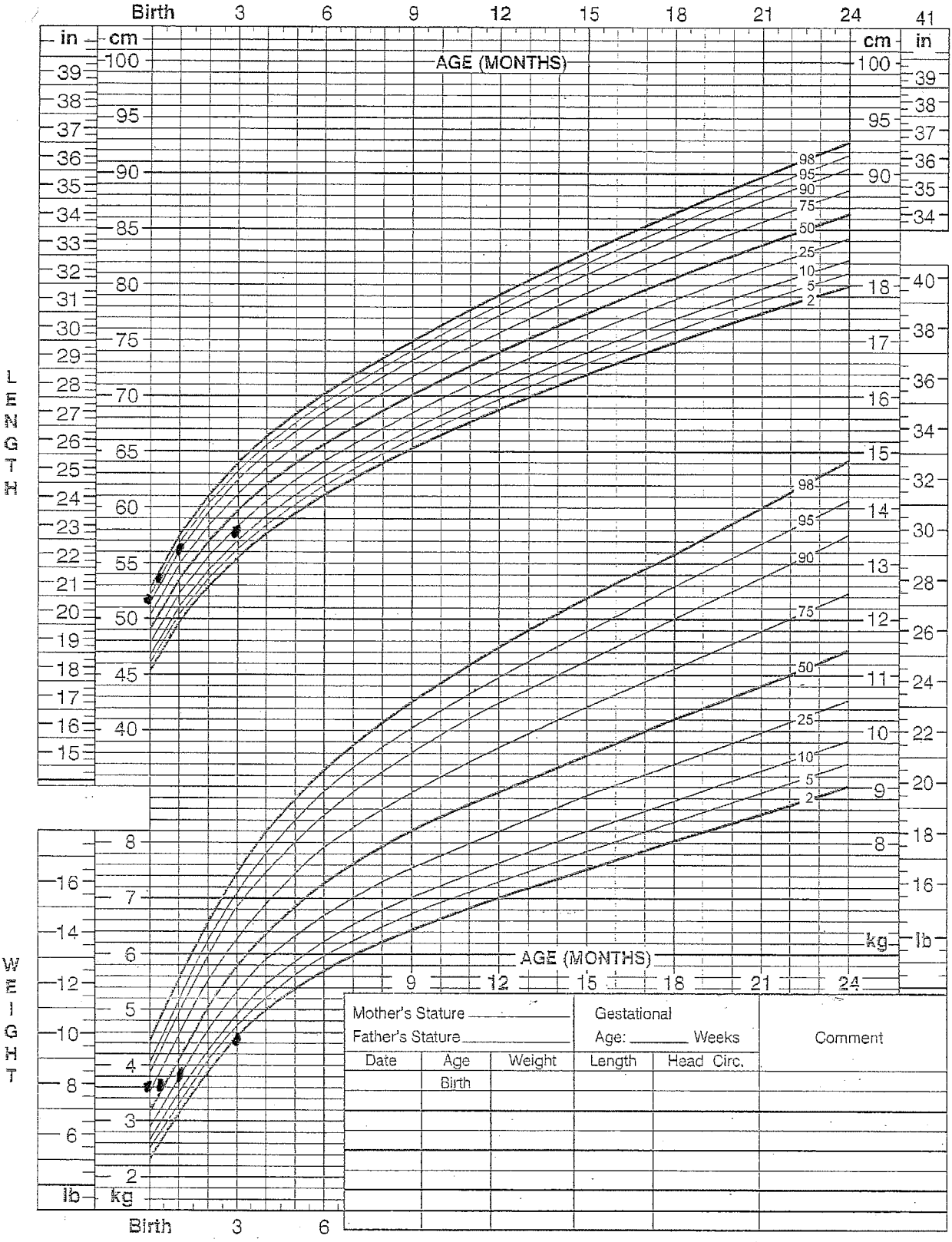
Date	Age	Weight	Length	Head Circ.	Comment

Published by the Centers for Disease Control and Prevention, November 1, 2009
SOURCE: WHO Child Growth Standards (http://www.who.int/childgrowth/en)

Birth to 24 months: Girls
Length-for-age and Weight-for-age percentiles

NAME CASE2/ScenarioB

RECORD #



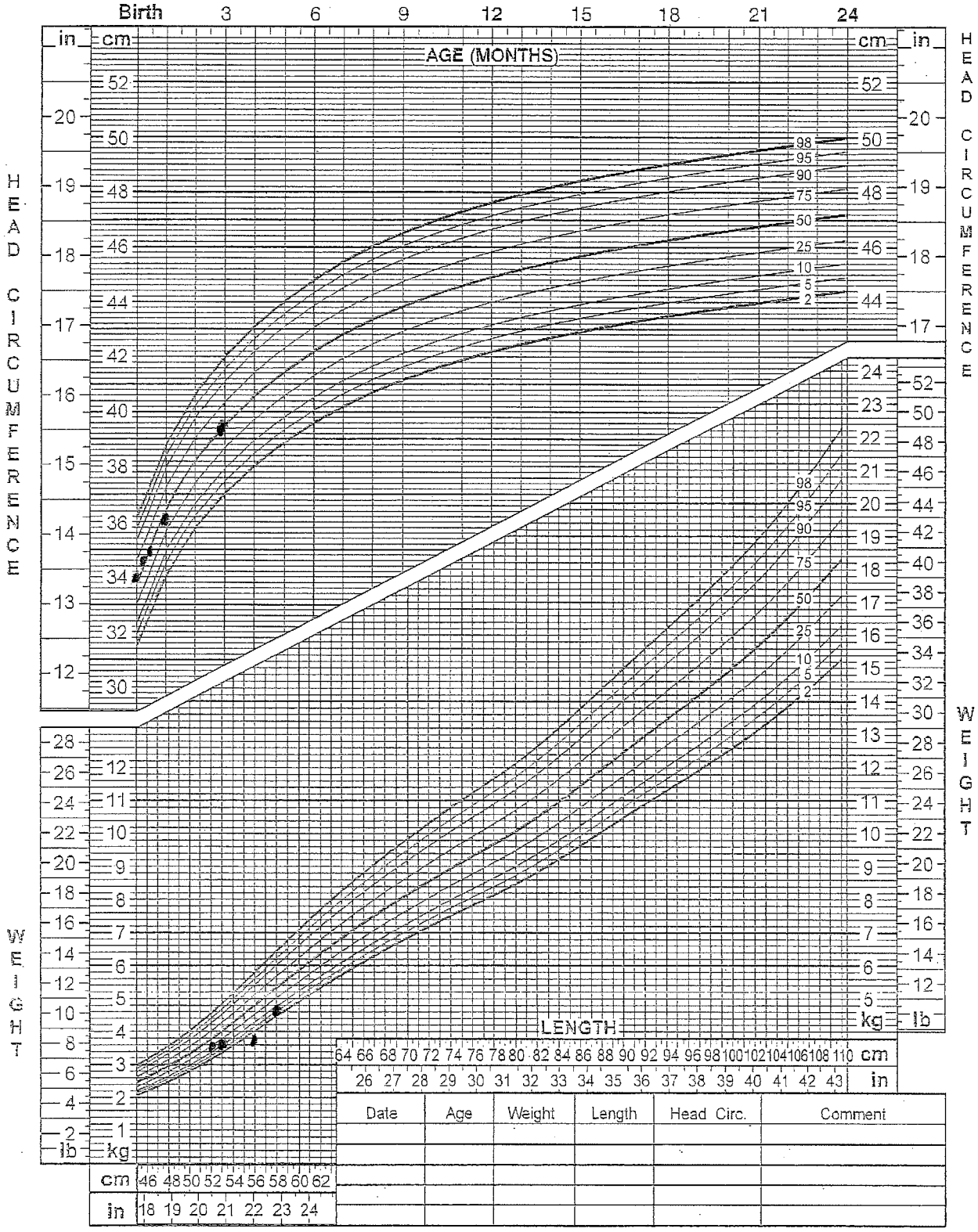
Mother's Stature ____ Father's Stature ____			Gestational Age: ____ Weeks		Comment
Date	Age	Weight	Length	Head Circ.	
	Birth				

Published by the Centers for Disease Control and Prevention, November 1, 2009
SOURCE: WHO Child Growth Standards (http://www.who.int/childgrowth/en)

Birth to 24 months: Girls
Head circumference-for-age and Weight-for-length percentiles

NAME Case 2 / Scenario B

RECORD # _____



Published by the Centers for Disease Control and Prevention, November 1, 2009
SOURCE: WHO Child Growth Standards (http://www.who.int/childgrowth/en)

2 to 20 years: Boys
Stature-for-age and Weight-for-age percentiles

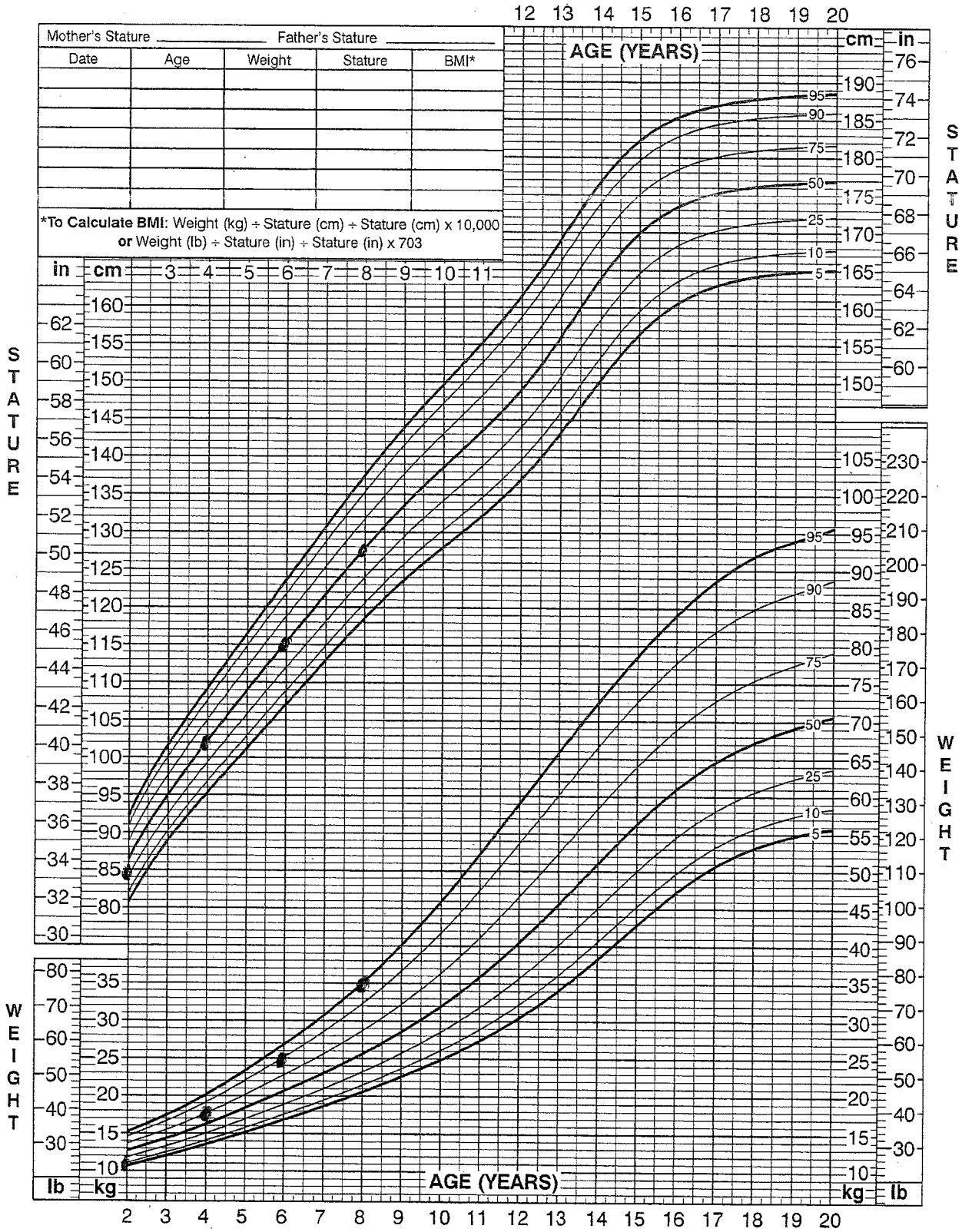
NAME Case 3 / Scenario C

RECORD # _____

Mother's Stature _____ Father's Stature _____

Date	Age	Weight	Stature	BMI*

*To Calculate BMI: Weight (kg) ÷ Stature (cm) ÷ Stature (cm) x 10,000 or Weight (lb) ÷ Stature (in) ÷ Stature (in) x 703



Published May 30, 2000 (modified 11/21/00).

SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts

CDC

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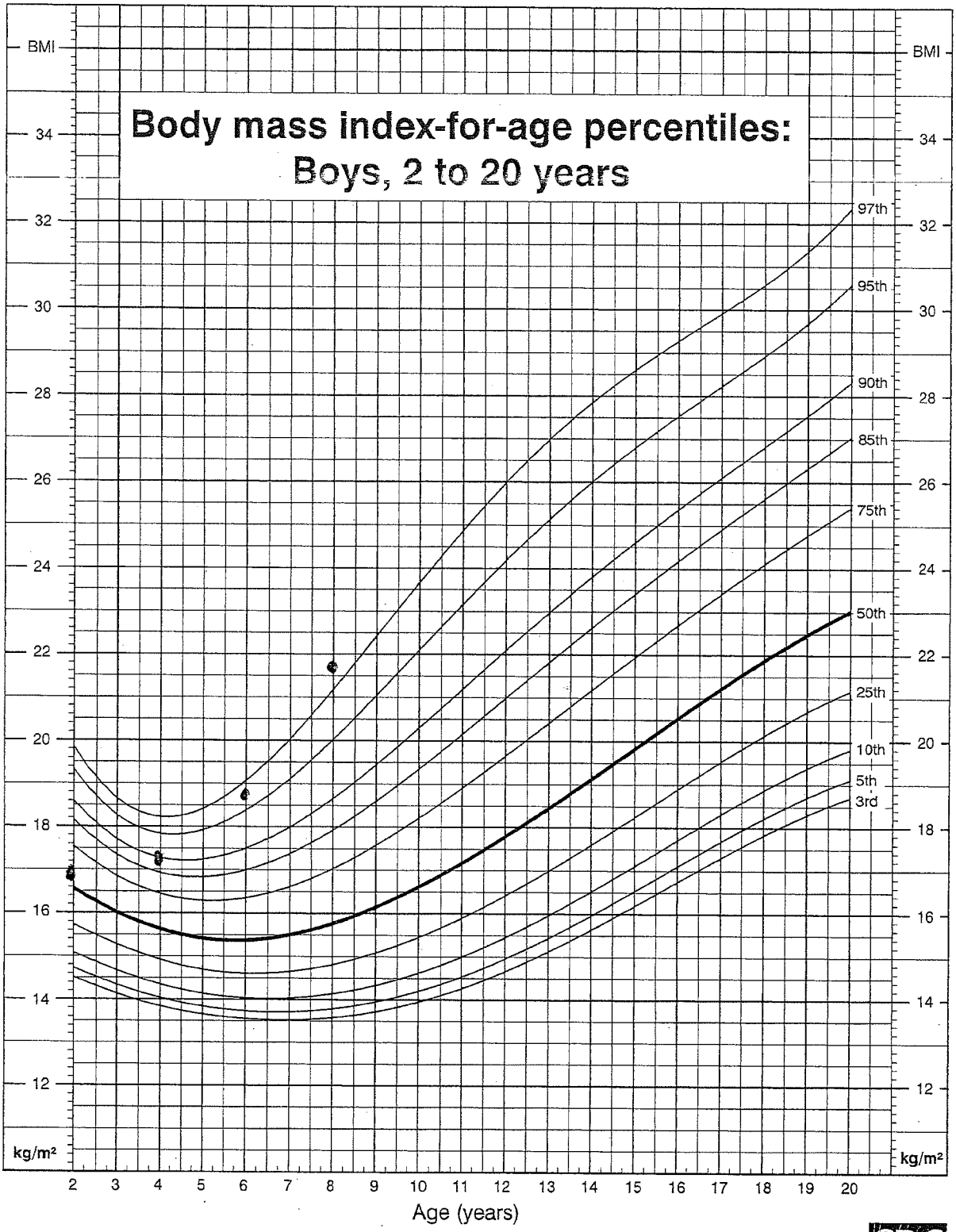
CDC Growth Charts: United States



Published May 30, 2000.

SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).

CDC

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2 to 20 years: Girls
Stature-for-age and Weight-for-age percentiles

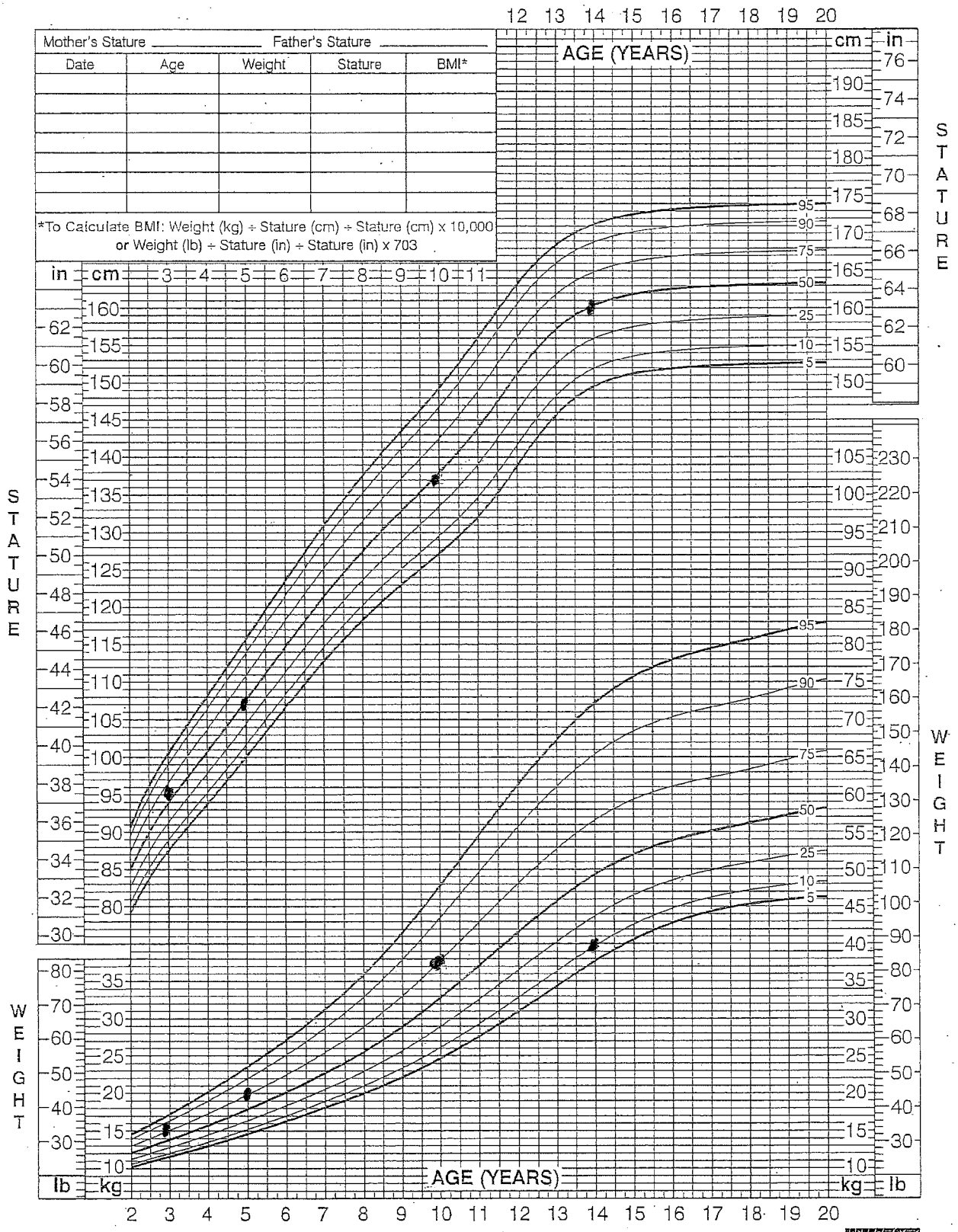
NAME CASE 4 / Scenario D

RECORD # _____

Mother's Stature _____ Father's Stature _____

Date	Age	Weight	Stature	BMI*

*To Calculate BMI: Weight (kg) ÷ Stature (cm) ÷ Stature (cm) x 10,000
or Weight (lb) ÷ Stature (in) ÷ Stature (in) x 703



Published May 30, 2000 (modified 11/21/00).
SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts

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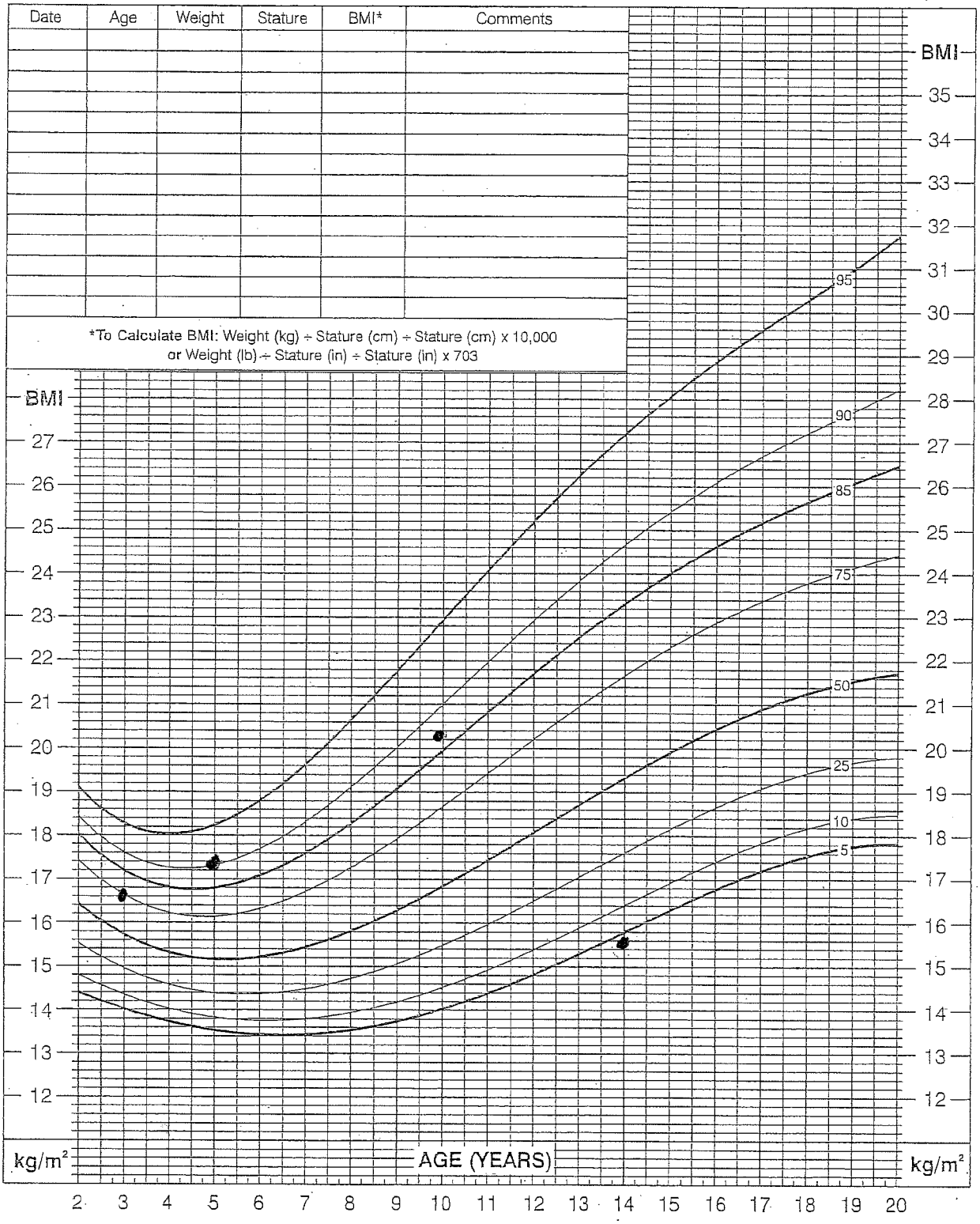
2 to 20 years: Girls
Body mass index-for-age percentiles

NAME CASE 4 / Scenario D

RECORD # _____

Date	Age	Weight	Stature	BMI*	Comments

*To Calculate BMI: Weight (kg) ÷ Stature (cm) ÷ Stature (cm) x 10,000
or Weight (lb) ÷ Stature (in) ÷ Stature (in) x 703



Published May 30, 2000 (modified 10/16/00).
SOURCE: Developed by the National Center for Health Statistics in collaboration with the National Center for Chronic Disease Prevention and Health Promotion (2000).
http://www.cdc.gov/growthcharts

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Tools, References and Resources

Approach to the Pediatric Patient in the Medical Setting

Taking a history & physical exam from toddlers, children, or adolescents & their caregivers

What is a "*Pediatric* Patient-Centered" Approach?

- Takes into account the patients' ***previous experience*** with medical illness
- Considers the patient's ***cognitive ability & developmental stage***
- Involves the patient in ***age-appropriate*** ways
- Views the patient and caregiver as "***the expert(s)"*** on the patient, including ***historical details*** and how the patient may ***cope*** with illness

Why does a "*Pediatric* Patient-Centered" Approach Matter?

- Improves collection of historical data & physical exam findings.
- Enhances the patient & family's ability to ***cope*** with illness.
- Improves ***adherence*** in-house & with out-patient regimens.
- It will **SAVE time** because it improves care!

Common Reactions of Pediatric Patients in the Hospital Setting

- **Overt or Active:** crying, resisting treatment**,** destructive to the environment
- **Passive:** decreased eating**,** decreased communication & activity
- **Regressive:** temper tantrums**,** toileting accidents**,** dependency on parents

General Principles When Communicating with Pediatric Patients

- ***Get their attention*** before speaking: engage the patient with a non-judgmental, non-specific comment about surroundings, TV, interests, etc.
- ***Get on the child's eye-level*** when speaking with him/her. (i.e., avoid standing over the bed.)
- ***Always introduce yourself and explain who you are (<u>including your role on the team, i.e. as medical student</u>)***. Don't be shy about showing your name on your badge.
- Don't ask if you are not ok with the possible answer. (e.g., Can I come in? Can I examine you?)
- ***Don't minimize or ignore*** the patient's experience or feelings (i.e., don't say "it's okay!")
- Ask children to ***repeat*** what you said in order to correct misunderstandings.
- ***BE HONEST!***
  - Always ***answer questions truthfully*** (i.e., it's okay to say "I don't know")
  - Use honest, simple, minimally threatening explanations that are developmentally appropriate.
  - Avoid reassurance with potentially false/vague statements (e.g., don't promise it won't hurt!)
  - In being honest, you avoid creating mistrust between the patient and the medical team.

Considerations When Communicating with Patients Based On Developmental Stage

Toddlers/Preschoolers

- Are afraid of being away from their parents.
- Have difficulty sitting still.
- May conceptualize illness as a punishment.
- Engage in concrete and "magical" thinking (e.g., I am in the hospital because I didn't listen to mommy last night)
- Often rely on imitation and look to others, especially parents, for how they should respond.

Childhood/School Age

- Begin to understand their bodies and how they work.
- Will likely have many questions.
- May be afraid that their bodies won't work or they will look different.

Adolescents

- Are very worried about privacy and how they look.
- Want to feel competent and have their opinions validated.
- Cognitively adolescents can understand most things about their care, but behaviorally they continue to require monitoring. Adherence difficulties are common, often due to poor education/transfer of skills and desire to fit-in.
- Adolescents can fail to see long-term consequences (e.g., explaining that poor diabetes control can lead to dialysis is not often a convincing way to improve adherence in teenagers with diabetes.
- Will often not be forthcoming with sensitive topics unless asked directly.

* * *

Involving and Interacting with Parents/Caregivers

- ***Always introduce yourself in full, <u>including role on team</u>***. Again, don't be shy showing your name on your badge.
- With younger children, try to meet with one or both parents alone first (although this can be challenging in the in-patient setting).
- With adolescents, it is often better – when possible -to meet with them first. Better yet: give adolescents the choice!
- Remember that caregivers have a ***unique understanding*** of their child's medical experiences and therefore provide key details of the medical history including:
    - Patient's experience of and expression of pain or discomfort
    - Patient's knowledge of or understanding of diagnosis
    - Treatment regimen
        - Medication dosage and tolerance
        - Previous hospitalizations & frequency of outpatient care
        - Previous degree of cooperation with each aspect of the regimen
        - Patient's previous level of involvement in care
        - Developmental history, school history, and cognitive functioning

* * *

Tips on Entering the Room & Doing the Physical Exam

- If you need to gown/glove, introduce yourself first with face visible then dress and enter.
- Seat yourself to include patient *and* caregiver at patient's eye-level
- With toddler/school-age patients, demonstrate use of the stethoscope or other instruments on yourself, a caregiver, a toy or a non-threatening body part (e.g. hand) first.
- If the child appears intimidated by you, try providing distance from the child and visibly engage with the caregiver(s) first before turning to the child. It allows the child to see a positive interaction between you and caregiver making the child more amenable to approaching you.
- Leave the most invasive or painful parts of the physical examination to the end.
- Use distraction as much as possible.

Explanation of Pediatric H&Ps/Pediatric Database

Reference: Bates' Guide to Physical Examination and History Taking, 8th ed. Chapter 17; pp 625-726

History:

CC: *Same as for adults*

HPI:

The information is the same for any medical problem. A careful and complete description of the presenting problem, with appropriate chronology is key. Always include pertinent positives/negatives and relevant family history or social history items. An important distinction is that much of the history will be observations from a third party (parent/caregiver). Important questions include: mood, activity level, eating pattern, urine output (specific as possible), sleep pattern and a description in the parent's words what the problem is, how it has changed, what they have tried to alleviate the symptoms and what they think is causing the child's illness.

Past Medical History:

Birth/Pregnancy History:

For infants, this component is particularly important. Often birth/pregnancy history is either relevant to the chief complaint or represents the majority of the PMH. Make sure to include these questions on all infants and any child with a problem that might be related to perinatal/neonatal issues. We usually include this in all children.
Maternal: mother's age, gravida, para, health problems and medications
Pregnancy: complications, prenatal care/labs/tests
Labor: Duration of membrane rupture and complications
Delivery: Gestational age (at a minimum whether term or premature), Mode (vaginal/C-section/forceps/vacuum), Apgars.
Neonatal: Duration of hospitalization and any events that occurred shortly after birth.

Medical history:

Any medical problems or hospitalizations with a brief summary and dates.
Specifically ask about the last health supervision visit.

Surgical history:

Any surgeries and dates

Allergies:

Allergies and reactions

Medications:

Any prescription medications, over the counter medications or herbs/supplements.
Include doses when known.

Diet:

Description of diet. Particularly important in the first year of life or if growth is abnormal. In infants c*omment whether breast feeding or formula feeding (and what type of formula and how*

much) in infants. In older children ask about typical diet or about concerns the parents may have.

Growth and Development:

This should be part of every history.
The way you ask the questions will change over time. Start with an open ended question to parents like "tell me what types of things your child is doing now". Childhood development is often categorized into 4 domains (social, fine motor, gross motor and language) and screening questions in each domain should be explored (see Denver developmental screening chart). In older children, make sure to ask about their hobbies, activities, school and friends. Assess academic achievement from parents/patient.

Immunizations:

In every patient ask about receipt of immunizations; there are standard immunizations given at specific ages. Parents sometimes have the immunization record; if the child has not received immunizations, delicately explore the reasons why. Saying "up to date" without checking actual documents or registries is an insufficient response, try to document what immunizations were given and when.

Family history (include genogram):

Explore any diseases that are in the family (e.g. hypertension, diabetes, or other problems resembling the child's problem). Also gently explore any miscarriages or childhood deaths in the family.

Social history:

Ask who lives in the home and whether there are other siblings and the state of the siblings' health. Explore childcare arrangements—whether it is the family, an in-home setting or center-based (larger classrooms). Inquire about what languages are spoken at home. If the child is verbal, directly ask them about school/daycare, friends, and favorite pastimes/toys, pets and siblings/family members. Identify sources of stress for the parents.

Environmental History:

Ask about smokers in the house; firearms; seatbelts, hot water heaters and car seats.
Travel history, pets and exposures to ill people.

Review of Systems:

This section is similar to that for adult patients. Remember that preverbal children cannot report many of the symptoms, so parental observation is the main source of information. A sample review of systems:

General: fever, weight loss, activity	*GU: frequency, dysuria ,urine output, hematuria*
Endocrine: change in habitus, weight gain	*Skin: rashes*
Eyes: crossing, pain, redness, drainage	*Neuro: seizures, loss of consciousness*
HEENT: Ear pain, drainage, hearing loss *Nose: Drainage, discharge, sinusitis* *Throat: tooth pain, sore throat, hoarseness*	*GI: feeding/appetite, vomiting, diarrhea, constipation, blood in the stool, abdominal pain*
Resp: cough, wheezing, apnea, cyanosis, difficulty breathing	*Musculoskeletal: joint swelling, tenderness, weakness*
CV: murmurs, chest pain	*Psych: mood changes, sleep problems*

Heme/lymph: bleeding, anemia, jaundice, swollen glands

Physical Examination:

The approach to the physical examination will vary with the age of the child. There are special maneuvers that are done at each age. There are specific benchmarks and appendices available in the clerkship manual and on the pediatric student website.

Vital Signs: HR RR Temp BP

Height_____ % Weight_____ % OFC_____% BMI_____

General: Describe the state of alertness, mood, and willingness to cooperate with the exam and whether the child is in distress

Head: For infants and children feel for the fontanelle; comment on the shape of the head

Eyes: Note presence of the red reflex in **all** children; check pupillary reaction, lids/conjunctiva
NB: Fundoscopic exam is difficulty to perform on infants but can usually be done in children over 5-6 years of age (The examination in this age group provides an excellent opportunity to see the optic disc and vessels).

Ears: Check for tenderness of pinna, discharge and gross assessment of hearing. Check tympanic membranes bilaterally with insufflation.

Nose: Check for discharge, turbinate color

Throat: Check for teeth/caries. Inspect the tongue, buccal mucosal and the posterior pharynx for erythema, enlarged tonsils. Feel for submucousal cleft palate.

Neck: Gently palpate neck for masses and assess range of motion (often by observation)

Lymphatic: Check lymph nodes in neck, axilla and groin.

Chest: Observe for signs of respiratory distress (nasal flaring, retractions and grunting). Normal respiratory rate varies with age. Palpate for tactile fremitus then auscultate anterior and posterior lung fields. Note the inspiratory:expiratory ratio (I:E ratio)

Cardiovascular: Observe for cyanosis, respiratory distress and hyperdynamic precordium. Palpate the precordium (for thrills); auscultate as in adults---pediatric heart rates are faster than adults thus distinguishing systole and diastole is more difficult. An S3 may be found in normal children (represents rapid ventricular filling). Many children will have benign murmurs (of no medical importance) ---train your ears to hear them! Palpate the peripheral pulses as in adults. (Femoral pulses are particularly important to feel in neonates when screening for coarctation of the aorta).

Abdomen: observe, auscultate and palpate as in adults. Children often have a palpable liver edge…always palpate from the pelvic brim up.

GU: See Tanner staging information in CLIPP and physical exam benchmarks in the clerkship manual and on the medical student website.

Musculoskeletal: Much of this portion of the examination is observation for tone and strength. In neonates, observe for increased or decreased tone…both are pathological. When children are older and can follow directions, the approach is similar to an adult exam. There are also special maneuvers to screen for congenital hip dysplasia (Barlow/Ortolani maneuvers).

Neurological: Much of this exam is by observation (especially the cranial nerves). Children have deep tendon reflexes just like adults that should be tested. Neonates have primitive reflexes that are considered normal (like an upgoing toe with a Babinski test).

Example H&P (Older Patient)

CC: AB is a 16-year-old female presenting to the Emergency Department with 4 days of bloody diarrhea, abdominal pain and fever.

HPI: AB was in her usual state of health until 7 days prior to admission when she started experiencing nasal congestion, clear rhinorrhea and low-grade fever (maximum temperature 99-100). She went to her primary care provider, had a CT scan of her sinuses done, was diagnosed with a sinus infection and was treated with a nasal spray (patient not sure what type). Five days prior to admission, she began having intermittent fevers to 101.9, which have continued until the time of admission. Four days prior to admission, AB started having severe (7/10) generalized abdominal pain, worse in her subgastrium. She describes the pain as constant, dull, non-migratory, not relieved by anything, including acetaminophen, and exacerbated by eating. During the three days prior to admission, she has also had 3-4 episodes of bloody red diarrhea with the abdominal pain. She says that having a bowel movement makes her abdominal pain worse. AB has also had 2 episodes of nonbloody, nonbilious emesis in the past two days. She has noticed increased fatigue and has lost 2 lbs in the last week, though she still has a good appetite.

Notably, AB was seen approximately 5 months ago in the Emergency Department in Everett with abdominal pain. She had no diarrhea or emesis at that time. Her stool guaiac was negative, but was diagnosed with iron deficient anemia with a hemoglobin of 12.2 g/dL. She was sent home on iron supplements and no clear diagnosis for her abdominal pain. Since that episode she has noticed intermittent abdominal pain, fatigue and has lost 10 lbs.

She denies any rashes, arthralgias or myalgias, eye discharge or inflammation, oral lesions, cough, jaundice, petechiae or easy bruising. She has normal urine output. Her past medical history is also remarkable for cholecystitis requiring cholecystectomy at the age of 10. Her travel history is significant for being in N. Europe on a cruise 3 months before the onset of symptoms. She has two dogs and one cat. Her LMP was last week and was normal in volume and duration. AB does not have a family history of inflammatory bowel disease or rheumatological diseases.

Past Medical History:

BH: Term, vaginal delivery, no complications

PMH: No previous medical problems. Abdominal pain, cholecystitis and anemia described in the HPI.

G0P0, regular menses

Immunizations: Up to date, including HPV and influenza (checked online vaccine registry)

Past Surgical History: Cholecystectomy, 6 years prior to admission (see HPI)

Medications: Ferrous sulfate for anemia
Multi-vitamin
No over the counter meds or alternative therapies

Family History: No history of inflammatory bowel disease (Crohn's or ulcerative colitis); No history of childhood rheumatological diseases or systemic lupus erythematosus. Paternal grandmother has psoriasis. Maternal grandmother with osteoarthritis. Paternal grandfather with heart disease and diabetes. No sick contacts.

Social History: Lives in Marysville with Mother, step Father, 15 mo brother

Is in the 11th grade, same school as last year; good grades (A's and B's).
Plays soccer and tennis; sings in the school choir
Denies EtOH, nicotine, and other drug use.
Is not and has not been sexually active. No current partner (boyfriend or girlfriend)

Review of systems:

General: See HPI
Endocrine: no change in habitus, weight gain
Eyes: see HPI; no redness, no blurred vision or double vision.
Ears, Nose, Throat:
Ears: ear pain or drainage, no hearing loss.
Nose: see HPI
Throat: No tooth pain, sore throat or hoarseness
Cardiovascular: No chest pain or murmurs
Genitourinary: normal urine output, no frequency, dysuria, hematuria
Gastrointestinal: see HPI
Musculoskeletal: See HPI
Hematology/Lymphatic: see HPI; no jaundice or swollen glands
Psychiatric: no mood changes or sleep problems

Admitting PE:

Vitals: T 37.8 HR 140 RR 18 SaO2 97% on RA BP 113/82 Pain 5/10
Weight 42.5 Kg (< 3%) Height: 158 cm (25%)
General: well developed, skinny young female, looks fatigued w/o significant distress
Skin: pale skin, no rashes or erythema, no petechiae or bruising
HEENT:
Eyes: PERRLA, full EOM, conjunctiva without exudates; sclera anicteric without injection, no periorbital edema
Ears: Pinna and canals normal; TMs gray w/o erythema
Nose: nasal turbinates are slightly swollen and mildly pale with some clear rhinorrhea
Oropharynx: dry lips, mildly dry oral MM, 2+ tonsils w/o exudates or crypts, no pharyngeal erythema.
Neck: Supple with full range of motion; non tender to palpation. Thyroid soft and without nodules.
Lymphatic: no cervical, supraclavicular, axillary, inguinal adenopathy.
Chest: Symmetric inspiration, clear to auscultation bilaterally with no wheezes, crackles or rhonchi.
Breasts: Tanner stage V
CV: Tachycardic, regular rhythm, prominent PMI over 5th intercostal space ~ MCL, normal S1 and S2, I-II/VI systolic ejection murmur over L sternal border, < 5cm CVP; 1+ radial and pedal and inguinal pulses which are symmetric, capillary refill 2-3 seconds.
GI: several small well healed scars from previous lap cholecystectomy, active bowel sounds, tenderness on light palpation in all 4 quadrants and worse in LLQ and RLQ, + guarding in LLQ, + peritoneal signs by moving the patient and rebound tenderness in LLQ, negative obturator and psoas signs, liver edge and spleen not felt. Liver span estimated to be 7 cm. No masses palpated.
Rectal examination: normal tone, no masses; no fissures; guaiac positive.
GU: 3 skin tags in the peri-anal region, no abscesses, erythema or fistulas in perineal region, tanner stage V genitalia and pubic hair.
MS: full ROM w/o pain, no erythema or increased warmth over joints, no effusions. No clubbing

Neuro: CN II-XII intact, Muscle strength 4-5+ throughout, 1+ and symmetric patellar reflexes, sensation to light touch intact in all extremities

Laboratory:
CBC: 8.1 WBC (28%pmns, 33%lymphs, 12%mono, 23%bands); Hct 27.4; MCV 89; RDW 13; RBC morphology is normal; Platelets 622K
U/A: pH 6.5; 1.025 sp gravity; tr protein; 0-5 WBC; 0-5 RBC; LE neg; Nitrite neg
Chemistry: Na 143, K 3.8, Cl 103, HCO3 29, BUN 11, Cr 0.7, Glu 97
CRP 4.3
ESR 114

Assessment:
AB is a 16 y.o. female with several month history of intermittent diffuse abdominal pain, fatigue, ten pound weight loss, with an acute course of profuse bloody diarrhea with fever. Her physical examination is remarkable for signs of peritonitis and volume depletion without signs of shock. Notable laboratory data include elevated inflammatory markers, anemia, normal platelet count and a left shift on her CBC.

AB's bloody diarrhea with fever and abdominal pain can be from infectious enterocolitis (parasite and bacteria), inflammatory bowel disease (IBD), malabsorptive (celiac), vasculitis (HSP, PAN), carcinoma of ileum or colon, carcinoid tumor, intestinal lymphoma as well as other less likely diseases. Given AB's long standing illness course with weight loss and anemia it is likely that she has a chronic illness thus making inflammatory bowel disease (IBD) the most likely diagnosis. Other chronic illnesses such as carcinoma, lymphoma or carcinoid tumors are unlikely in this age group. There are no specific signs/symptoms that differentiate ulcerative colitis (UC) and Crohn's disease (CD). Weight loss, bloody diarrhea, abdominal pain, fever and anemia can occur in both CD or UC. Given her skin tags, and past cholecystitis, it is more likely that she has CD than UC. In addition, she has significant elevation of CRP and ESR, and a left shift on her CBC indicating severe acute inflammation, which is all consistent with inflammatory bowel disease.

An infectious agent is less likely because of the chronic course, no significant travel risks, lack or suspicious foods eaten and no sick contacts. While she did travel before the onset of the symptoms, the travel was not temporally related to her symptoms. Possible agents could include E. coli O157:H7, E. coli (other pathogenic strains), Shigella, Salmonella, Yersinia enterocolitica, C. jejuni, C. difficile, amebiasis, giardiasis and cryptosporidium. Stool culture and O&P exams are necessary to diagnose an infection. Celiac disease rarely presents with bloody stools, but could explain her weight loss and abdominal pain. She has no other features of vasculitis, such as rash, swollen joints or kidney dysfunction to suggest these possibilities as the cause of her symptoms. However, if no unifying diagnosis is determined, further consideration and testing of these causes of her symptoms should be pursued.

AB's anemia is normocytic with an MCV of 89 and a Hct of 27.4. Typically iron deficiency anemia is microcytic making this diagnosis less likely. Her RBC morphology is normal, making intravascular hemolysis less likely. The anemia is most likely due to acute blood loss, and/or anemia due to chronic inflammatory state and poor iron utilization. Her anemia can also be complicated by B12 or folate deficiencies due to poor absorption. Her RDW is within normal range. If needed, a ZPPH, iron studies, B12 and folate levels, and reticulocyte count can be ordered to work up a continued anemia. Since she is likely volume depleted as suggested by her tachycardia, she may be more anemic that she appears to be at the time of admission.

Plan:

Bloody Diarrhea:

1. KUB for focal abdominal pain. Monitor abdominal exam for increased pain, nausea, continued bloody diarrhea and signs of obstruction (bilious emesis, severe abdominal pain, leukocytosis, SIRS syndrome, sepsis).
2. Consider H2 or PPI for gastritis.
3. Consult gastroenterology for consideration of diagnostic endoscopy.
4. Obtain Stool Cx, stool O&P, C. difficile toxin screen. No empirical antibiotics but monitor closely for clinical deterioration or signs of sepsis. If C. difficile toxin positive, initiate treatment.

Anemia:

1. Recheck hematocrit x 2 if she continues to have bloody diarrhea
2. Consider transfusion if Hbg < 8.5 mg/dL. It is very possible that she will need a transfusion because she is volume depleted and has on going hematochezia which will make her hematocrit lower.

Fluids/Electrolytes/Nutrition:

1. FEN: D5 + ½ NS + KCl 20meq/L @ 100cc/hr. Monitor urine output to determine if additional normal saline boluses will be needed to correct volume depletion. Continue IV fluids until she is taking adequate PO and vitals are stable. Monitor vitals for orthostasis. Optimize fluids to maintain normal heart rate for age.
2. Clear diet, ad lib.

Hospital Course:

AB was admitted and had a KUB that showed edema of the descending colon but was otherwise unremarkable. She was placed on NPO for increasing guarding and peritoneal signs and had a CT abdomen with oral contrast. The CT scan showed colitis in the sigmoid colon and rectum, but no abscess, strictures or free peritoneal fluid. She was place on clear diet. Due to her long standing weight loss and anemia an albumin level was ordered and was 2.4, indicating chronic malnutrition and/or significant protein loss. Stool exams grew out non-EHEC E. coli and were negative for C. difficile toxins A & B, Shigella, EHEC, Salmonella, C. jejuni, Y. enterocolitica and ova and parasites. She was given a GoLytely bowel prep and an endoscopy and colonoscopy was performed with biopsies. It showed mild esophageal inflammation, chronic gastritis, a normal duodenum, normal terminal ileum, a small patch of cecal inflammation, and profound erythema, pus and colitis of the descending, sigmoid colon and rectum. Path reports were sent and revealed mild esophagitis w/predominant lymphs, gastric and antral chronic inflammation with cellular atypical changes and mixed WBC infiltrate in the lamina propria and epithelium w/no organisms, terminal ileum was normal, cecal inflammation with crypt distortion and microabscesses, left colon severe inflammatory reactions with crypt distortion and microabscesses. The inflammation extended into the lamina propria and there were no granulomas detected in the biopsies.

The patient was then placed on metronidazole for anaerobic coverage and anti-inflammatory affects, mesalamine for immune modulation, lansoprazole for gastritis, and ferrous sulfate for anemia and started on a GI 1 diet. She responded well to the p.o. intake and was discharged home. Discharge diagnoses were IBD, likely Crohn's disease due to the diffuse inflammation, and iron deficiency anemia.

Example H&P (infant)

ID/CC: 7 mo old ex-40 week AGA healthy infant presents w/ a 3 month history of failure to thrive and a 1 mo history of recurrent upper respiratory symptoms

HPI
TS's mother believed her infant to be in good health until earlier today when during a routine primary care visit his pediatrician was alarmed by his thin appearance and fall in his weight for age from the 30th percentile to the 2nd over the past 3 months. His length and OFC for age also crossed percentiles during this period but have remained on the normal curve. The mother denies any recent changes in TS's appetite and explains that he eagerly breastfeeds every 2-3 hours for 5-10 minutes at a time during the day (without nighttime feedings from 10 pm to 7 am) plus soft baby foods 1-2 times per day. She believes that this "is approximately the same amount that her two older daughters ate at that age". She also believes that her milk supply is "good" because she is easily able to express milk by squeezing her breast. She is also currently 16 weeks pregnant.

She denies TS having symptoms of fatigue, diaphoresis or rapid breathing during feeding as well as post-feeding fussiness, emesis or diarrhea. He has 2-3 wet or mixed diapers per day and his stools are brown in color without melena, clay color or bright red blood, and they are not particularly foul smelling. TS's development thus far has been appropriate for age and growth was following a normal curve at least until 4 months of age. Neither parent has a known history of HIV or other sexually transmitted infections nor any high risk behaviors. There is no history of recent travel or exposure to persons infected with TB. He has had one newborn metabolic screen at 1 day old which was normal; the second screen was not obtained.

Of note, TS has also experienced approximately 1 month of recurring fever, cough and rhinorrhea that lasts for 3-4 days at a time. He is having some of these symptoms today with a transient fever to 101.2 earlier today but no wheezing, stridor or increased work of breathing. He has had all of his childhood immunizations up to the age of 4 months with the exception of rotavirus and influenza. Several family members have also had these symptoms all of which have self-resolved. The mother describes no changes in TS's appetite or feeding frequency/duration while ill.

ED Course
On arrival to SCH ED, TS was afebrile and all vital signs were within normal limits. He was given a 300 ml NS bolus via peripheral IV. CBC, electrolytes, CRP and a viral panel were obtained. He arrived to the floor shortly thereafter.

Birth Hx
Born at 40 +3/7 AGA to G3P2 mother via uncomplicated vaginal delivery. APGARs at birth were 7 at one minute, 8 at five minutes. The mother's screening was remarkable only for lack of Rubella immunity. Neonatal course remarkable for mild jaundice (Tbili max = 6.8) which required no intervention and initial difficulty latching. Both resolved prior to discharge.

PMH
Stable/Resolved Problems
1. Neonatal jaundice: see Birth Hx
2. Difficulty breastfeeding: see Birth Hx

PSH
None

Allergies
None known

Medications
No medications or supplements

Diet
See HPI.

Growth and Development
Weight for age: 30th percentile (age 4 months) -- 2nd percentile (age 7 months)
Length for age: 85th percentile (age 4 months) --15th percentile (age 7 months)
OFC: 70th percentile (age 4 months)--40th percentile (age 7 months)

TS is able to sit up on his own with good head control, starting to crawl, reaching for objects, stacking blocks and babbling. His mother reports that he is developing similarly to his sisters, even during the time he has lost weight.

Immunizations
Routine vaccinations up to age 4 months with the exception of Rotavirus and Influenza

Family Hx
Hyperthyroidism: paternal grandfather and cousins
Type II DM: maternal grandmother
Both parents and 2 older siblings with no significant PMH

Social/Environmental Hx
Lives in home in Everett, WA with mother, father and two sisters (ages 2 and 4). Mother stays at home while father works outside of the home as an engineer during the day. No additional care providers. TS does not attend day care. Mother does not have any concerns for safety in the home.

Exposures: both parents are non-smokers, cleaning supplies and toxins out of reach, pets include 2 Guinea pigs.

ROS
Gen: +transient fevers over past month (see HPI), No chills or sweats, activity at baseline,
Endo: no change in habitus, + weight loss (see HPI)
HEENT: No head trauma, + stork bites over bilateral eyelids, No eye crossing, no rhinorrhea, +moderate clear nasal drainage, no ear pain, drainage, or hearing loss, + thick white coating on tongue and lips, no hoarseness.
Resp: + intermittent wet cough (see HPI), no snoring, apnea, increased work of breathing, cyanosis or wheezing
CV: no murmurs, no fatigue, sweating or tachypnea with feeding, no cool extremities
Heme/Lymph: no easy bruising or bleeding, anemia, jaundice or lymphadenopathy
GI: no signs of abdominal pain, normal appetite, no dysphagia or choking, no hematemesis, diarrhea, melena or hematochezia, no constipation
GU: No change in frequency, urine output or urine color, no hematuria
Neuro: no seizures or LOC
MSK: no joint swelling or erythema, no asymmetry or weakness
Skin: +diaper rash
Psych: no changes in sleep pattern or appetite

Physical Examination:
Vital Signs (on admission)
Weight: 6.322 kg (2%); Height 65cm (15%); Head Circumference 42.5 cm (40%)

HR: 148 BP: 81/67 RR: 32 SpO2: 100% on RA Temp: 37.6

Gen: pale and thin appearing, alert and interactive, consolable when fussy

HEENT
Head: NC/AT, anterior fontanelle 1 cm and flat, sutures normal with no overriding.
Eyes: normal position, normal red reflex, PERRLA, EOMI, conjunctiva somewhat pale, no scleral icterus
Ears: pinna normally positioned; no drainage, external canal without erythema or exudate, TMs slightly red bilaterally but no bulging or pus.
Nose: non-purulent drainage, nares patent, no nasal flaring
Throat: 2 erupting bottom teeth, palate intact, posterior pharynx without erythema or exudate, normal appearing tonsils without pus, tongue, buccal mucosa and soft palate with thick white plaque

Neck: no masses; thyroid normal size and consistency

Lymphatic: shotty anterior cervical lymphadenopathy; no inguinal or axillary lymphadenopathy

Chest: normal inspiratory: expiratory ratio, symmetrical chest expansion, no wheezing, rales, ronchi or stridor, no increased WOB

CV: RRR, no murmurs, rubs or gallops, brachial, femoral and dorsalis pedis pulses full and symmetrical, no cyanosis

Abdomen: soft, non-tender, non-distended, no masses, 1 cm reducible umbilical hernia, normoactive bowel tones, liver edge is palpable 2 cm below the right costal margin; no spleen tip is palpable.

Back: normal curvature, no sacral dimples or hair tufts

MSK: normal ROM, joints without erythema or swelling

GU: Tanner stage 1, normal genitalia, anus patent, erythematous patch with satellite lesions along inguinal folds and beneath scrotum

Neuro: alert and interactive
Cranial nerves: II-X and XII intact by gross examination
Motor: 5/5 strength upper and lower extremities
Tone: normal, no fasciculation
Sensory: responsive to light touch
Reflexes: 1+ patellar reflexes, +Babinski, no moro, rooting, palmar or plantar grasp
Cerebellar: unable to assess
Gait: unable to assess

<u>Labs/Studies</u>
CBC w/diff
WBC: 8.6
Hb: 10
Hct: 30 (L) MCV 72 (L)
Plts: 167K

Electrolytes: Na 139 K 3.9 Cl 110 HCO3 25 BUN 10 Cr 0.3

CRP: 1.4 (H)

Viral PCR: + for RSV

Assessment/Plan

7 month old previously healthy and developmentally normal breastfed male presents with FTT since last assessed by PCP at age 5 months. He has a normal appetite without vomiting or diarrhea, no loss of developmental milestones but 1 month of recurring URI symptoms of fever, cough and rhinorrhea. Physical examination is remarkable for white plaques on his tongue/buccal mucosa, rhinorrhea, and erythematous diaper rash. Viral PCR positive for RSV.

Problem 1: Failure to thrive

TS meets FTT criteria due to a decrease in weight from 7.0 kg at age 4 months to 6.32 kg at age 7 months (from approximately 30th percentile to 2nd percentile on weight for age). His length and OFC have also crossed percentiles but remain on the normal curve. The DDx for FTT broadly includes nutritional causes (neglect, abuse, inadequate feeding) vs metabolic/increased demand causes (CHD, diabetes, RTA, malignancy, inborn errors of metabolism, etc) vs infectious (UTI, HIV, TB) vs. malabsorption causes (CF, cow-milk-protein intolerance, IBD, GERD, pyloric stenosis, etc).

The most likely cause of FTT in this previously healthy and developmentally normal 7 mo male is inadequate nutrition both because it is epidemiologically most likely and because there are no obvious signs/symptoms of organic causes. There is also some suggestion from his mother's lactation history and current 16 week pregnancy that her breast milk may be inadequate to support this infant. In addition, TS is being offered only once daily table foods which is likely too little to make up for deficiencies in breast milk. Poor latching and inadequate frequency of feeding are unlikely given the mother's ability to provide detailed history of his feeding schedule. UTI and prolonged URI are also possible given the recent fevers and accompanying symptoms, however these would be unlikely to cause such a dramatic change in growth over a 1 month period in the setting of normal PO intake.

The report of recurrent URI symptoms, mouth plaques c/w thrush, and yeast infection also raises suspicion for possible congenital immune deficiencies such as severe combined immune deficiency (SCID), selective IgA deficiency or x-linked agammaglobulinemia. SCID commonly presents with FTT and thrush but usually also includes chronic diarrhea which TS has not had. I would also not expect normal growth for the first 4 months of life with this etiology. Agammaglobulinemia fits TS's age (decreased maternal IgG by 6 months) but he has not experienced recurrent bacterial infections and tonsils are present. Selective IgA deficiency is possible in the setting of recent recurrent URI symptoms but usually doesn't present as FTT as the first symptom; I would expect more sinopulmonary symptoms. HIV and TB are much less likely given no maternal or paternal h/o HIV infection or risky sexual behavior and lack of travel or exposure to contacts with TB. Malignancy should also be considered given his recent pattern of fevers and weight loss; however this is also less likely than inadequate feeding. Neglect and/or abuse should be considered although there are no overly concerning findings on social history or physical exam to raise significant suspicion.

Other possibilities including CHD, CF, milk protein intolerance, IBD, GERD, pyloric stenosis, diabetes, inborn errors of metabolism, and RTA are least likely given the lack of suggestive history and physical exam findings. CHD would likely present as fatigue, diaphoresis, tachypnea during feeding. CF would present with greasy, foul smelling stools and possibly rickets. He has no h/o high blood glucoses or polyuria to suggest diabetes. Milk protein intolerance and IBD would be suggested by bloody stools of which there is no history. GERD and pyloric stenosis would present with significant post-feeding symptoms (projective vomiting, fussiness, tachypnea). Inborn errors of metabolism would have likely been discovered on his newborn screen (although he did not have a 2nd screen) and presented earlier in infancy. I would also expect developmental delays with this etiology. RTA or chronic renal insufficiency would be considered if urinalysis and/or electrolyte abnormalities were present (elevated BUN, creatinine), but there is no e/o this currently.

-Pre- and post-feeding weights to determine adequacy of breast feeding
-Calorie counts
-Strict I&O's
-Nutrition and lactation consults

-Social work consult to r/o psychosocial contributors
-UA to r/o UTI and renal causes
-Stool elastase to r/o malabsorption
-Q6 vital signs
-No maintenance fluids at this time, reassess if become tachycardic or hypotensive
-Nutrition and lactation consults as above
-Consider re-feeding labs

Problem 2: Anemia
TS's anemia is most likely secondary to combined iron and possibly folate deficiencies given current state of malnutrition. Will want to reassess as outpatient if does not resolve with improved nutrition.
-Multivitamin supplementation
-Consider infant formula if breastfeeding determined to be inadequate
-F/u CBC as outpatient

Problem 3: URI symptoms (low grade fever, cough, rhinorrhea)
TS has been afebrile since arrival to the ED but most likely etiologies of transient low grade fever, cough and rhinorrhea in this 7 month old infant w/viral panel positive for RSV and no increased WOB is URI. Recent contacts with similar, self-resolving symptoms support this diagnosis. UTI or other bacterial infections are also possible but less likely given the long duration and self-resolving nature of symptoms.
-Respiratory viral PCR
-UA and CBC as above to screen for other common causes of fever

Problem 4: Elevated CRP
Likely 2/2 a combination of malnutrition and current respiratory illness.
-Address malnutrition as above
-Monitor for signs of worsening illness

Problem 5: Diaper rash/ mouth plaques
Likely 2/2 yeast, such as Candida, given the location and satellite lesions. Mouth/tongue plaques also c/w oral candidiasis.
-Oral nystatin and topical

Disposition
-home, pending ability to gain weight in hospital and parental education regarding adequate intake or determination of organic cause.

Pediatric Physical Examination

Students often feel intimidated about performing the pediatric physical examination.

We have provided some tools to make learning this skill easier and hopefully fun for you!

A few pearls for the examination:

- You may have to do the physical examination out of order in many children. Be flexible.
- You can't stop and write down your findings as you go. You have to remember what you saw/heard/felt. Write it down afterwards.
- Save the most invasive parts for last (ears and mouth)
- Children over 5 can usually follow directions, so their examination is similar to adults
- Enlist the caregiver's help as needed!
- Have fun and think of how to make this a game (for yourself and your patient)

Review the following video that provides additional tips for performing physical examinations in children. The first video is found on the COMSEP website (Council of Medical Student Education in Pediatrics—the national pediatric clerkship organization).

http://www.comsep.org/educationalresources/multimediateachingtools.cfm

After you have watched the video, look through the Physical Examination Benchmarks and Appendices.

Watch your preceptor/faculty member/resident do an exam and then go for it!

Use the Physical Exam CEX as a way to track your progress.

Remember, the more you practice, the better you will become. Ask the people you work with to show you how to do the physical examination, be honest if you don't hear or see a physical exam finding. And remember, the more you practice….

Benchmarks for the Pediatric Physical Examination

General Approach

One should be flexible when examining children. You must establish rapport with the child and the parent before starting the exam. In general, children between the ages of 8 months and 4 years require the most flexible approach. For younger children you should perform the most "invasive" part of the examination (e.g. the head and neck examination) last.

Do

Use an age appropriate approach to the examination

- Newborn: Place the newborn on the examination table. Conduct a general assessment by observing the child and then listen to the heart and lungs; once those are accomplished proceed with the remainder of the exam
- Infant/Toddler: You may examine the child in the caregivers lap. Begin slowly with a non-threatening part of the examination, perhaps the hands. Then move to the heart and lung exam. End with the head and neck examination, focusing on the ears and throat last.
- Older child/adolescent: The sequence of the examination is the same as that of the adult. Pay particular attention to modesty and whether parents will remain in the room.

Assess the child's growth

- Review the child's height/weight (and head circumference for infants) and percentiles. Determine BMI if not done.
- Plot/review growth measurements:
  - Assessing growth is a part of each pediatric encounter because this is a sensitive measure of overall health of the child. There are growth curves available for different age groups (0-36 months, 2-20 years). Review growth curves generated by an electronic health record or plot the data yourself for review.
- Weight:
  - Infants should be weighed naked or in a diaper only. If the weight is too high/low recheck the weight and accuracy of the scale. Fluctuations in weight influence management of children, especially those who are hospitalized.
- Height
  - Most children younger than 2 years cannot/will not stand by themselves so their length is measured instead of their height. There are measuring devices to assist with accurate assessment. If there is any concern about growth, measure the length at least twice.
- Head circumference:
  - The tape should encircle the most prominent portions of the head. For increased accuracy, measure three times; it is easy to make an error. Do not start your examination with this measurement as the infant may start crying!
- Body mass index (BMI)
  - BMI should be calculated in all children and followed in addition to height and weight. To calculate BMI:
    - Wt (kg)/ stature (cm) / stature (cm) x 10,000
  - Or Wt (lb) / stature (in) / stature (in) x 703
- Special situations:

- Premature infants: the growth of premature infants is typically "corrected" for their premature birth. Although special growth charts are available, many pediatricians plot the current weight at the "chronological" age and then subtract the months/weeks of prematurity (e.g. if the child was born at 30 weeks they subtract 10 weeks) and plot the growth parameters at the "corrected" age. Plotting the corrected age usually continues until age 2 years.
- Other populations: there are special growth charts available to plot the growth for children with Down syndrome, Turner syndrome and achondroplasia

Know

- Be alert to the possibility of a problem when the head circumference is at one extreme or the other
- Sequential measurements of growth are sensitive measures of overall health.
- Alteration in the rate of growth "crossing percentiles" should alert you to possible underlying problems.
- Typical weight gain in the newborn period: 20-30 grams/day
- Typical height velocity:
  - In children 5years –puberty, normal growth velocity is ≥ 5 cm/year;
  - < 5 cm/year should be investigated; <4 cm/year is pathologic
- Patterns of growth:
  - Growth hormone deficiency: high weight-to-height ratio
  - Chronic disease (e.g. inflammatory bowel disease):(low weight-to-height ratio)
  - Constitutional growth delay: normal weight-to-height ratio

The maneuvers you use in the adult physical examination are also used when examining children with appropriate adjustment for age and size. It is expected that you will be able to correctly execute the basic physical examination maneuvers commonly used for all patients.

The Newborn Examination

You should be able to conduct a complete examination of all organ systems in a newborn using an age appropriate approach. These examination techniques are the same as for adults with adjustments for age and size. Specific maneuvers that are a part of the neonatal examination that you should be able to demonstrate include:

Fontanel assessment:

Do

- Palpate the anterior fontanel, assessing size and firmness
  - Place the infant in an upright position (and hopefully she/he will remain calm!)
  - Gently place your fingers over the anterior fontanel, located midline on the superior tempero-frontal portion of the skull.
  - Gently palpate for the edges of the fontanel.
- Palpate the posterior fontanel (closes earlier than anterior)
  - Repeat the same procedure outlined above, feeling for the posterior fontanel, located in the midline occipital region.

Know

- The posterior fontanel usually closes by 6 weeks of age. The anterior fontanel closes by 18 months in most infants.
- Changes in intracranial pressure or hydration status are reflected in changes of the palpable tension of the fontanel (increased with increased intracranial pressure, decreased with dehydration).
- Fontanel size varies tremendously; persistent delays in closure or unusually large size of fontanels (particularly the posterior fontanel) may indicate pathologic bone growth delay.
- Craniosynostosis: premature closure of cranial sutures. It may result from a primary defect of ossification (primary craniosynostosis) or, more commonly, from a failure of brain growth (secondary craniosynostosis).
- Conditions associated with a large anterior fontanel (greater than 3 cm) include hydrocephaly, achondroplasia, hypothyroidism, osteogenesis imperfecta, and vitamin D deficient rickets.

Eye Exam:

Do

- Assess whether the red reflex is present
  - Set the ophthalmoscope lens power to “0”. Turn on the lamp and look through the ophthalmoscope into both eyes of the child simultaneously from approximately 18 inches away.
  - The newborn infant spontaneously opens his/her eyes if the head is gently tipped forward/backward. This is easier than trying to force open tightly shut eyelids!
- Test corneal light reflex
  - Shine your ophthalmoscope or penlight in the newborn’s eyes; you are assessing whether the light symmetrically reflects from the corneas bilaterally.

Know

- A normal red reflex emanates from both eyes and is symmetric.

- Leukocoria (white pupillary reflex) suggests cataracts, chorioretinitis, retinopathy of prematurity, persistent hyperplastic vitreous or retinoblastoma. Leukocoria mandates an urgent ophthalmologic evaluation.
- Many newborns appear to be "cross eyed" because of prominent epicanthal folds. A normal (symmetric) corneal light reflex suggests normal alignment (no strabismus)
- Asymmetric corneal light reflex is a sign of strabismus, an imbalance of ocular muscle tone. Uncorrected strabismus can lead to blindness. Proper coordination of eye movements should be achieved by 3-6 months; persistent eye deviation requires evaluation.
- Visual acuity of a newborn is approximately 20/400; this rapidly normalizes and by 2-3 years of age is 20/30-20/20.

Hip Exam:

Do

- Assess the neonate for developmental dysplasia of the hip by performing:
  Barlow maneuver and Ortolani test
  - Place the baby on a firm surface in the supine position
  - Flex the thighs to a right angle to the abdomen and the knees at right angles to the thighs
  - Grasp each thigh with your forefinger along the outside shaft of the femur, with your middle finger on the greater trochanter and thumb medially
  - Adduct the femora fully and push down toward the bed. **(Barlow maneuver)**
  - Gently abduct each leg from the position of full adduction so that the knees come to lie laterally on the table
  - During adduction, push the greater trochanters medially and forward with your fingers **(Ortolani test)**

Know

- The infant may have a congenitally dislocated or subluxable hip if:
  - you feel or hear a click during either adduction or abduction
  - there is spasm or discomfort of the adductor muscles of the femur
- Developmental dysplasia of the hip:
  - 1/100 infants have clinically unstable hips; 1/800-1000 experience true dislocation. There is a positive family history in 20% of patients and associated generalized ligamentous laxity. 9:1 female-to-male ratio.
  - Developmental dysplasia typically presents after birth in most infants. If it is present at birth, you should look for an underlying neuromuscular disorder. This type of developmental dysplasia of the hip is called teratologic DDH.

Newborn reflexes:

Do

- As part of your newborn exam, elicit the following primitive reflexes:
  - Asymmetric tonic neck reflex (Fencer's position)
    - Place the infant on his/her back
    - Turn the newborn's head to one side
    - Observe the gradual extension of the arm on the side to which the head is turned
    - Observe the flexion of the other arm
  - Moro reflex (startle response)
    - Hold the infant supine and support the infant's head with one hand

        - Gently move the infant's head (while supporting it) below the level of the rest of the body
        - Observe the infant extend both arms suddenly and rapidly with open hands
        - Observe the infant bring both hands back to midline in an "embrace" movement
    - Palmar grasp
        - Place your index finders in each of the infant's open hands
        - Observe the infant's fingers close around your fingers in a firm grasp
    - Plantar grasp
        - Place your thumb on the sole of the infant's foot under the toes
        - Observe the toes curl around your thumb

Know

- Reflexes should be symmetric. Asymmetry suggests weakness in a particular muscle group.
- Primitive reflexes disappear as the infant matures; persistence of these reflexes is a signal of underlying neurological dysfunction.
    - Asymmetric tonic neck reflex (Fencer's position)
        - Appears by 35 wks gestation, is fully developed at 1 month & lasts 6-7 months
    - Moro reflex (startle response)
        - Appears by 28-30 wks gestation; is fully developed at term & lasts 5-6 months
    - Palmar grasp
        - Appears by 28 wks, is fully developed by 32 wks gestation & lasts 2-3 months

Skin exam

Do

- Inspect all of the infant's skin (including diaper area)
- Describe (size, shape, color, distribution) any rashes
- Note any areas lacking skin

Know

- Benign lesions that parents may have questions about include:
    - Small angiomata present on the eye lids, nape of the neck, forehead
    - Milia: small white spots on the skin, particularly on the nose and cheeks
    - Erythema toxicum: yellowish/white pustules on an erythematous base that occur singly or in groups.
- Concerning changes include large angiomatous lesions, vesicles, pustules or areas lacking skin
- Midline abnormalities (dimple, hair tuff, moles) on the back may indicate an underlying abnormality in the bones/nervous system.

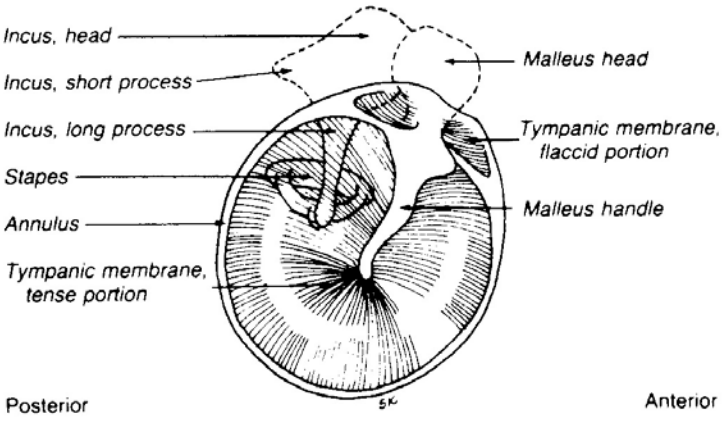
Infant/Toddler Examination

You should be able to conduct a complete examination of all organ systems in all infants/toddlers using an age appropriate approach. These examination techniques are the same as for adults with adjustments for age and size. Specific maneuvers that are a part of the infant/toddler examination include:

Ear examination

Do

- Ask about hearing concerns
  - Inquire about infant's response to noises, voice
  - Observe an older infant's/toddler's speech pattern
- Inspect the ears
  - Assess the shape of the ears
    - Determine if both ears are well formed
  - Assess the position
    - Examine the child from the front, with the child's head held erect and the eyes facing forward.
    - Draw an imaginary line between the inner canthi and extend it around the head.
    - This line should be at or above the top of the pinnae
- Palpate the tragus and posterior auricular area
- Otoscopic exam including insufflation
  - Position the child for an ear examination
    - This part of the exam can be performed either on the examination table or in the caregiver's lap. The head should be stabilized to prevent movement during otoscopy.
    - A parent or assistant can help with the examination by folding the child's wrists and arms over the child's abdomen with one hand and then holding the child's head against the parent's/assistant's chest with the other.
  - Visualize the external canal
    - Gently hold the tragus and insert the otoscope while visualizing the canal. In contrast to adults, gentle posterior traction may help you visualize the canal and eventually the tympanic membrane.
  - Visualize the tympanic membrane
    - Identify the landmarks starting with the long handle of the malleus then moving to the "cone of light" in the pars tensa
    - Carefully visualize the pars flaccida



Courtesy of M. Whipple, MD

- Perform pneumatic otoscopy
  - Hold the otoscope and bulb with one hand and retract the pinna with the other
  - Gently apply a small "puff" of air to the tympanic membrane
  - Normal movement: medially (away from you) with the application of air and laterally (toward you) when the bulb is released

Know

- Hearing:
  - Any delay in language acquisition or loss of language milestones should prompt a referral for formal hearing testing
  - Hearing impairment is estimated to occur in 1-2/1000 live births
  - Some etiology of hearing loss in childhood
    - Sensory-neural: cochlear malformation, damage to hair cells (due to noise, disease, ototoxic agents) or 8th nerve damage
    - Conductive (most common): ear canal atresia, cerumen impaction, otitis media with effusion
- Position/Shape of the ears
  - Malformed external and middle ears may be associated with serious renal or other craniofacial malformations
- Palpation:
  - Tenderness to palpation of the tragus is indicative of otitis externa.
    - You will also typically see white cheesy material in the external auditory canal.
    - Treatment is aural toilet and topical antibiotics
  - Tenderness to palpation and/or redness in the posterior auricular area may suggest mastoiditis.
- Otoscopy:
  - Areas of retraction in the pars flaccida may represent a cholesteatoma and should be further evaluated. A cholesteatoma acts as a benign tumor causing local bone destruction and is a nidus for bacteria to grow and cause chronic infections.
  - The most common reason for an immobile tympanic membrane (TM) with pneumatic otoscopy is a poor seal between the otoscope and ear canal
  - You must assess the movement of the TM to determine if a patient has otitis media. In addition to pneumatic otoscopy; acoustic tympanometry can be used.

- Changes in the appearance of the TM that are highly suggestive of acute infection include bulging or purulent material visualized behind the tympanic membrane. Guidelines for the diagnosis and treatment of otitis media: www.aap.org
- Removal of cerumen is difficult but sometimes necessary to adequately see the TMs. The external auditory canal bleeds easily with minor trauma so ask for help if you need to clear out cerumen. It can be done by gentle irrigation with warm water, H_2O_2 or with direct visualization and use of a wire/plastic loop.

Mouth examination

Do

- The approach
  - In young children save the mouth exam for the very last
  - Ask child to open the mouth and show you their teeth (appropriate for an older toddler/child). If this doesn't work, be prepared to be fast with your tongue blade.
  - An alternative is to be flexible and look in the mouth when the child is crying for some other reason!!!
- Inspect the teeth
  - Count the number of teeth and note position
  - Note any defects or discolorations
- Inspect gums, mucosal surfaces and posterior pharynx
  - Inspect the buccal mucosal and gums looking for ulcers, candida or trauma
  - To see the posterior pharynx, you may have to use the tongue blade and gag the child. Alternative tricks you can use include asking the child to "roar like a lion", "pant like a dog", have their parents model what you would like to child to do or have the child look in your mouth.

Know

- The numbering system for primary teeth is different than the system used in adults.
  - There are 20 primary teeth
    - Time for first tooth eruption is variable; delayed eruption maybe familial or associated with other syndromes/conditions (like hypothyroidism)
    - There may be developmental anomalies associated with tooth development
- Dental caries is the most common chronic illness in the United States. More than half of children within the U.S. have dental caries. *Steptococcus mutans* is associated with the development of dental caries.
  - Early childhood caries may occur on the smooth surfaces of upper/lower incisors because of prolonged exposure to sugar containing substances.
  - Sites for caries in older children (> 3 years) include pits/fissures of biting (occlusal) surfaces
- Using a tongue blade in this population is challenging. Inserting it along the side of the mouth and then gagging the child will allow for an unobstructed view of the posterior pharynx in most children.
- The size of tonsils are described in the following way

Grade	Appearance
0	Absent
1	Visible between the tonsillar pillars
2	Easily visible outside of the tonsillar fossae
3	Enlarged and occupying >75% of posterior pharynx

4	Touching in the midline occupying all of the posterior pharynx

- The diagnosis of streptococcal pharyngitis is a laboratory, not clinical diagnosis. Other infections that can cause tonsillar exudates include EBV infections, CMV infections, S. aureus infections, adenoviral infections.

Heart Examination

The approach to the pediatric heart examination is the same as in an adult. Included here is a brief discussion of murmurs in children.

- Newborn period
  - As the pulmonary vascular resistance decreases, flow through the ductus ateriosus or foramen ovale stops as these structures close. Some murmurs heard shortly after birth will disappear.
  - However, as the pulmonary vascular resistance decreases, this may allow left to right shunting and new murmurs may appear (such as seen with a VSD)
  - Presence of central cyanosis is an important clue for congenital heart disease. Those lesions associated with cyanotic heart disease are the "Ts": tetralogy of Fallot, tricuspid atresia, transposition of the great arteries, total anomalous venous return and truncus arteriosus (there are others but these are easy to remember)
- Beyond the newborn period
  - 50% of children have innocent murmurs
  - Non-pathologic murmurs include:
    - Peripheral pulmonary flow murmur:
      - Soft (1-2/6) systolic ejection murmur heard at L upper sternal border with radiation to the axilla and back
    - Venous hum
      - Soft (1-2/6) continuous murmur heard in 1^{st} or 2^{nd} intercostal space
    - Innocent murmur
      - Soft (<3/6) early systolic murmur heard along the L sternal border between the $2^{nd}/3^{rd}$ or $4^{th}/5^{th}$ ribs. Intensity varies with position & might be heard with the bell. "Vibratory/blowing/musical" in quality.
    - Hemic murmur (flow murmur)
      - Heard in states with increased physiologic need (fever, anemia). Heard at base of the heart, soft (<3/6) and often associated with tachycardia

Musculoskeletal Examination

Do

- Observe the child closely; noting in particular range of motion and limb use
  - An excellent time to get this information is before the examination while the child is playing or interacting with their parents.
- Inspect the joints for redness or swelling
  - Start with the hands or some non-threatening part of the examination; examine the affected joint last.
- Palpate methodically and in a systematic manner the involved area and all other areas that influence the involved area.

    - Note muscles, bony prominences, other important landmarks, and joints of the involved body part.
    - Be observant for pain or warmth
- Assess active and passive range of motion for each major joint.
    - Young children may not cooperate with this part of the examination; you may have to range their joints and gauge how much they resist you to judge function.

Older child/Adolescent Examination

You should be able to conduct a complete examination of all organ systems in all adolescents using an age appropriate approach. The physical examination in an older child/adolescent is very similar to that done in adults. Pay particular attention to patient modesty. Specific maneuvers that are a part of the older child/adolescent examination include:

Tanner staging (sexual maturity rating)

Do

Assess Tanner staging for both male and female patients. You should assess and report pubic hair development separately from breast or genitalia development.

Girls	Hair (Pubic/Axillary)	Breasts
Stage I	No coarse/pigmented hair	Papilla elevated only
Stage II	Scant course pigmented hair on labia	Breast buds palpable, areola enlarge
Stage III	Course, curly hair over mons pubis; Axillary hair develops	Elevation on contour, areola enlarge
Stage IV	Hair of adult quality, not on lateral thigh	Areola forms a secondary mound on the breast
Stage V	Spread of hair to lateral thigh	Adult breast contour

Boys	Hair (Pubic/Axillary)	Testes length	Penis
Stage I	No coarse/pigmented hair	<2.5 cm	No growth
Stage II	Scant course pigmented hair at base of penis	2.5-3.2 cm	Earliest increase length/width
Stage III	Course, curly hair over pubis	3.6cm	Increased growth
Stage IV	Hair of adult quality, not on lateral thigh Axillary hair develops	4.1-4.5	Continued growth
Stage V	Spread of hair to lateral thigh	>4.5 cm	Mature genital size

Know

Pubertal changes typically occur between the ages of 8 and 14 in girls and 9 and 16 in boys. Occurrence of pubertal changes outside these ranges should be evaluated.

- Precocious puberty:
  - Benign precocious adrenarche: may occur in boys before age 9 and girls before age 8; absence of penile enlargement in boys or of clitoral enlargement in girls distinguishes this from pathologic virilization.
  - Precocious thelarche: isolated premature breast development in girls
  - Other causes include: CNS tumors, ovarian cysts, gonadal tumors, congenital adrenal hyperplasia, exogenous sources
- Delayed puberty:
  - Constitutional (physiologic): most common, occurs in boys more often and is associated with delayed growth and bone age; ask about family history
  - Other causes: Malnutrition (including anorexia nervosa), chronic disease, central causes (hypothalamic/pituitary abnormality, tumors, drugs, other endocrine problems like hypothyroidism), gonadal causes (chromosomal—XXY, XO, anatomic abnormalities, immunologic).

Musculoskeletal exam

An excellent demonstration of the 2 minute orthopedic examination in an older child can be found at www.clippcases.org case # 6 (Mike pre-sports physical); also Chapter 17 in Goldbloom's Pediatric Clinical Skills (p 311).

Do

- Be able to perform a basic musculoskeletal examination (see ICM-II benchmarks)
- Additional techniques:
  - Assess the strength of the upper and lower extremities' major muscle groups
    - Be able to test pelvic girdle strength: Ask the patient to sit on the floor and then stand up.
    - Lower extremity strength/joint function: Ask the child to squat and walk like a duck across the room.
  - Back examination
    - Inspect the back for spinal dimples & midline abnormalities such as a tuft of hair, midline nevi or central dimple (this should be done beginning in infancy)
    - Assess whether the spinal dimples are level
      - Inspect the patient back from behind when they stand. If the spinal dimples are at the same level there is not significant leg length discrepancy.
    - Assess symmetry/screening for scoliosis:
      - Shoulders should be at the same level, as should posterior superior iliac crest.
      - Inspect the patient's back when they are facing away from you.
      - Have the child bend forward at the waist keeping knees straight and allowing arms to hang freely; ribs/thorax should be symmetric

Know

- Gowers' sign occurs when a child is unable to rise from a sitting to standing position without assistance. This sign indicates proximal muscle weakness
- Midline abnormalities may indicate an underlying spinal cord or vertebral abnormality
- Scoliosis is common in children and screening is a part of the adolescent examination
- Excessive thoracic kyphosis that persists when the child lies down is pathologic

Ethics and Professionalism Benchmarks for Pediatrics

Many of the ethical principles that apply to caring for adults also apply to caring for children. These benchmarks outline several topics unique to pediatric patients that are highlighted in your clerkship. This is not an all-inclusive list. Useful links to additional cases are also included in the final section of the document.

ETHICS:

Parental rights to guide care

Know

Parental rights:
Society has given the right of making medical care decisions to parent because they are viewed as uniquely capable of determining the child's best interest. This included authorizing treatments AND refusing treatments (even life sustaining treatments).
Limitations to parental rights:
If the parents' actions appear not to be in the child's best interest, the parents' rights can be challenged. You have the ethical responsibility to advocate for the patient if you believe the parents' actions are imminently dangerous, neglectful or abusive.

Do

Fully elicit parents' reasons for therapeutic decisions.
Explore perceived differences in an open and accepting manner (even if you really disagree).
Assess whether parents are capable/competent to make medical decisions
Determine (through conversations with your resident and faculty supervisors) whether there are concerns about the parents advocating for the child's best interests.

Child abuse reporting

Know

Caregivers' legal responsibility:
Physicians who care for children have a legal obligation to report suspected child abuse. It is not your responsibility to determine whether the abuse occurred, what person may have perpetrated the abuse or any other specific details. This is a critical role to understand. There are often complicated social interactions and caring for abused children is a team effort. We work with nurses, social workers, other physicians and child protective services as a team to help determine what happened. If you do NOT report it and you suspect it you are legally liable.

Do

Be vigilant about this issue
Be non judgmental—just because you suspect abuse doesn't mean it happened OR you know who the abuser might be.
Be honest about what you see with the parents and ask for their explanation of your findings.
Discuss your observations with your faculty supervisor
Clearly document what you see and what you are told
You SHOULD NOT disclose your concerns to the family before discussing this you're your supervisors…discussing these issues is the faculty/attendings responsibility.

Care of adolescent patients

Know:

General approach:

Adolescent patients are capable of participating and guiding their medical therapy. The extent of each patient's ability will depend on the developmental maturation of the patient. In general, parents retain the responsibility to direct care for patients less than 18 years of age unless there is disagreement about the course of therapy.

Special considerations:

As a caregiver for pediatric patients you should be able to define the following special categories of patients:

1. Emancipated minor:
   There are specific categories of adolescents who are legally capable of directing their medical care. The categories include: 1) married, 2) pregnant/parent, 3) in the military 4) self-supporting.
2. Mature minor:
   Courts can grant decision-making capacity to minors; this may be limited to specific categories of care (see below) or in some cases of chronic illness when the PHYSICIAN case determined that the patients is capable of informed consent.
3. Specific categories of care:
   Decision-making capacity is given to minors for the treatment/ care of pregnancy, drug or alcohol abuse and sexually transmitted disease. Laws vary by state.
   For WA:
   http://www.bostoncoop.net/lcd/wiki?action=browse&diff=1&id=Washington
   For AK:
   http://www.state.ak.us/courts/shceman.htm
   For ID:
   No emancipation except by marriage
   http://www2.state.id.us/women/IdLaw/Ch4.html
   For MT:
   http://data.opi.state.mt.us/bills/2003/BillHtml/HB0647.htm

As a caregiver for pediatric patients you should be able to define the difference between:

1. Informed consent: requires that the patient be competent to make health care decisions, physician disclosure of relevant information, patient understanding of the information and a voluntary, un-coerced patient decision.
2. Parental permission: parents give permission for therapy provided to their children. The same standards and procedures for giving informed consent to a competent patient apply
3. Child Assent: helps patients acquire a developmentally appropriate understanding of her condition, telling the patient what he can expect from the treatment, assessing the patient's understanding of the situation, including determining whether they feel pressured to accept/reject the treatment. It also includes soliciting the patient's willingness to undergo the procedure (you can see how this is probably a team effort with the parents!) This approach is not limited to adolescent patients but is appropriate for ALL pediatric patients.

Do

Use appropriate language for the patient's developmental level when explaining medical care options.

Respect the patient's privacy.

Discuss sensitive issues when you are alone with older patients (e.g. drug or alcohol use, sexual practices/preferences, suicide risk etc.)

Obtain parental permission about therapeutic interventions

Obtain child assent from patients about therapeutic interventions.

PROFESSIONALISM:

Admitting Mistakes

Know

A medical error or mistake is a preventable or unexpected outcome of a medical treatment. An adverse event is a side effect that is may occur in a certain percentage of cases that are treated.

Medical mistakes are usually not due to negligence. They arise from incomplete knowledge base, an error of judgment, lapse in attention or a "systems" error. You have a professional responsibility as a health care provider to disclose errors to your patients. Although it is difficult and uncomfortable disclosing errors, most patients appreciate honesty (wouldn't you?). Loss of trust usually arises from nondisclosure of errors.

Do

When you identify a medical error:

Determine the effect (actual or potential) on the patient

Investigate/identify possible causes

Explain in a calm, unhurried, truthful and apologetic manner that an error has occurred.

Answer all questions the patient has and be open for additional questions in the future

Provide information about follow up of the incident

Accept responsibility and apologize if necessary

Balancing Learning and Care for the patient

Know

As a student is a common dilemma and each case should be approached on an individual basis. The primary conflict in these cases is the care for THIS patient vs. the need to learn to care for FUTURE patients. Balancing the risk to the patient you are caring for presently compared to what you will learn must be determined. There is an adage "see one, do one, teach one", that may or may not be appropriate based on the risk to the patient and your own unique abilities. You must be honest and provide adequate informed consent. An additional stressor for most students is also balancing care for the patient and being evaluated.

Do

Provide informed consent:

You should clearly indicate who will be doing the procedure and what the level of training is. You must answer additional follow up questions (like…how many of these have you done?).

Know your limitations

Communicate your abilities clearly with your supervisors

First do no harm to your patients

Additional reading materials:

Parental decision-making:
http://eduserv.hscer.washington.edu/bioethics/topics/parent.html
Child abuse reporting:
http://www.ama-assn.org/ama/pub/category/10936.html
(Case 2)
Adolescent decision-making:
http://www.ama-assn.org/ama/pub/category/10936.html
(Power point presentation on decision-making)
Mistakes:
http://eduserv.hscer.washington.edu/bioethics/topics/mstks.html
Learning issues
http://www.ama-assn.org/ama/pub/category/7678..html
Informed consent in pediatric patients:
Informed consent, parental permission and assent. Committee on Bioethics. Pediatrics 1995; 95:314-317.

Resources in Pediatric Bioethics

University of Washington School of Medicine

(1) Pediatric Clerkship UW
http://depts.washington.edu/bioethx/topics/index.html
This website presents core materials about ethics and professionalism for each clerkship at UW. Go to the pediatric clerkship section for specific information.

(2) Treuman Katz Center for Pediatric Bioethics
http://bioethics.seattlechildrens.org/education/education.asp
The Treuman Katz Center for Pediatric Bioethics at Seattle Children's Hospital and the University of Washington offers a number of helpful resources for pediatric bioethics. You may also access past conferences and videos of the presentations. Check the calendar for grand rounds presentations on ethics, guest speakers, and other educational activities.

National Resources in Pediatric Bioethics:

(3) American Academy of Pediatrics
http://www.aap.org/sections/bioethics/default.cfm#
American Academy of Pediatrics has been at the forefront of ethical policy development for the Pediatrics profession. While AAP policy statements are not legally binding, they reflect the considered wisdom and consensus of leadership in the profession. The ethics policy statements and full length articles from the membership are some of the most thoughtful ethical discussions among professional statements in medicine. The site is also the best place to go to see a comprehensive list of both classic and current articles on issues in pediatric ethics. Click on "current articles", "classic articles", and "policy statements" to access these documents.

(4) American Medical Association's Journal of Ethics is a terrific resource sponsored by the AMA. It offers case scenarios, brief discussions and helpful presentations. Enter: "child" as the search word to bring up additional discussions in pediatric ethics.

Immunization Information

(5) Information for providers from the CDC: http://www.cdc.gov/vaccines/

(6) AAP Policy Immunization Refusal: http://pediatrics.aappublications.org/content/115/5/1428.full.html

DEPARTMENT CONTACTS
AND
CAREER ADVISORS

University of Washington School of Medicine
Department of Pediatrics Medical Student Program

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Pediatrics Career Advisors

Our career advisors are happy to provide individualized help with your decision making. These advisors are excellent resources and are happy to meet with you at various points throughout the long application process. With your initiative, your advisor will become acquainted with you and your record, and will be able to provide you with individual feedback to help you with these important decisions.

The current Department of Pediatrics faculty members who serve as advisors for aspiring pediatricians:

Career Advising Coordinators:
Dr. Sherilyn Smith - Email: sherilyn.smith@seattlechildrens.org
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Forms

Mid Clerkship Feedback Form (Pediatrics)

Instructions: It is your responsibility to complete this form and have it reviewed and signed by an attending or senior resident. Upload the completed form into the Pediatric Tracker.

Student Name:_____

Site:_____ Rotation Dates: _____

Feedback: (areas for comment: physical exam skills, interviewing skills, oral and written presentation skills, knowledge about pediatrics, professionalism, appropriate test ordering and medication use, clinical reasoning skills).

Something done well:

Something to work on:

Requirement Review:

Requirement	Rotation Site	Complete
H&Ps (3)	inpatient	
Older Child CEX	inpatient/outpatient	
Newborn CEX	Newborn nursery	
Growth Problem Set	inpatient/outpatient	
Therapeutics Problem Set	inpatient/outpatient	
Clinical Encounters Checklist	inpatient/outpatient	

Number of CLIPP Cases completed: _____

Student Signature_____date_____

Faculty/Senior Signature _____date_____

CLINICAL ENCOUNTERS: PEDIATRIC 3RD YEAR CLERKSHIP

By the end of the clerkship you must have seen **at least one** of each domain-patient type/core condition. Enter the date you saw the patient in the "Date seen" column. If you complete a CLIPP case to meet this requirement, enter the CLIPP case number in the "CLIPP" column. Bring the checklist to your mid-rotation meeting. You must turn in your completed table when you take your final examination.

Thank you!

Student Name: _____ **Block:** _____

Domain-patient type/core condition	Symptoms/signs/issues related to domain/patient condition	Date seen	CLIPP	Expected level of student responsibility* (OB, PP, FP)	Clinical setting+ (O, I, E)
Health Maintenance	Well newborn care (0-1 month)			FP	O
	Well infant care (1-12 months)			FP	O
	Well toddler care (12-60 months)			FP	O
	Well child care (5-12 years)			FP	O
	Well adolescent care (13-19 years)			FP	O
Growth	Parental concerns/abnormalities			FP	O,I,E
Nutrition	Parental concerns/abnormalities			FP	O,I,E
Development	Parental concerns/abnormalities			FP	O,I,E
Behavior	Parental concerns/abnormalities			FP	O,I,E
Upper respiratory tract	Runny nose, eye discharge, sore throat, difficulty swallowing, earache			FP	O,I,E
Lower respiratory tract	Cough, wheeze, shortness of breath			FP	O,I,E
Gastrointestinal tract	Nausea, vomiting, diarrhea, abdominal pain			FP	O,I,E
Dermatologic system	Rash, pallor			FP	O,I,E
Central nervous System	Lethargy, irritability, fussiness, headache			OB/PP/FP	O,I,E
Emergent clinical problem	Respiratory distress, shock, ataxia, seizures, airway obstruction, apnea, proptosis, suicidal ideation, trauma, cyanosis			OB/PP/FP	O,I,E
Chronic medical problem				FP	O,I,E
Unique condition: fever without localizing findings	fever			OB/PP/FP	O,I,E
Unique condition: neonatal jaundice	jaundice			FP	O,I,E

I confirm that I have completed the above

Signature: _____ **Date:** _____

*OB=Observation only
PP=Partial participation (history or physical only)
FP=Full participation (history, physical, write note/presentation)

+ O=Outpatient
I=Inpatient
E=Emergency unit

Sample Domain-related Symptoms/Signs/Issues

Domain-patient type/core condition	Diagnosis or issue addressed	CLIPP CASES THAT COVER THIS TOPIC
Health Maintenance	Various issues related to newborn, infant, toddler, child and adolescent	CLIPP case 2,3,4,5
Growth	FTT, poor weight gain, obesity, short stature, microcephaly, macrocephaly, constitutional delay, small for gestational age, large for gestational age	CLIPP case 16, 26
Nutrition	FTT, breast vs formula feeding, questions about switching to formula, when to add solids, beginning cow's milk, diet	CLIPP case 2, 8,16, 26
Development	Delayed or possibly delayed language, gross motor, fine motor, or social adaptive skills, Denver II screening test	CLIPP case 28, 29
Behavior	Sleep problems, colic, temper tantrums, toilet training, feeding problems, enuresis, ADHD, encopresis, autistic spectrum disorder, eating disorders, head banging, poor school performance	CLIPP case 4
Upper respiratory tract	Pharyngitis, strep throat, viral URI, herpangina, peritonsillar abscess, common cold, allergic rhinitis, otitis media, sinusitis, otitis externa	CLIPP case 14
Lower respiratory tract	Bronchiolitis, bronchitis, pneumonia, aspiration, asthma, bronchiectasis	CLIPP case 12, 13
Gastrointestinal tract	Gastroenteritis, Giardiasis, pyloric stenosis, appendicitis, Henoch-Schonlein Purpura, peptic ulcer disease, gastroesophageal reflux disease	CLIPP case 15, 21, 27
Dermatologic system	Viral rash, scarlatina, eczema, urticaria, contact dermatitis, toxic shock, thrush, atopic dermatitis, seborrheic dermatitis, acne, anemia	CLIPP case 3, 11, 21
Central nervous system	Meningitis, concussion, seizures, ataxia, closed head injury, headache	CLIPP case 19, 20, 25
Emergent clinical problem	Meningitis, shock, testicular torsion, diabetic ketoacidosis, acute life threatening event (ALTE), congestive heart failure, burns, status asthmaticus, status epilepticus, encephalitis, child abuse, etc.	CLIPP cases 16, 23, 24, 25
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	CLIPP case 13, 26, 28, 30
Unique condition: fever without localizing findings	Rule out sepsis; urinary tract infection, systemic viral infection (e.g. EBV), autoimmune diseases	CLIPP case 10
Unique condition: neonatal jaundice	Rule out sepsis; ABO incompatibility; breast-feeding jaundice	CLIPP case 8

Observed Communication Skills *Established Well Child Care*	Student:	Observer:	Date:

Data Collection and Clinical Skills

☐Interval History (problems, illnesses, hospitalizations, etc.)
☐Dietary History
Feeding
Babies: frequency/time on breast; quantity of formula
Supplements
Solid foods (# of meals, snacks, balanced meals)
Appetite
Elimination
Babies: quality of stool, # of wet diapers
Toddlers: toilet training, constipation
Children: enuresis, constipation
☐Development
Baby: milestones & current developmental achievements
Toddler: developmental achievements
Child: grade in school, quality of performance

☐Allergies (characteristics)
☐Medications (over the counter, prescription, CAM)
☐Immunization status (up to date vs. missing; problems)
☐Family history (update)
☐Personal History (update – relations with other children, school status and progress)
☐Social History (update – family structure, family support systems, child care arrangements and satisfaction, insurance)
☐Habits (update – recreation, behavioral concerns, safety, family health habits, sleep pattern/details)
☐Review of Systems

Physical Examination

☐Chooses best setting for exam (parent's lap, examine table)
☐Undresses child/exposes body parts as appropriate
☐Observes the child before proceeding with hands-on exam
☐Age appropriate sequence
☐Performs complete exam including age-appropriate neurological

☐Technically correct
☐Uses appropriate restraining techniques to complete exam
☐Demonstrates distraction techniques
☐Respects patient's/parent's fears and anxieties (e.g., requests chaperon when appropriate)
☐Developmental assessment where indicated

Interview Process

☐Opening
Identified self; acknowledges patient
Tells patient/parent purpose/focus of interview
☐Structure of questioning
Proceeds from general to specific
Rate/pace, interruptions, clarity, concreteness
Adjusts vocabulary; avoids verbal idiosyncrasies or jargon
Asks unbiased questions
Maintains control of the interview
Appropriate use of time

☐Integration
Summarizes patient's/parent's problems and concerns
Avoids repeating what was just said
Makes effective use of transitional statements
☐Closing
Summary: explains findings, observations, recommendations
Assures that instructions are understood (not just "yes/no")
Asks for last minute disclosures/questions/concerns

Establishes Rapport

☐Listening Behavior
Makes eye contact
Optimizes seating arrangement
Maintains presence; stays attentive
Makes good use of chart (e.g., shows growth chart, checks on medication)
Shows awareness of verbal and nonverbal cues
Perceived to be actively listening (head nods, verbal reinforcers ("uh-huh"; "tell me more"))
Avoids frequent & lengthy pauses without prior explanation
Avoids excessive writing/typing during the interview

☐Demeanor
Demonstrates poise and confidence, appears natural
Sensitivity
Positive and non-judgmental attitude, tone of voice
Aware of patient's/parent's agenda
Recognizes patient's/parent's feelings
Recognizes one's own feelings
☐Supportive behavior
Use of verbal reinforcers
Appropriate use of reassurance
Reflection of patient's/parents feelings when appropriate, paraphrases
Shares feelings when appropriate
Uses silence and pauses
Uses confrontation

Comments and Feedback

Observed Communication Skills *Acute care/sick visit*	Student:	Observer:	Date:

Data Collection and Clinical Skills

☐History of present illness
- How long has the child been ill
- Chronological review of signs/symptoms
- Associated symptoms
- Activity level of the child
- Appetite for solids or liquids
- Pertinent review of systems
- Pertinent family history (e.g., asthma if child is wheezing)
- Exposure to others who are ill
- Animal contacts which could cause illness
- Has patient had this before?
- Immediate intervention if needed

☐Relevant past medical history
☐Medications (over the counter, prescription, CAM)
☐Immunization status as pertinent

Physical Examination

☐Chooses best setting for exam (parent's lap, examine table)
☐Undresses child/exposes body parts as appropriate
☐Observes the child before proceeding with hands-on exam
☐Age appropriate sequence
☐Focuses on all areas included in/related to chief complaint
☐Examines related organ systems as suggested by history

☐Technically correct
☐Uses appropriate restraining techniques to complete exam
☐Demonstrates distraction techniques
☐Respects patient's/parent's fears and anxieties (e.g., requests chaperon when appropriate)
☐Developmental assessment where indicated

Interview Process

☐Opening
- Identified self; acknowledges patient
- Tells patient/parent purpose/focus of interview

☐Structure of questioning
- Proceeds from general to specific
- Rate/pace, interruptions, clarity, concreteness
- Adjusts vocabulary; avoids verbal idiosyncrasies or jargon
- Asks unbiased questions
- Maintains control of the interview
- Appropriate use of time

☐Integration
- Summarizes patient's/parent's problems and concerns
- Avoids repeating what was just said
- Makes effective use of transitional statements

☐Closing
- Summary: explains findings, observations, recommendations
- Assures that instructions are understood (not just "yes/no")
- Asks for last minute disclosures/questions/concerns

Establishes Rapport

☐Listening Behavior
- Makes eye contact
- Optimizes seating arrangement
- Maintains presence; stays attentive
- Makes good use of chart (e.g., shows growth chart, checks on medication)
- Shows awareness of verbal and nonverbal cues
- Perceived to be actively listening (head nods, verbal reinforcers (“uh-huh”; “tell me more”))
- Avoids frequent & lengthy pauses without prior explanation
- Avoids excessive writing/typing during the interview

☐Demeanor
- Demonstrates poise and confidence, appears natural
- Sensitivity
- Positive and non-judgmental attitude, tone of voice
- Aware of patient's/parent's agenda
- Recognizes patient's/parent's feelings
- Recognizes one's own feelings

☐Supportive behavior
- Use of verbal reinforcers
- Appropriate use of reassurance
- Reflection of patient's/parents feelings when appropriate, paraphrases
- Shares feelings when appropriate
- Uses silence and pauses
- Uses confrontation

Comments and Feedback

UWSOM Department of Pediatrics Clerkship Mini-CEX Form

Observed Physical Exam - Neonatal

Purpose: To demonstrate competency performing an age appropriate pediatric examination
Directions: Students are to complete 2 examinations (a newborn and a child, 2-12 yrs. old). The examination forms must be completed by a faculty member or resident. Upload your completed form into your Pediatric Tracker.

Date_____Student_____Observer_____

Neonatal Examination

General
- ❑ Introduces self/preceptor
- ❑ Uses appropriate exam sequence

Assesses maturity
- ❑ Term
- ❑ Pre-term

Assesses intrauterine growth
- ❑ SGA
- ❑ AGA
- ❑ LGA

Skin
- ❑ Notes findings

Head
- ❑ Palpates fontanels/sutures
- ❑ Notes caput succedaneum
- ❑ Notes subgaleal hemorrhage

Eyes
- ❑ Checks red reflex

Ears/Nose/Throat
- ❑ Position
- ❑ Pre-auricular pits
- ❑ Checks for cleftpalate

Thorax
- ❑ Symmetry
- ❑ Breast tissue

Lungs
- ❑ Observes rate, depth of breathing
- ❑ Auscultates (with correct findings)

Heart
- ❑ Palpates for position
- ❑ Auscultation
- ❑ Identification of murmur present

Abdomen
- ❑ Palpates: liver spleen kidney
- ❑ Inspects Umbilicus

Genitalia
- ❑ Examines and identifies abnormalities

  Male:
  - ❑ Hypospadias
  - ❑ Hernias/hydroceles

Anus
- ❑ Visual check for patency

Spine
- ❑ Dimples/sinus tracts
- ❑ Scoliosis/masses

Extremities
- ❑ Pulses
- ❑ Hip dislocation:
  - ❑ Gluteal folds
  - ❑ Barlow/Ortolani

Reflexes
- ❑ Checks: Moro root palmar grasp
- ❑ Babinski sign
- ❑ DTRs
- ❑ Cranial nerves
- ❑ Active/passive tone
- ❑ Spontaneous motor activity
- ❑ Cry

Overall Performance:

- ❑ Satisfactory (performed >70% of maneuvers correctly without instruction & used exam sequence appropriate for the patient)
- ❑ Needs improvement (performed >70% of maneuvers correctly but with significant instruction and/or used an exam sequence not appropriate for the patient)
- ❑ Unsatisfactory (performed < 70% of maneuvers correctly)

Additional Comments:

UWSOM Department of Pediatrics Clerkship Mini-CEX Form

Observed Physical Exam - Pediatric

Purpose: To demonstrate competency performing an age appropriate pediatric examination
Directions: Students are to complete 2 examinations (a newborn and a child, 2-12 yrs. old). The examination forms must be completed by a faculty member or resident. Upload your completed form into your Pediatric Tracker.

Date_____Student_____Observer_____

Pediatric Examination

General
- ❑ Introduces self/preceptor
- ❑ Uses appropriate exam sequence
- ❑ Puts child at ease

Head
- ❑ Palpates
- ❑ Examines hair

Eyes
- ❑ Checks red reflex
- ❑ Conjunctiva/sclera
- ❑ Extraocular movements
- ❑ Fundoscopic exam

ENT
- ❑ External ear exam
- ❑ Visualizes TM
- ❑ Checks response to voice
- ❑ Checks nose/mucosa
- ❑ Notes state of dentition/gingiva
- ❑ Examines tonsils/pharynx

Neck
- ❑ Palpates lymphatic chain
- ❑ Checks for masses

Skin
- ❑ Notes presence/absence of rashes
- ❑ Describes rashes/skin lesions

Lymphadenopathy
- ❑ Palpates: neck axilla groin

Thorax
- ❑ Symmetry
- ❑ Breast tissue
  - ❑ Palpates for masses
  - ❑ Tanner stage

Lungs
- ❑ Observes rate, depth of breathing
- ❑ Palpates/percusses chest
- ❑ Auscultates (with correct findings)

Cardiovascular
- ❑ Palpates PMI
- ❑ Auscultates
- ❑ Correctly identifies murmurs
- ❑ Checks pulses
  Neck wrist groin feet

Gastrointestinal
- ❑ Auscultates for bowel sounds
- ❑ Percusses
- ❑ Palpates for:
  - ❑ Masses
  - ❑ Liver edge
  - ❑ Spleen
  - ❑ Tenderness

Musculoskeletal
- ❑ Checks for clubbing, cyanosis
- ❑ Checks strength in all extremities
- ❑ Checks ROM:
  - ❑ Upper extremities
  - ❑ Lower extremities
- ❑ Scoliosis

GU
- ❑ Tanner stage
  Male: phallus testes pubic hair
  Female: vulva/pubic hair

Neurological
- ❑ Cranial Nerves
- ❑ DTR
- ❑ Sensation
- ❑ Cerebellar function
- ❑ Babinski
- ❑ Gait (if patient able)
- ❑ Affect/mental status

Overall Performance:

- ❑ Satisfactory (performed >70% of maneuvers correctly without instruction & used exam sequence appropriate for the patient)
- ❑ Needs improvement (performed >70% of maneuvers correctly but with significant instruction and/or used an exam sequence not appropriate for the patient)
- ❑ Unsatisfactory (performed < 70% of maneuvers correctly)

Additional Comments:

Daily Pediatric Clerkship Feedback Form

Student Name: _____ Date: _____

Instructions: Check one or two areas to target your feedback. Give the form to someone to observe your skills (faculty, resident, peer, other healthcare profession). Review the form at the end of the day/session. This form is meant to help you obtain timely formative feedback on your clinical skills. Observers MAY give you additional feedback.

Clinical Skills and Knowledge	**Patient Care Skills**	**Interpersonal Relationships**
Knowledge in subject area	Integration skills	Communication skills
Data gathering skills	Management skills	Professional relationships
Written clinical reporting skills	Patient centered care	Relationships with patients & families
Oral clinical reporting skills		
Procedure skills	Educational attitudes	Dependability and responsibility

What I observed:

Keep doing:

Start doing:

Stop doing: