MCGAW MEDICAL CENTER of NORTHWESTERN UNIVERSITY

Ann & Robert H. Lurie Children's Hospital of Chicago

SUMMARY OF RESIDENCY CURRICULUM

The curriculum for the Pediatric Residency Program consists of three components:

1. **The Overall Residency Program Curriculum**
2. **Each Individual Rotation Curriculum**
3. **The Concentrated Areas of Focus.**

The Overall Residency Program Curriculum is based on the 21 pediatric milestones established by the Pediatric RRC and ACGME. Aspects of this curriculum are reflected in the daily educational conferences (see "Didactic Sessions," pp. 84-87). The individual rotation curricula are based on the published General Pediatric Residency Program Curriculum from the American Pediatric Association. Each curriculum for a specific rotation is reviewed and revised on an annual basis by the faculty who are responsible for and teach in that rotation. The curriculum is structured to indicate graduated attainment of competence based on level of training. For each curriculum grid, the numerals 1, 2, and 3 represent PGY-1, PGY-2, and PGY-3 levels. Suggested attainment of individual competence is indicated by level of training and expectation for the percentage of time that a given resident is able to successfully demonstrate competence in each area.

The four areas of focus include:

1. **Advocacy/Population Health**
2. **Global Health**
3. **Medical Education**
4. **Primary Care/Community Health**

Pursuit of these areas of focus is optional. Any resident who would like to devote substantial curricular time toward pursuing one of these given areas of focus would complete the curricular elements, and their efforts would be given special recognition in the form of a certificate at the time of graduation from the residency program. Alternatively, residents can choose to select aspects from any of the areas of focus to incorporate into their own individualized curriculum.

McGAW MEDICAL CENTER of NORTHWESTERN UNIVERSITY

Ann & Robert H. Lurie Children's Hospital of Chicago

Overall Competencies for the Pediatric Residency Training Program
(21 Pediatric Milestones)

GENERAL CURRICULUM

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Provide excellent patient care.

COMPETENCIES: (PC)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Gather essential and accurate information about the patient.			1	2,3
2. Organize and prioritize responsibilities to provide patient care that is safe, effective, and efficient.		1	2	3
3. Provide transfer of care that ensures seamless transitions.		1	2	3
4. Perform complete and accurate physical examinations.			1	2,3
5. Make informed diagnostic and therapeutic decisions that result in optimal clinical judgment.		1	2	3
6. Develop and carry out management plans.		1	2	3

GOAL 2: Build a strong fund of pediatric medical knowledge.

COMPETENCIES: (MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems.		1	2	3
2. Demonstrate sufficient knowledge of the basic and clinically supportive sciences appropriate to pediatrics.		1	2	3

GOAL 3: Understand how to continually learn and improve within the context of pediatric practice.

COMPETENCIES: (PBLI)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Identify strengths, deficiencies, and limits in one's knowledge and expertise.			1	2,3
2. Identify and perform appropriate learning activities to guide personal and professional development.			1	2,3
3. Systematically analyze practice using quality improvement methods and implement changes with the goal of practice improvement.		1	2	3
4. Incorporate formative evaluation feedback into daily practice.			1	2,3

GOAL 4: Develop interpersonal and communication skills to function in a professional setting.

COMPETENCIES: (IC)	<25%	25-50%	50-75%	75-100%
1. Communicate effectively with patients, families, and the public as appropriate, across a board range of socioeconomic and cultural backgrounds.			1	2,3
2. Demonstrate the insight und understanding into emotion and human response to emotion that allow one to appropriately develop and manage human interactions.			1	2,3
3. Work effectively as a member or leader of a health care team.			1	2,3

GOAL 5: Attain a high degree of professionalism related to medical practice.

COMPETENCIES: (P)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Demonstrate humanism, compassion, integrity, and respect for others based on the characteristics of an empathetic practitioner.			1	2,3
2. Demonstrate a sense of duty and accountability to patients, society, and the profession			1	2,3
3. High standards of ethical behavior which includes maintaining appropriate professional boundaries.			1	2,3
4. Self-awareness of knowledge, skills, and emotional limitations to engage that leads to appropriate help-seeking behaviors.		1	2	3
5. Demonstrate trustworthiness that makes colleagues feel secure when one is responsible for the care of patients.		1	2	3
6. Recognize that ambiguity is part of clinical medicine and respond by utilizing appropriate resources in dealing with uncertainty.		1	2	3

GOAL 6: Learn to practice medicine within the context of a larger environment.

COMPETENCIES: (SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Coordinate patient care within the health system relevant to their clinical specialty.		1	2	3
2. Advocate for quality patient care and optimal patient care systems.			1	2,3
3. Work in interprofessional teams to enhance patient safety and improve patient care quality.		1	2	3

MCGAW MEDICAL CENTER of NORTHWESTERN UNIVERSITY

Ann & Robert H. Lurie Children's Hospital of Chicago

Overall Competencies for the Pediatric Residency Training Program

ADOLESCENT MEDICINE

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Understand adolescent physical and psychological growth and development.

COMPETENCIES: (PC, MK, IC)	<25%	25-50%	50-75%	75-100%
1. Know the physiological effects of puberty.			1	2,3
2. Know how to assess pubertal maturation utilizing the Tanner stage.			1	2,3
3. Awareness of the stages of psychosocial and cognitive maturation in adolescents.		1	2	3
4. Know how to assess linear growth and weight gain in adolescents.			1	2,3
5. How to recognize and assess pubertal delay.		1	2	3
6. Use trigger questions to explore the adolescent's perspective on self, family, peers, and community.				

GOAL 2: Learn how to take a history from adolescents and their parents, techniques of relating to adolescents and performing an appropriate physical examination.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	<25%	25-50%	50-75%	75-100%
1. Learn the components of an adolescent medical history including psychosocial screening.		1	2	3
2. Understand the concepts of confidentiality, consent and parental notification and be able to practice within those parameters.		1	2	3
3. Learn how to perform a physical exam with special attention to adolescent needs, Tanner staging, body mass index, assessment of growth screening for scoliosis, breast and testicular exam, sports participation screening exam, and skin.		1	2	3
4. Know the indications and be able to perform a pelvic exam on an adolescent, perform a pap smear and screen for sexually transmittable diseases.		1	2	3
5. Review screening tests with adolescents – what they are, when & why they are done, and who receives the results.				

GOAL 3: Increase awareness of the major public health problems and behaviors affecting adolescents.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	<25%	25-50%	50-75%	75-100%
1. Learn the epidemiology of adolescent trauma, homicide, suicide, sexually transmitted disease, pregnancy and substance abuse.		1	2	3
2. Understand the risk factors associated with these problems.		1	2	3
3. Develop an approach to screen for these risk factors in practice and an approach to preventive counseling.		1	2	3
4. Learn how to screen for teens at risk for pregnancy and STD's; develop an approach to prevention of these problems.	1		2	3
5. Learn an approach to diagnosis and referral for teens who become pregnant.	1		2	3
6. Learn how to evaluate the adolescent victim of an perpetrator of violence and develop an approach to juvenile delinquency and criminality.		1	2	3
7. Recognize the adolescent who is at risk for HIV infection and develop an approach to care.		1	2	3
8. Describe referral resources within the community for adolescents with substance abuse problems.				

GOAL 4: Understand the management of adolescents with psychological problems.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Recognize adolescent depression, suicidal behavior, somotoform disorders, risk-taking, and school and learning problems.		1	2	3
2. Obtain a history from an adolescent screening for depression and suicidal thoughts and plans, using trigger questions.				
3. Learn to approach diagnosis and referral for teens with substance abuse, eating disorders and serious mental health problems.			1,2	3
4. Develop an approach to referral for adolescents with psychological problems.			1,2	3
5. Understand the role of the primary care physician in teamwork for treatment of psychological problems.			1	2,3
6. Learn about the most common ingestions associated with adolescent suicidal behavior.			1	2,3
7. Understand the major issues in psychopharmacological management during adolescents.		1	2	3

GOAL 5: Recognize and manage risk factors for adult disease.

COMPETENCIES: (PC, MK, PBLI, IC)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Understand blood pressure screening and management in adolescence.			1	2,3
2. Know when and how to screen hyperlipidemia.			1	2,3
3. Understand basic nutritional counseling with adolescents.			1	2,3
4. Develop an approach to the obese adolescents.			1	2,3
5. Know how to counsel adolescents about smoking cessation.			1	2,3
6. Develop an approach to the adolescent with a strong family history of coronary artery disease.			1	2,3

GOAL 6: Improve ability to manage childhood diseases and disabilities that continue to adulthood.

COMPETENCIES: (PC, MK, PBLI, IC, SBP)	<25%	25-50%	50-75%	75-100%
1. Understand the importance in working with families in facilitating a transition to adulthood in teens with chronic disease.	1		2	3
2. Recognize the developmental effects of chronic disease on adolescents.		1	2	3
3. Learn how to counsel adolescents with chronic disease on issues pertaining to maturation, sexuality, and autonomy.		1	2	3
4. Learn about the care of adolescents with specific common chronic diseases: asthma, inflammatory bowel disease, cystic fibrosis, diabetes, sickle cell anemia and cancer.		1	2	3

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Overall Competencies for the Pediatric Residency Training Program

ALLERGY & IMMUNOLOGY

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Asthma: Understand how to diagnose asthma and how to manage mild and moderate cases.

COMPETENCIES: (MK, PBLI, IC, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Discuss the general concepts of asthma: epidemiology, prevalence, heredity, clinical presentation, inciting stimuli and complications.			1	2,3
2. Describe asthma management:				
a. Status asthmaticus				
use of medications			1	2,3
evaluation of acid-base status: pulse ox, TCM, ABG			1	2,3
complications			1	2,3
b. Outpatient management				
use of beta 2 agonists (to beta or not to beta)			1	2,3
use of inhaled anti-inflammatory agents including inhaled steroids			1	2,3
use of spacer devices			1	2,3
use of peak flow meters and pulmonary function studies			1	2,3
role of environment: tobacco, smoke avoidance, pets, dust mite exposure, pollens			1	2,3
patient education and adherence factors			1	2,3
3. Discuss the differential diagnosis, evaluation, and pharmacologic treatment of wheezing.		1	2	3

GOAL 2: Allergic Rhinitis and Conjunctivitis: Understand the diagnosis and management of allergic rhinitis and conjunctivitis.

COMPETENCIES: (MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. . Describe the different aspects of rhinitis.			1	2,3
2. Describe the clinical presentation, radiographic evaluation (limited sinus CT or plain films) and management of sinusitis.			1	2,3
3. Describe management of the use of anti-histamines		1	2	3
4. Describe management of the use of nasal corticosteroids		1	2	3

GOAL 3: Drug Allergy: Understand the principles, diagnosis and management of drug allergy.

COMPETENCIES: (MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Discuss the basic principles, diagnosis and management of:				
a. Drug reactions		1	2	3
b. Acute management		1	2	3
c. Cross reactivity with other drugs, i.e. penicillin and cephalosporins			1	2,3
d. Steven's Johnson syndrome		1	2	3
e. Management of patients with multiple drug allergies		1	2	3

GOAL 4: Food Allergy: Understand the role of the general pediatrician in the assessment and management of food allergy.

COMPETENCIES: (MK)	<25%	25-50%	50-75%	75-100%
Discuss the typical presentations for food allergies, including:				
1. Presentation and diagnosis		1	2	3
2. Use of skin testing and RAST testing in evaluation			1	2,3
3. Egg allergy, MMR, influenza vaccination.			1	2,3
4. Association with atopic dermatitis.				1,2,3
5. Avoidance measures and time frame for reevaluation in infants and toddlers.			1	2,3
6. Role of oral challenge.			1, 2	3
7. Indications for epinephrine		1	2	3

GOAL 5: Anaphylaxis: Understand the principles, diagnosis and management of anaphylaxis.

COMPETENCIES: (MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Discuss the clinical manifestations including:				
1. Types of reactions and risk factors.		1	2	3
2. Triggers		1	2	3
3. Acute management.			1	2,3
4. Use of Epi Pen.		1	2	3

GOAL 6: Common Conditions Not Referred (Allergy/Immunology): Understand how to diagnose and manage allergy/immunology conditions which generally do not require referral.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Recognize, diagnose, describe the pathophysiology of, and manage appropriately these conditions.				
1. Allergic rhinitis.			1	2,3
2. Allergic conjunctivitis.			1	2,3
3. Atopic dermatitis.		1	2	3
4. Asthma, mild to moderate.		1	2	3
5. Urticaria/Angioedema.			1	2,3
6. Food allergies.			1	2,3
7. Common drug allergies.			1	2,3
8. Insect sting allergy.				1,2,3

GOAL 7: Conditions Generally Referred (Allergy/Immunology): Understand how to recognize, manage, and refer conditions related to allergy and immunology which generally require consultation or referral.

COMPETENCIES: (PC, MK, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Explain the pathophysiology of, identify and provide initial management of, and refer appropriately the following:				
1. Conditions listed in Goal 6 (generally not requiring referral) if severe or if reasonable management is unsuccessful.		1	2	3
2. Patients requiring skin testing for diagnosis and/or immunotherapy.		1	2	3
3. Hereditary or severe angioedema.			1,2	3
4. Anaphylaxis.		1	2	3
5. Latex allergy.			1	2,3
6. Patients with documented immunodeficiency (congenital, acquired, or metabolic) or with compatible symptoms.			1,2	3
7. Serum sickness.			1,2	3

Overall Competencies for the Pediatric Residency Training Program

ANESTHESIA

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: History & Physical Examination: Understand the important elements of a history in the pre-operative pediatric patient and the unique components of the physical examination.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Compare infant, child, and adult airway anatomy.			1	2,3
2. Recognize acquired and congenital conditions associated with difficult airways.		1	2	3
3. Recognize infant and child in respiratory distress and failure.			1	2,3

GOAL 2: Respiratory & Airway Management : Understand the key diagnostic and management principles related to respiratory and airway management.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Describe indications and limitations of various oxygen delivery systems (nasal cannula, simple face mask, partial rebreathing mask, nonrebreathing mask, oxygen hood, face tent).		1	2	3
2. Describe indications, limitations, and insertion technique for oral and nasal airways.		1	2	3
3. Describe indications and limitations of non-invasive monitoring of the patient in respiratory distress (pulse oximetry).		1	2	3
4. List appropriate sequence of steps in the management of the airway of the infant, child, and adult with cardiopulmonary arrest.		1	2	3
5. Discuss selection of the appropriate size of endotracheal tube and laryngoscope blade.			1	2,3
6. Demonstrate expertise in bag and mask ventilation.		1	2	3
7. Describe indications for Rapid Sequence Intubation (RSI); Understand indications and pharmacokinetics of medications used for RSI; Describe preferred sequence of RSI.		1	2	3
8. Describe indications for Conscious Sedation; Demonstrate knowledge of standard agents used, appropriate monitoring, and discharge criteria.		1	2	3
9. Discuss management of the postoperative patient in the recovery room/ICU.		1	2	3
10. List appropriate sequence of steps in the management of the airway of the newborn in distress..			1	2,3

GOAL 3: Complications: Recognize the common clinical settings in pediatric anesthesia leading to complications for patient management.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Management of airway emergencies in the patient with a tracheotomy.		1	2	3
2. Discuss management of the postoperative patient in the recovery room/ICU.		1	2	3

Overall Competencies for the Pediatric Residency Training Program

BEHAVIORAL & DEVELOPMENTAL PEDIATRICS

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Understand and be able to apply principles of child development to pediatric practice.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Identify significant markers of normal development within each developmental domains (cognitive, language, social, emotional and motor) at all ages across childhood.		1	2	3
2. Consistently include adequate, meaningful markers of development in well child care documentation as well as in-patient, out-patient subspecialty, and other sick visit charts as appropriate.			1,2	3
3. Advise parents, when called for, about aspects of their child(ren)'s development that fall within and beyond the parameters of "normal" for a given age/stage of development.			1,2	3

GOAL 2: Recognize/identify atypical patterns of development throughout childhood and learn to utilize management strategies for working with special needs children that are appropriate for general pediatric practice.

COMPETENCIES: (PC, MK, PBLI, IC, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Advise parents, when called for, about aspects of their child(ren)'s development that fall within and beyond the parameters of "normal" for a given age/stage of development.			1,2	3
2. Be able to describe the primary characteristics within prevalent categories of developmental disabilities including cerebral palsy, Down syndrome, Fragile X syndrome, outcomes of prematurity, autism/PDD, speech/language dysfunction, outcomes of intrauterine substance exposure, and lead poisoning.	1	2	3	
3. Coordinate care management for children demonstrating a range of developmental disabilities.	1	2	3	

GOAL 3: Understand the range of expected/normal behaviors and be able to counsel parents and children around "typical" behavioral challenges throughout childhood.

COMPETENCIES: (MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Advise parents about aspects of their child(ren)'s behavior that fall within the parameters of "normal" for a given age/stage of development.			1,2	3
2. Integrate individual and family circumstances into primary care anticipatory guidance, as appropriate.		1		2,3
3. Counsel patient families on managing a range of common behavior problems using a family-focused, culturally sensitive and individually tailored approach.		1	2	3

GOAL 4: Know characteristics of and interactions between the most common disorders that can affect a child's school functioning (e.g. learning disabilities, ADHD, conduct disorders, oppositional defiant disorders, mood disorders) and be able to help schools and families, as appropriate, identify and manage patients' behavioral and learning challenges.

COMPETENCIES: (PC, MK, PBLI, IC, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Describe the major characteristics that define and differentiate among learning disabilities, ADHD, conduct disorders, oppositional defiant disorders, and mood disorders and their co-morbid presentations.	1		2	3
2. Identify, and consistently screen for, characteristics that can negatively influence a child's learning, behavior, and overall school performance in the context of well child visits.	1		2	3
3. Use standardized screening and/or assessment tools to help in the diagnosis of learning or behavioral disorders among school aged children.		1,2		3
4. Provide medication management and coordinate any needed behavioral counseling for patients with ADHD in the resident's primary care panel.	1		2,3	

GOAL 5: Recognize when children's developmental, learning, and behavioral issues warrant referral for further assessment and/or management by other medical, mental health, or educational specialists and be able to work effectively with professionals across disciplines to optimize the development of patients and support their families.

COMPETENCIES: (PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Help families negotiate the process of requesting a comprehensive assessment of their child's educational, developmental, and neuropsychological development from the school system or other qualified personnel.	1		2,3	
2. Assist patients and their families in understanding/ interpreting findings from comprehensive assessments of learning and behavior.	1		2,3	
3. Help families advocate for and obtain any developmental, educational, therapeutic, and/or mental health services indicated as a result of assessments.	1	2	3	
4. Identify characteristics of quality programs and services for children and families (e.g. day care, preschools, special education, therapeutic) in a community. Help families evaluate and select programs/services that support their particular goals for their children.	1			2,3

GOAL 6: Recognize the range of intrinsic (e.g. biologic, genetic, temperamental) and extrinsic (e.g., parenting, family structure and change, poverty, exposure to toxins, day care/schools, other risk conditions) factors that can influence a child's development/behavior, integrating assessment of individual and family circumstances into all clinical encounters in order to help individually tailor guidance and treatment approaches.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. List and be able to discuss how family characteristics and other environmental variables can influence children's behavior and development.			1,2	3
2. Integrate individual and family circumstances into primary care anticipatory guidance, as appropriate.		1		2,3
3. Counsel patient families on managing a range of common behavior problems using a family-focused, culturally sensitive and individually tailored approach.		1	2	3
4. Identify characteristics of quality programs and services for children and families (e.g., day care, preschools, special education, therapeutic) in a community. Help families evaluate and select programs/services that support their particular goals for their children.	1			2,3

GOAL 7: Learn to use a variety of methods (including child and adult interviews, observation, examination, and formal screening tools) to gather data on children's development, behavior, school/educational, psychosocial, and family functioning in the context of developmental surveillance within primary care pediatrics.

COMPETENCIES: (PC, MK, IC, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Use, score, and present the findings to families from established primary care developmental, behavioral, and psychosocial screening tools during well child patient visits.		1	2	3
2. Integrate selected, meaningful observations of (elicited and spontaneous) child behavior/development into well child chart records.	1		2	3
3. Use established structured or semi-structured interviews with children and parents as second stage screening for developmental or behavioral problems; discuss findings and recommendations with families and other significant individuals, as called for.	1	2	3	

Overall Competencies for the Pediatric Residency Training Program

CARDIOLOGY

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Understand and demonstrate technical proficiency in performance of an appropriate cardiovascular physical examination, blood pressure measurements, and ECG's.

COMPETENCIES: (PC, MK, PBLI)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Identifies strategies for approaching children of different ages for a physical examination.			1	2, 3
2. Recognizes clinical situations which require a focused examination and those which require a more complete examination; uses good judgment in deciding the extent of the examination.			1	2, 3
3. Demonstrates the ability to interpret 12 lead ECG's.	1	2	3	
4. Demonstrates the ability to perform and interpret blood pressure measurements by sphygmomanometer and by Doppler.				1, 2, 3

GOAL 2: Understand how to evaluate and manage common presenting symptom complete related to the cardiovascular system.

COMPETENCIES: (PC, MK, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Describes normal and abnormal physiology causing the symptom.		1	2	3
2. Develops a differential diagnosis, focusing on those related to the cardiovascular system.		1	2	3
3. Describes the step-wise approach to the diagnostic work-up, including serial evaluation as a diagnostic tool.		1	2	3
4. Identifies the indications for referral to a pediatric cardiologist.			1	2, 3
5. Recognizes when urgent evaluation/treatment is warranted and provide appropriate initial management.				
a. Chest Pain			1	2, 3
b. Palpitations, tachycardia, irregular heartbeat			1	2, 3
c. Tachypnea, shortness of breath, difficulty breathing, wheezing, stridor			1	2, 3
d. Cyanosis				1
e. Syncope			1	2, 3
f. Failure to thrive				1
g. Hypertension			1	2, 3

GOAL 3: Understand how to distinguish normal from abnormal cardiovascular signs and symptoms.

COMPETENCIES: (MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Describes the mechanisms of production of heart sounds and murmurs. Learned to differentiate innocent versus pathologic murmurs and normal vursus abnormal heart sounds.			1	2, 3
2. Explains the age-related changes in heart rate and blood pressure, and identifies normal ranges from birth through adolescence.			1	2, 3
3. Differentiates between physiologic and pathologic variations in cardiac rhythm.			1	2, 3
4. Describes normal fetal circulation, changes at birth, and their influences on the presentation of congenital heart disease in the neonate.			1	2, 3

GOAL 4: Understand how to diagnose and manage common conditions that generally do not require referral.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Is familiar with management of:				1, 2, 3
1. Acrocyanosis.				1, 2, 3
2. Innocent heart murmur including peripheral pulmonic stenosis.				1, 2, 3

GOAL 5: Understand how to recognize, provide initial management of, and refer cardiovascular conditions in children which generally require referral.

COMPETENCIES: (PC, MK, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Is familiar with initial management and indications for referral of:				
1. Cardiac chest pain	1		2	3
2. Pathologic heart murmur	1		2	3
3. Syncope	1		2	3
4. Tachyarrhythmia	1		2	3
5. Acute rheumatic fever	1		2	3
6. Kawasaki syndrome	1		2	3
7. Myocarditis/pericarditis/cardiomyopathy	1		2	3

GOAL 6: Understand key principles related to the use of cardiovascular drugs.

COMPETENCIES: (MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Knows the indications, contraindications and complications for drugs such as:				
1. Antiarrhythmics	1		2	3
2. Digoxin	1		2	3
3. Diuretics	1		2	3
4. Inotropes	1		2	3
5. Vasodilators	1		2	3

GOAL 7: Understand the pediatrician's role in the prevention of morbidity from cardiovascular disease.

COMPETENCIES: (PC, MK, PBLI, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Defines the indications for prophylaxis of subacute bacterial endocarditis, and describes the appropriate antibiotic treatment regiments for prophylaxis.			1	2, 3
2. Demonstrates knowledge of appropriate antibiotic treatment regimens for prophylaxis of rheumatic fever.			1	2, 3
3. Recognizes cardiac conditions which warrant influenza immunizations, chemoprophylaxis, and/or antiviral treatment for respiratory viruses (influenza, RSV).			1	2, 3
4. Recognizes the role of appropriate restrictions to exercise, gym classes, and sports for the child with cardiac disease.		1	2	3
5. Recognizes the pediatrician's role in the development of heart healthy lifestyles including diet, exercise, and prevention of tobacco addiction.			1	2, 3
6. Describes the screening, evaluation, and treatment strategies for hypercholesterolemia.			1	2, 3
7. Describes the treatment strategies for tobacco addiction.			1	2, 3
8. Describes the screening, evaluation, and treatment strategies for hypertension.			1	2, 3

Overall Competencies for the Pediatric Residency Training Program

CHILD ABUSE & NEGLECT

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Child Abuse and Neglect: Understand the significance of child abuse and neglect and the pediatrician's role in prevention, detection, and treatment.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	<25%	25-50%	50-75%	75-100%
Pediatrician's Role:				
1. Define the role of the general pediatrician in preventing, identifying, evaluating, and managing child abuse victims suffering from:				
a. Physical abuse.			1	2,3
b. Neglect.			1	2,3
c. Sexual abuse.			1	2,3
d. Psychological/emotional abuse.			1	2,3
2. Discuss the role of child abuse experts in one's community and how the pediatrician should best work with them for optimal care of abused children.			1	2,3
3. Discuss the magnitude of abuse and neglect in American children.			1	2,3
4. Describe local/state laws for reporting and cooperate with members of the multidisciplinary team and law enforcement officials in the investigation of potential abuse.		1	2	3
5. Assume responsibility for the identification, evaluation, and management of abused and neglected children.				1,2,3
6. Demonstrate sensitivity to the emotional upheaval experienced by the child, non-offending caregiver, and clinical staff when the diagnosis of child abuse is considered.				1,2,3
7. Think critically about the facts of the case and strive to be objective in reaching conclusions.				1,2,3
8. Discuss cultural and ethnic issues in abuse and neglect, including home remedies that can be confused with abuse.		1	2	3
9. Discuss principles of treatment and possible long-term sequelae for abused or neglected children.			1,2	3
Evaluation and Management:				
10. Identify risk factors predisposing to abuse/neglect (e.g. previously abused parent, lack of social support).			1,2	3
11. Describe the constellation of historical, physical examination, and laboratory findings that are associated with the four sub-categories of child abuse.			1	2,3
12. Discuss the importance of nonspecific behavioral complaints in the presentation and evaluation of sexual abuse.			1,2	3
13. Discuss issues regarding the timing, setting, appropriate professional personnel, and equipment (e.g., colposcope, lab services) for evaluation of sexual abuse.		1	2	3
14. Conduct an appropriate interview of caretaker and/or child when abuse is suspected.				1,2,3
15. Demonstrate technically proficient and appropriately sensitive physical examination for the potentially physically abused child.				1,2,3
16. Demonstrate technically proficient and appropriately sensitive physical exam for the potentially sexually abused child, including proper technique for collecting laboratory and forensic specimens in the evaluation of possible sexual abuse.	1	2		3
17. Identify common variants of normal genital anatomy, and explain why the majority of children suspected to be victims of sexual abuse do not have physical findings.		1	2	3
18. List indications for and describe interpretations of lab tests and x-ray studies in the evaluation of abuse, and identify findings suggestive of abuse.			1	2,3
19. Perform appropriately detailed documentation of abuse history, physical findings, and results of studies, and correctly report the suspicion of abuse according to state requirements and procedures.			1	2,3
20. Discuss differential diagnosis, including entities that may mimic sexual or physical abuse; compare clinical findings associated with intentional versus unintentional childhood injuries.		1,2		3
21. Discuss key issues for pediatricians called to testify in court about abuse/neglect.		1,2		3

22. Discuss local resources for evaluation, referral, and follow-up.		1,2		3
Prevention:				
23. Discuss prevention strategies for decreasing the number of children at risk for abuse and neglect and apply these strategies in the well child care setting.				1,2,3
24. Implement in the well child setting counseling strategies for parents and children that may reduce abuse and neglect (e.g., discussion of age-appropriate behavior and safety measures such as avoidance of shaking baby; need for supervision; discipline counseling; teaching children "safe touch" rules).				1,2,3

GOAL 2: Violence: Understand and assess in patients the risk factors for violence, provide effective preventive counseling, and understand multidisciplinary and community approaches to intervention.

COMPETENCIES: (PC, MK, IC)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Describe the relationship between exposure to violence and subsequent mental health problems, including post-traumatic stress disorder.			1,2	3
2. Describe the relationships between spouse abuse and child abuse, and child abuse and violent behavior later in life.			1	2,3
3. Demonstrate skill in dealing with family violence/spouse abuse, including:				
a. Using effective interview techniques to elicit information regarding domestic violence.			1,2	3

McGAW MEDICAL CENTER of NORTHWESTERN UNIVERSITY

Ann & Robert H. Lurie Children's Hospital of Chicago

Overall Competencies for the Pediatric Residency Training Program

COMMUNITY MEDICINE & ADVOCACY

Goals and Competencies

Goals:

1) To increase resident competency in identifying major public health principles and issues

2) To acquaint the resident with the larger structure of healthcare delivery

3) To explore the concept of the child within the context of his environment, to improve the residents competency in evaluating the role of social determinants on health and disease and to incorporate this understanding into strategies of disease management.

4) To introduce the resident to the principles of health advocacy and the physician role in that process. Emphasis will be placed on understanding the various factors that affect a given public health issue, including the importance of stake-holders and collaborators and the important role pediatricians can play in providing the evidence base for the justification of advocacy initiatives.

Specific Requirements:
General time spent during rotation is 120 hours.

1. **Literature-20%**
   a. The literature portion includes the bibliography for the rotation as well as some of the background research for the projects. The bibliography is currently located on the RESNET site as well as in the folder.
   b. 12 of the articles in the bibliography are starred- Please read all that catch your interest but do read these.
   c. It also includes any background research that may be required for a talk given to community groups while on the rotation.

2. **Community Experiences-25%**
   a. The resident will visit a diverse selection of community organizations during the rotation; these may include CDPH Lead Inspection, WIC, mutual aid societies/social service and Poison Control Center. There is a list of objectives for each experience which represent the minimum information one should glean from the site visit. At a few of these sites, the residents will be giving talks, either to a pediatric aged population, their guardians or the staff of that organization. This is an opportunity to hone skills in a type of community advocacy; education of the lay public in the area of preventive health and health management.

3. **Introduction to Advocacy-5%**
    a. We have partnered with the IL Chapter of the AAP to introduce the resident to legislative advocacy and an overview of the chapter's initiatives- Project REACH. This is a formal session with a staff of ICAAP as well as residents from other programs.

4. **Social Determinants Community AND Advocacy Project-30%** See attachment.
    a. There will be 3 intermediate meetings during the rotation to discuss the development of this product, social determinants (and Adverse Childhood events)
    b. The project will be presented at the end of the rotation in the format of an initial presentation and a group discussion involving the rotation residents and the Medical Director of the rotation. An electronic document should guide the presentation; each resident should have one centered on their patient and community- although , if appropriate, the residents can collaborate is they have the same public health issue they are exploring

5. **Sessions-20%**
    a. There is an introductory session
        i. Introductions/experience
        ii. Summary of rotation- Activities, expectations, clarification, evaluation process
    b. Overview of Public Health and Public Health topics, i.e. social determinants, adverse childhood events
    c. There are 1-2 midway sessions
        i. Project discussion
    d. There is an End of Rotation Session
        i. Interactive discussion of resident projects
        ii. Discussion of Sites/ Completion of Survey Monkey

6. **Evaluation**
    c. Survey Monkey Evaluation of Sites by residents
    d. On Line Evaluations of Residents

Overall Competencies for the Pediatric Residency Training Program

CONTINUITY CLINIC

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement; IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

I. HEALTH SUPERVISIONS:

GOAL 1: General Principles: Core Concepts About Health Supervision. Understand basic concepts about the process of providing health supervision care at office visits; demonstrate this understanding during actual visits with patients receiving continuing care.

COMPETENCIES: (PBLI, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Explain the main goals for health supervision visits at each age group, from the perspective of the parents, the child, and the practice.			1	2,3
2. Identify recommended periodicity schedules (e.g., AAP, *Bright Futures*) for routine health supervision visits; discuss the rationale behind these.			1	2,3
3. Identify recommended guidelines (e.g., AAP, *Bright Futures*) for visit content and discuss the rationale behind these.			1	2,3
4. Identify practical office strategies to accomplish these goals (e.g., share tasks with office staff, use structured records, time saving computers, questionnaires, and handouts/videos).		1	2	3

GOAL 2: Prenatal Visit: Understand the importance of and approach to the prenatal office visit.

COMPETENCIES: (PBLI, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. List the main goals of this visit for the parents, the pediatrician and the practice			1,2	3
2. Describe when the prenatal visit should be scheduled and who should be encouraged to attend			1,2	3

GOAL 3: Infancy (0-12 months): Understand the goals, rationale, and strategies for health supervision visits in the first year of life.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Use history, physical exam, and standard recommended screening procedures in the context of health supervision visits in infancy			1	2,3
2. Provide health supervision related to feeding and nutrition.			1	2,3
3. Provide health supervision related to development and behavior during infancy			1	2,3
4. Describe health supervision counseling in infancy to enhance basic parenting skills, promote healthy family interactions, and support parents.			1	2,3
5. Provide health supervision related to environmental safety and injury prevention for infants.			1	2,3

GOAL 4: Early Childhood (1-5 years): Understand the goals, rationale and strategies for health supervision visits for toddlers and preschoolers.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	<25%	25-50%	50-75%	75-100%
1. Use history, physical exam, and standard screening procedures in the context of health supervision visits in early childhood.			1	2,3
2. Provide health supervision related to physical growth, nutrition, and feeding behaviors in early childhood.			1	2,3
3. Provide health supervision related to development in the 1-5 age group.			1	2,3
4. Provide health supervision related to behavior and psychosocial support for families during early childhood.			1	2,3
5. Provide health supervision related to day care, preschool, and kindergarten			1	2,3
6. Provide health supervision care related to injury prevention for 1 to 5 year olds.			1	2,3

GOAL 5: Middle Childhood (5-11 years): Understand goals and strategies for office health supervision visits for school age children.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Use history, physical exam, and standard screening procedures in the context of health supervision visits for school age children.			1	2,3
2. Provide health supervision related to growth and nutrition for school age children.			1	2,3
3. Provide health supervision related to development and behavior for school age children and psychosocial support for their families.			1	2,3
4. Provide health supervision related to school health issues for children 5-11 years of age.			1	2,3
5. Provide health supervision related to injury prevention for school age children.				

GOAL 6: Adolescence (11-20 years): Understand key strategies for scheduling and organizing health supervision care visits for adolescents.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Obtain an effective adolescent history and perform a physical examination, including issues related to confidentiality and privacy.			1	2,3
2. Desribe the principles of and be able to perform standard laboratory procedures for adolescent health screening. (See also screening section).			1	2,3
3. Provide health supervision for adolescents related to healthy diet and eating patterns.			1	2,3
4. Provide health supervision related to the psychosocial development of adolescents.			1	2,3
5. Provide health supervision for adolescents related to education, school performance, and school-related behaviors.			1	2,3
6. Provide health supervision for adolescents related to healthy physical activity.			1	2,3
7. Provide supervision related to adolescent injuries.				
8. Provide health supervision for adolescents related to sexual issues.		1	2	3
9. Provide health supervision for adolescents related to tobacco use.		1	2	3
10. Provide health supervision for adolescents related to substance abuse.		1	2	3
11. Provide health supervision for adolescents related to depression and suicide.		1	2	3

GOAL 7: Screening: Understand the principles of screening in pediatrics and the current screening strategies used.

COMPETENCIES: (MK, PBLI, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Descibe currently recommended screening strategies for				
a. Anemia			1	2,3
b. Lead			1	2,3
c. Urinanlysis			1	2,3
d. Cholesterol			1	2,3
e. TB			1	2,3
f. Vision			1	2,3
g. Hearing			1	2,3
h. Newborn screening			1	2,3

GOAL 8: Immunizations: Understand how to use vaccines to prevent common childhood diseases.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Describe the currently recommended immunization schedules for preventing infections in children			1	2,3
2. For each of the commonly used vaccines, provide immunization couseling including contraindications, common side effects and benefits.			1	2,3
3. Describe and demonstrate proper injection technique for the commonly used pediatric vaccines, including appropriate sites for injection at various ages, method and techniques for safe injection.		1	2	3

II. COMMON PROBLEMS:

GOAL 1: Understand how to assess and manage common childhood conditions cared for in the primary care setting.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. **Allergy and Immunology:** Recognize, diagnose and describe the pathophysiology of, and manage these conditions:				
a. Allergic rhinitis (mild to moderate, seasonal)			1	2,3
b. Allergic conjunctivitis			1	2,3
c. Atopic dermatitis			1	2,3
d. Asthma, mild to moderate			1	2,3
e. Urticaria/Angioedema			1	2,3
f. Food allergies			1	2,3
g. Common drug allergies			1	2,3
h. Insect sting allergy				
2. **Cardiovascular:** Recognize, diagnose and describe the pathophysiology of, and manage these conditions:				
a. Peripheral pulmonic stenosis			1	2,3
b. Tachycardia related to fever			1	2,3
c. Functional heart murmur			1	2,3
d. Small VSD			1	2,3
e. Small PDA		1	2	3
f. Chest pain		1	2	3
g. Mild hypertension (labile)		1	2	3
h. Syncope (simple, uncomplicated)				
3. **Dermatology:** Recognize, diagnose and describe the pathophysiology of, and manage these conditions:				
a. Acne (mild and moderate)				
b. Acute urticaria and erythema multiform		1	2	3
c. Alopecia due to traction, trichotillomania, tinea, or drugs		1	2	3
d. Arthropod and insect bites, scabies, lice			1	2,3
e. Atopic dermatitis (mild and moderate)			1	2,3
f. Common, transient skin lesions in newborns and young infants			1	2,3
g. Contact dermatitis			1	2,3
h. Cutaneous herpes (simplex and zoster)			1	2,3
i. Dermatophyte infections (tinea capitis, kerion, tinea corporis, tinea pedis, tinea versicolor, tinea cruris)			1	2,3
j. Diaper rashes			1	2,3
k. Drug rashes (common and uncomplicated)			1	2,3
l. Hyper and hypopigmented lesions			1	2,3
m. Common bacterial infections of skin and skin structures (e.g., impetigo, furuncles, carbuncles, cellulitis.			1	2,3
n. Molluscum contagiosum (may need referral for treatment)		1	2	3
o. Monilia skin rashes		1	2	3
p. Pityriasis rosea			1	2,3
q. Seborrheic dermatitis (mild and moderate)			1	2,3
r. Strawberry hemangiomas, uncomplicated			1	2,3
s. Warts (may need referral for treatment)				
4. **Endocrinology:** Recognize, diagnose and describe the pathophysiology of, and manage these conditions:				
a. Benign premature adrenarche		1	2	3
b. Benign premature thelarche		1	2	3
c. Delayed puberty due to chronic disease or anorexia nervosa		1	2	3
d. Exogenous obesity			1	2,3
e. Familial short stature, constitutional delay of growth or puberty		1	2	3

f. Gynecomastia in a pubertal male		1	2	3
5. **Gastroenterology:** Recognize, diagnose and describe the pathophysiology of, and manage these conditions:				
a. Gastroenteritis			1	2,3
b. Chronic nonspecific diarrhea			1	2,3
c. Constipation, encopresis			1	2,3
d. Gastroesophageal reflux (mild to moderate)			1	2,3
e. Giardiasis			1	2,3
f. Lactose intolerance			1	2,3
g. Milk protein intolerance			1	2,3
h. Recurrent abdominal pain of childhood		1	2	3
6. **Genitourinary:** Recognize, diagnose and describe the pathophysiology of, and manage these conditions:				
a. Urinary tract infection (pyelonephritis and cystitis)			1	2,3
b. Balanitis/Oposthitis			1	2,3
c. Nonspecific urethritis			1	2,3
d. Prepubertal vaginitis			1	2,3
e. Labial adhesions			1	2,3
f. Penile adhesions (small)			1	2,3
g. Hydrocele in infancy			1	2,3
h. Genital trauma (minor, non-abusive)		1	2	3
7. **Hematology and Oncology:** Recognize, diagnose and describe the pathophysiology of, and manage these conditions:				
a. Iron deficiency			1	2,3
b. Thalassemia trait		1	2	3
c. Transient erythropenia of infancy or childhood		1	2	3
d. Minor, common reactions to blood transfusions		1	2	3
e. Sickle cell trait			1	2,3
f. Uncomplicated Henoch Schonlein Purpura		1	2	3
g. Mild neutropenia secondary to a viral infection				
h. Mild suppression of hematologic parameters secondary to prescription drugs (e.g. TMP/SMX)		1	2	3
8a. **Infectious Disease:** Recognize, diagnose and describe the pathophysiology of, and manage these conditions:				
a. Fever: in the neonate, in infants, children, in immunocompromised host, without localizing features or associated with rash/petechiae/purpura			1	2,3
b. Respiratory: Ear pain, sore throat, runny nose, cough, sinus pain, tooth pain, stridor			1	2,3
c. Gastrointestinal: Vomiting, diarrhea, abdominal pain			1	2,3
d. Genitourinary: Urinary pain or frequency, hematuria, penile or vaginal discharge			1	2,3
e. Musculoskeletal: Painful or swollen joints and bones, limp, puncture wounds, skin changes, pain, or erythema			1	2,3
f. Lymphatic: Adenopathy with or without fever or pain			1	2,3
g. Ophthalmology: Conjunctival drainage, orbital swelling or redness			1	2,3
h. Oral: Tooth pain, facial swelling			1	2,3
8b. **Infectious Disease:** Recognize and manage these conditions:				
a. Viral exanthems: Measles, varicella, herpes simplex, parvovirus, rubella, roseola.		1	2	3
b. Zoonoses/Arthropod borne: rocky mountain spotted fever, cat scratch disease, Stage 1 or 2 Lyme disease		1	2	3
c. Parasites: Pinworms, toxocara canis, ascariasis, hookworm			1	2,3
d. Other: Infectious mononucleosis syndrome (EB virus, CMV, toxoplasma, etc.), RSV, influenza, enterovirus, adenovirus, lymphadenitis			1	2,3
9. **Nephrology:** Recognize, diagnose and describe the pathophysiology of, and manage these conditions:				
a. Electrolyte disturbances of sodium or potassium			1	2,3
b. Dehydration			1	2,3

c. Orthostatic proteinuria			1	2,3
d. Mild hypertension		1	2	3
10. **Neurology:** Recognize, diagnose and describe the pathophysiology of, and manage these conditions:				
a. Febrile seizures			1	2,3
b. Migraine and tension headaches			1	2,3
c. Mild closed head trauma and simple linear skull fractures			1	2,3
11. **Ophthalmology:** Recognize, diagnose and describe the pathophysiology of, and manage these conditions:				
a. Conjunctivitis			1	2,3
b. Corneal abrasion			1	2,3
c. Periorbital cellulitis			1	2,3
d. Hordeolum			1	2,3
e. Blocked lacrimal duct			1	2,3
f. Simple foreign bodies			1	2,3
12. **Orthopedics:** Recognize, diagnose and describe the pathophysiology of, and manage these conditions:				
a. Dislocated radial head			1	2,3
b. Femoral anteversion and retroversion		1	2	3
c. Flat feet			1	2,3
d. Internal and external tibial torsion		1	2	3
e. Low back strain		1	2	3
f. Metatarsus adductus not requiring casting		1	2	3
g. Muscle strains			1	2,3
h. Non-displaced finger and toe fractures			1	2,3
i. Osgood-Schlatter's			1	2,3
j. Overuse syndromes			1	2,3
k. Simple joint sprains			1	2,3
l. Scoliosis with a curve < 20 degrees unless in a young child or associated with other spinal or neurologic abnormalities.		1	2	3
m. Torticollis		1	2	3
13. **Otolaryngology:** Recognize, diagnose and describe the pathophysiology of, and manage these conditions:				
a. Allergic rhinitis			1	2,3
b. Blunt nasal trauma			1	2,3
c. Epistaxis, uncomplicated			1	2,3
d. Otitis media and externa, uncomplicated			1	2,3
e. URI			1	2,3
f. Pharyngitis (viral and streptococcal)			1	2,3
g. Simple nasal and ear canal foreign bodies			1	2,3
14. **Pulmonary:** Recognize, diagnose and describe the pathophysiology of, and manage these conditions:				
a. Asthma (mild and moderate)			1	2,3
b. Bronchiolitis			1	2,3
c. Chest pain			1	2,3
d. Croup			1	2,3
e. Follow up of apnea of prematurity		1	2	3
f. Pneumonia (bacterial, viral)			1	2,3
15. **Rheumatology:** Recognize, diagnose and describe the pathophysiology of, and manage these conditions:				
a. Benign musculoskeletal pain		1	2	3
b. Drug reactions with associated arthralgias or arthritis (e.g. serum sickness)			1	2,3
c. Growing pains (idiopathic limb pains of childhood)			1	2,3
d. Henoch-Schonlein Purpura (uncomplicated)			1	2,3
e. Transient (toxic) synovitis		1	2	3

McGAW MEDICAL CENTER of NORTHWESTERN UNIVERSITY

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Overall Competencies for the Pediatric Residency Training Program

CRITICAL CARE MEDICINE

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Resuscitation and Stabilization (Critical Care): Understand how to rapidly resuscitate and stabilize the critically ill child in the PICU setting.

COMPETENCIES: (PC, MK, IC, P)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Explain and perform steps in resuscitation and stabilization, particularly airway management and resuscitation pharmacology.	1		2	3
2. Describe the common causes of acute deterioration in the previously stable PICU patient.	1		2	3
3. Function appropriately in codes and resuscitations as part of the PICU team.	1		2	3

GOAL 2: Common Signs and Symptoms (Critical Care): Understand how to evaluate and manage common signs and symptoms seen in critically ill children, including when to transfer to an intensive care setting.

COMPETENCIES: (PC, MK, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
For each of the following signs and symptoms which may herald the onset of serious or life-threatening events in infants, children or adolescents:				
1. Rapidly recognize the sign and symptom as heralding the onset of disease or injury and perform a directed pertinent history and physical examination.	1		2	3
2. Formulate an age-appropriate differential diagnosis.	1		2	3
3. Discuss indications for admission to and discharge from the PICU, and indications for emergent intervention, as well as procedures for stabilization prior to transport to the PICU.	1		2	3
4. Devise a plan for stabilization, further evaluation, and definitive management, and be able to describe the physiologic basis for therapies.	1		2	3
List of Signs and Symptoms (PICU):				
1. **Cardiovascular**: Bradycardia, tachycardia, cardiopulmonary arrest, hypertension, hypotension, rhythm disturbances, and poor capillary perfusion.	1		2	3
2. **GI**: Abdominal distension, acute gastrointestinal hemorrhage, peritoneal signs, and vomiting.	1		2	3
3. **Hematologic**: Petechiae, purpura, polycythemia, anemia, neutropenia, thrombocytopenia.	1		2	3
4. **Neurologic**: altered mental status, coma, delirium, encephalopathy, seizures, thermoregulatory abnormalities, acute weakness, tetany.	1		2	3
5. **Renal**: Anuria, hematuria, oliguria, polyuria.	1		2	3
6. **Respiratory**: Tachypnea, dyspnea, apnea, cyanosis, increased or decreased respiratory effort, poor air movement, stridor, wheezing, and pulmonary edema.	1		2	3

GOAL 3: **Common Conditions (Critical Care):** Understand how to manage certain common diagnoses (reasonably expected of general pediatricians) in the PICU setting.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
For each of the following diagnosis which may require PICU monitoring and management:				
1. Discuss the pathophysiologic basis of the disease or injury.	1		2	3
2. Discuss indications for admission to and discharge from the PICU.	1		2	3
3. Discuss stabilization, further work-up and management.	1		2	3
4. Explain potential acute and long-term consequences and complication of the disease and treatment, and be able to evaluate prognosis.				
a. General: Submersion injury, shock (cardiogenic, hypovolemic, septic, toxic) and common intoxications.	1		2	3
b. Cardiovascular: Congestive heart failure [if large cardiac surgery service, also pericardial effusion, cardiac tamponade].	1		2	3
c. Fluids, electrolytes, metabolic: Severe dehydration, diabetic	1		2	3

ketoacidosis, syndrome of inappropriate secretion of antidiuretic hormone (SIADH), diabetes insipidus.				
d. GI/Surgery: Stress ulcer, massive GI bleeding, abdominal trauma (blunt/penetrating), acute abdomen, pre-op and post-op management.	1		2	3
e. Hematologic: Disseminated intravascular coagulopathy (DIC).	1		2	3
f. Infectious disease: Sepsis, meningitis, encephalitis.	1		2	3
g. Neurologic: Head injury, acute increased intracranial pressure, cerebral edema, status epilepticus.	1		2	3
h. Pulmonary: Adult respiratory distress syndrome (ARDS), respiratory failure/ impending respiratory failure, status asthmaticus, pneumothorax, upper airway obstruction (infectious, structural, foreign body).	1		2	3

GOAL 4: Diagnostic Testing (Critical Care): Understand how to use and interpret laboratory and imaging studies in the PICU, which can be reasonably expected of general pediatricians.

COMPETENCIES: (MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
For the laboratory or diagnostic tests in the lists below:				
Explain the indications and limitations and be aware of age-appropriate normals.	1		2	3
Interpret abnormalities in the context of specific physiologic derangement.	1		2	3
Discuss therapeutic options for corrections when appropriate.	1		2	3
List of Laboratory Tests (PICU):				
1. CBC, differential, platelets, indices	1		2	3
2. Blood chemistries: electrolytes, calcium, magnesium, glucose	1		2	3
3. Tests of liver function and damage	1		2	3
4. Renal function tests	1		2	3
5. Arterial blood gases	1		2	3
6. Coagulation studies: platelets, PT/PTT, fibrinogen, FSP, D-dimers, "DIC screen"	1		2	3
7. Urinalysis	1		2	3
8. CSF analysis	1		2	3
9. Cultures and other diagnostic tests for infectious agents	1		2	3
10. Drug levels and toxicological studies	1		2	3
List of Imaging Studies (PICU):				
1. Chest x-ray	1		2	3
2. Abdominal series	1		2	3
3. Skeletal survey	1		2	3
4. Cervical spine films	1		2	3
5. CT scans	1		2,3	

GOAL 5: Monitoring and Therapeutic Modalities (Critical Care): Understand the application of physiologic monitoring and special technology and treatment in the PICU setting.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. For each of these invasive techniques, describe the indications and general technique and appropriately interpret the results of such monitoring (not necessarily perform the procedure):				
a. CVP	1		2	3
b. Intracranial monitoring	1		2	3
2. For the common therapies listed, integrate understanding of physiology and pathophysiology to determine the appropriate use of therapy and how to monitor its effect; and describe potential complications of therapy:				
a. Oxygen administration by cannula, masks, hood	1		2	3
b. Positive pressure ventilation	1		2	3
c. Basic ventilator management	1		2	3
d. Analgesics, sedatives, and paralytics	1		2	3
e. Enteral and parenteral nutrition	1		2	3
f. Blood and blood product transfusions	1		2	3
g. Vasoactive drugs (pressors and inotropes)	1		2	3

GOAL 6: Management and Decision-Making (Critical Care): Develop case management skills for complex multi-problem patients under high stress situations, under the supervision of an intensivist, using principles of decision-making and problem solving and understanding one's own limits.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Develop and maintain a detailed problem list with accurate prioritization.	1		2	3
2. Coordinate with multiple consultants involved in the case of the patient.	1		2	3
3. Coordinate orderly transfer of care to another provider when PICU care is no longer needed.	1		2	3
4. Consistently act responsibly and adhere to professional standards for ethical and legal behavior.	1			2,3
5. Recognize the limits of one's knowledge, skills and tolerance for stress level; ask for help as needed.	1		2	3

GOAL 7: Teamwork and Consultation (Critical Care): Understand how to function effectively as a team member in the PICU.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Communicate well and work effectively with fellows, attendings, consultants, nurses, ancillary staff, and referring physicians.	1			2,3
2. Know how to assist referring physicians in preparing a patient for transport to the PICU.	1		2	3
3. Provide pediatric consultation to surgeons and other specialists who manage children in the PICU.	1		2	3

GOAL 8: Patient Support and Advocacy (Critical Care): Understand how to provide comprehensive and supportive care to the PICU patient and his/her family.

COMPETENCIES: (PC, MK, IC, P, SBP)	<25%	25-50%	50-75%	75-100%
1. Recognize and evaluate the psychosocial needs of acutely ill children and their families, both during the immediate illness and during recovery.	1			2,3
2. Demonstrate respect, sensitivity, and skill in dealing with death and dying with the child, the family, and other health care professionals.	1			2,3
3. Communicate well with children and families.	1			2,3
4. Identify problems and risk factors in the child and family even outside the scope of this ICU admission; appropriately intervene or refer (e.g., injury prevention; importance of anticipatory guidance in teaching parents about the early signs and symptoms of serious, life-threatening diseases).	1			2,3

GOAL 9: Medical Ethics and Legal Issues (Critical Care): Become familiar with ethical and medical-legal considerations in the care of critically ill children

COMPETENCIES: (PC, MK, P, SBP)	<25%	25-50%	50-75%	75-100%
1. Discuss concepts of futility, withdrawal, and withholding of care.	1		2	3
2. Define brain death and describe criteria for organ donation.	1		2	3
3. Describe hospital policy on "Do Not Resuscitate" orders.	1		2	3

GOAL 10: Medical Records (Critical Care): Understand how to maintain accurate, timely and legally appropriate medical records on complex and critically ill children.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	<25%	25-50%	50-75%	75-100%
1. Maintain daily, timed notes, with updates as necessary, clearly documenting the patient's progress and details of the ongoing evaluation and plan.	1			2,3
2. Prepare appropriate and timely discharge and transfer notes.	1			2,3

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Overall Competencies for the Pediatric Residency Training Program

DERMATOLOGY

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Normal Versus Abnormal (Dermatology): Understand how to differentiate between normal and pathological skin findings.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Distinguish skin lesions/findings that are normal, transient, and/or clinically insignificant from those that warrant observation evaluation, or treatment.	1	2	3	
2. Develop a logical, scientifically sound approach to the evaluation of skin findings.	1		2	3

GOAL 2: Prevention (Dermatology): Understand the pediatrician's role in preventing illness related to skin disorders.

COMPETENCIES: (PC, MK, PBLI, IC, P)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Counsel parents and children about skin cancer prevention/sun protection.		1	2	3
2. Counsel parents about strategies to reduce mite, lice, spider, insect, and tick bites, including use of repellents appropriate for children.	1		2	3

GOAL 3: Key Principles in Dermatology: Understand the key diagnostic and management principles related to dermatology.

COMPETENCIES: (PC, MK, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Describe the differential diagnosis of scaling lesions, macular or papular lesions, vesiculobullous lesions, pustular lesions, purpuric lesions, and hypopigmented and hyperpigmented lesions.	1	2	3	
2. Demonstrate proper use of common dermatologic preparations, considering cost, convenience, efficacy (e.g., creams vs. lotions vs. ointments; topical steroids of varying potency; compresses, topical and systemic antibiotics, etc.)	1	2	3	

GOAL 4: **Common Conditions Often Not Referred (Dermatology):** Understand how to diagnose and manage dermatological conditions generally not requiring referral.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Identify, describe the pathophysiology of, and manage these conditions:				
a. Acne (mild and moderate)	1	2		3
b. Acute urticaria and erythema multiforme.	1	2	3	
c. Arthropod and insect bites, scabies, lice.	1		2	3
d. Atopic dermatitis (mild and moderate)	1		2	3
e. Common, transient skin lesions in newborns and young infants.	1		2	3
f. Allergic contact dermatitis (poison ivy, oak, sumac).	1		2	3
g. Cutaneous herpes (simplex and zoster).	1	2	3	
h. Dermatophyte infections (tinea capitis, kerion, tinea corporis, tinea pedis, tinea versicolor).	1	2		3
i. Diaper dermatitis – irritant, candidal.	1		2	3
j. Drug eruptions (common and uncomplicated).	1	2	3	
k. Impetigo	1		2	3
l. Benign – appearing nevi (moles).	1	2	3	
m. Intertrigo	1	2		3

	<25%	25-50%	50-75%	75-100%
n. Molluscum contagiosum	1		2	3
o. Pityriasis rosea	1	2		3
p. Seborrheic dermatitis (mild and moderate)	1		2	3
q. Infantile hemangiomas, uncomplicated.	1	2	3	
r. Warts.		1	2	3
2. Proficiency in diagnostic office-based procedures (refer to basic skills 2, 4, 5, 6)				
a. Performing and interpreting potassium hydroxide (KOH) examination.	1		2	3
b. Obtaining a sample for direct fluorescent antibody (DFA) examination.	1	2	3	
c. Obtaining a sample for fungal culture.		1	2	3
d. Obtaining and interpreting a mineral oil scraping.	1	2	3	
3. Proficiency in diagnostic office-based procedures (refer to basic skills 7, 8)				
a. Observing skin biopsy technique and understanding procedure.		1	2	3

GOAL 5: Conditions Generally Referred (Dermatology): Understand how to recognize, provide initial management, and refer dermatological conditions which generally require referral.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Recognize, provide initial management of, and refer appropriately these conditions:				
a. Acne, severe and/or cystic		1	2	3
b. Chronic urticaria	1	2	3	
c. Genetic skin disorders (ichthyosis, epidermolysis bullosa, etc.)	1	2	3	
d. Dermatologic findings of serious systemic disorders.	1	2	3	
e. Drug eruptions (severe).		1	2	3
f. Moderate to severe atopic dermatitis	1		2	3
g. Onychomycoses	1	2,3		
h. Atypical congenital or acquired nevi.	1	2		3
i. Psoriasis and lichen planus	1	2,3		
j. Skin conditions listed above which do not conform to classical patterns or respond to conventional therapy.	1	2,3		
k. Warts (complicated)		1	2	3
l. Alopecia areata.	1	2,3		
2. Recognize, provide initial management of, and/or rapidly refer the following skin legions:				
a. Melanoma.	1	2		3
b. Skin eruption associated with systemic disease.	1	2	3	
c. Newborn with blisters.	1	2	3	

GOAL 6: Atopic Dermatitis: Understand how to diagnose and manage atopic dermatitis.

COMPETENCIES: (PC, MK, PBLI, IC, P)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Summarize the clinical features of atopic dermatitis.	1	2		3
2. Describe presentation and generate differential diagnosis.	1	2		3
3. Describe management of mild to moderate atopic dermatitis including skin care, use of topical anti-inflammation, and cost of therapy.	1	2		3
4. List conditions, which may complicate atopic dermatitis and discuss appropriate treatment (bacterial and viral infection).	1		2	3
5. Counsel parents and children regarding natural history of disease.	1		2	3

GOAL 7: **Acne:** Understand how to manage mild and moderate acne.

COMPETENCIES: (PC, MK)	<25%	25-50%	50-75%	75-100%
1. Describe acne lesions.	1		2	3
2. Recognize exacerbating factors.	1	2	3	
3. Recognize the clinical features of mild to severe acne.	1		2	3
4. Understand the correct use of medications for acne management (e.g., benzoyl peroxide, retinoids, topical antibiotics).	1		2	3
5. Understand the role and possible risks of systemic antibiotics in acne management.	1	2	3	
6. Describe a step-wise approach to the management of acne, based on severity and types of lesions present.	1		2	3
7. Identify indications for referral of acne.	1	2	3	
8. Be comfortable addressing common psychosocial ramifications of acne.	1	2		3

Overall Competencies for the Pediatric Residency Training Program

EMERGENCY MEDICINE

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Common Signs and Symptoms (ED): Understand how to evaluate and manage common signs and symptoms in infants, children, and adolescents presenting to the ED and urgent care center.

COMPETENCIES: (PC, MK, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
For the symptoms and signs listed below:				
A. Perform an appropriate problem-oriented history and physical examination.			1	2,3
B. Formulate a differential diagnosis, with appropriate prioritization, recognizing patients with possible life-threatening conditions.			1	2,3
C. Formulate and carry out a plan for assessment and management.			1,2	3
D. Describe indications for admissions to the ward or PICU or for transfer to another facility.			1,2	3
E. Arrange appropriate follow-up.				1,2,3
List of signs and symptoms which present emergently:				
1. **General:** Septic or ill-appearing infant/child, unexplained crying, fever, hypothermia, ATLE (acute life threatening event), sudden death, weight loss, disturbed child, dehydration, alleged or suspected child abuse or neglect.		1	2	3
2. **Allergy/Immunology:** Acute allergic reactions.		1		2,3
3. **Cardiorespiratory:** Apnea, respiratory distress, tachypnea, respiratory failure, cyanosis, tachycardia, bradycardia, cough, wheezing, chest pain, palpitations, stridor, foreign body aspiration, hypertension, hypotension.		1		2,3
4. **Dermatologic:** Skin rash, hair loss, itching.			1	2,3
5. **EENT:** Dizziness, nosebleed, sore throat, painful swallowing, earache, ear discharge, sudden hearing loss, red eye, abnormal pupils or eye movement, visual disturbances, eye pain.		1	2	3
6. **Endocrine:** Known diabetic with acute symptoms, polydipsia, polyphagia.		1	2	3
7. **GI:** Abdominal pain, distension, diarrhea, vomiting, constipation, foreign body ingestion, GI bleeding, jaundice, difficulty swallowing.		1	2	3
8. **GU/renal:** Edema, decreased or increased urination, bloody or discolored urine, dysuria, groin or scrotal mass or pain.		1	2	3
9. **GYN:** Menstrual problems, vaginal bleeding, vaginal discharge.		1	2	3
10. **Hematology/Oncology:** Abnormal bleeding, bruising, petechiae, masses, hepatosplenomegaly, lymphadenopathy, pallor, acute illness or fever in a neutropenic child/cancer patient.		1	2	3
11. **Musculoskeletal:** Limb pain, limp, arthralgia, joint swelling, inability to move an extremity, trauma to neck, back or extremities, back pain.		1	2	3
12. **Neurologic:** Ataxia, coma, lethargy, confusion, fainting spells, seizures, headache, weakness or paralysis, bulging fontanel, stiff neck, head injury, dizziness.		1	2	3
13. **Psychiatric:** Depression and thoughts of suicide, hysteria, anxiety.		1	2	3
14. **Surgery/trauma:** Traumal lacerations, burns, acute abdomen (Note: for major trauma, work with surgical trauma team).		1	2	3

GOAL 2: Common Conditions (ED): Understand how to manage common illnesses and injuries presenting emergently.

COMPETENCIES: (PC, MK, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
For the emergent conditions in the list below:				
A. Discuss the pathophysiologic basis of the disease or injury.			1	2,3
B. Discuss and implement initial rapid assessment and stabilizing treatment, including specialized examinations when indicated (e.g., pelvic, forensic exam).	1		2	3
C. Make a decision regarding discharge from the ED, admission, or transfer.		1		2,3
D. Discuss the appropriate use of consultants and the role of the generalist in management.		1	2	3

List of common diagnoses which present emergently:				
1. **Allergy/Immunology:** Asthma, anaphylaxis, angioedema, serum sickness, HIV/AIDS, acute illness in an immunocompromised child.	1		2	3
2. **Cardiovascular:** Acute hypertension, congestive heart failure, pericarditis, dysrhythmias (asystole, bradycardia, SVT, ventricular fibrillation and tachycardia, electromechanical dissociation), shock (hypovolemic, cardiogenic, spinal, septic), Kawasaki's disease, acute illness in a patient with congenital heart disease [less common but important to recognize: endocarditis, myocarditis, rheumatic fever].	1		2	3
3. **Dermatology:** Acute drug reactions, contact dermatitis, bacterial, viral, and fungal infections of skin and hair, scabies, pediculosis, cutaneous manifestation of systemic and/or contagious diseases.		1	2	3
4. **Endocrine:** Diabetes and ketoacidosis, hypoglycemia, hypocalcemia, hypo- and hypernatremia, diabetes insipidus, SIADH, acute illness in a child with underlying endocrine/metabolic disese [less common but important to recognize: thyroid storm, congenital adrenal hyperplasia, acute adrenal insufficiency, infant presenting with inborn error of metabolism].	1		2	3
5. **GI/Surgical:** Acute abdomen, peritonitis, bowel obstruction, ileus, appendicitis, malrotation, peptic ulcer disease, pyloric stenosis, intussusception, incarcerated hernia, gastroenteritis, hepatitis, gastroesophageal reflux, dehydration (oral/parenteral rehydration), constipation, biliary tract disease, inflammatory bowel disease, upper and lower GI bleeding, pancreatitis, foreign body in GI tract.	1		2	3
6. **GU/Renal:** Acute renal failure, hematuria, proteinuria, urinary tract infection, phimosis, balanitis, paraphimosis, testicular torsion, epididymitis, STD, edema, renal lithiasis, acute illness in a child on chronic dialysis or with transplanted kidney.	1		2	3
7. **GYN:** Dysfunctional vaginal bleeding, vaginal discharge, PID, pregnancy (intrauterine, ectopic, abortion).	1	2	3	
8. **Hematology/Oncology:** Sickle cell pain crisis, sequestration and chest syndrome, fever in a child with sickle cell disease or leukemia, anemia, thrombocytopenia, coagulopathy, hemophilia with acute trauma, possible tumor (masses).	1		2	3
9. **Infectious Disease:** Otitis media/externa, pharyngitis, cervical adenitis, peritonsillar/retropharyngeal abscess, cellulitis (especially facial/orbital), sinusitis, meningitis, encephalitis, sepsis/bacteremia, fever without source, infected wounds and bites.		1	2	3
10. **Neurologic:** Altered mental status, migraine and muscle contraction headache, febrile seizures, afebrile seizures, status epilepticus, paresis/ paralysis, ataxia, shunt malfunction/infection, increased intracranial pressure.	1		2	3
11. **Ophthalmologic:** Corneal abrasion, conjunctivitis, ocular foreign body, penetrating trauma to the globe, hyphema.	1	2	3	
12. **Orthopedic:** Gait disturbance, sprains, strains, fractures, arthritis, bone and joint infection, common dislocations, Osgood Slatter's Disease.	1		2	3
13. **Otolaryngology:** Epistaxis, foreign body aspiration, epiglottitis, croup, tracheitis.	1		2	3
14. **Respiratory:** Respiratory failure, pneumonia, asthma, status asthmaticus, pneumothorax, bronchiolitis, pleural effusion, smoke inhalation, acute illness in a child with cystic fibrosis, BPD, or severe asthma, SIDS.	1		2	3
15. **Trauma/Surgical:** Burns, closed head injury, skull fractures, soft tissue injury, including lacerations, abrasions and contusions, common dental injuries (with surgeon/trauma team: major trauma to head or face, neck or spine, chest, abdomen, urogenital, major vessels or organs).	1	2	3	
16. **Toxins/Environmental Injuries:** Ingestion/poisoning (unknown substance, and common poisons – acetaminophen, iron, hydrocarbons, tricyclic antidepressants, cough and cold medicines, street drugs, including cocaine), bite and sting injuries, submersion, electrical injury, heat and cold injury.	1	2	3	
17. **Psychiatric:** Depression, suicide attempt/ideation, combative patient, conversion reaction, panic attacks.	1		2	3
18. **Social:** Child abuse or neglect, sexual abuse, rape, substance abuse.	1	2		3

GOAL 3: Diagnostic Testing (ED): Understand how to use and interpret laboratory, imaging studies, and other commonly used diagnostic procedures in the emergency setting.

COMPETENCIES: (PC, MK, PBLI)	**<25%**	**25-50%**	**50-75%**	**75-100%**
For the following studies listed below:				
A. Explain the indications and limitations and be aware of age-appropriate normals.		1	2	3
B. Recognize cost utilization issues.		1,2	3	
C. Independently interpret the results in the context of the care of the specific patient.	1		2	3

Laboratory Studies (ED):				
1. CBC with differential count, platelets, indices.		1	2	3
2. Bacterial, viral, and fungal cultures and rapid screens.			1,2	3
3. Serologic tests for infection (e.g., monospot, VDRL, hepatitis).		1	2	3
4. Blood chemistries: electrolytes, calcium, magnesium, glucose.			1,2	3
5. Arterial, venous, and capillary blood gases.		1	2	3
6. Renal function tests.			1,2	3
7. Tests of hepatic function and damage.		1	2	3
8. Drug levels and toxic screens.		1,2		3
9. Gram stain, wet mount.		1	2	3
10. Urinalysis.			1,2	3
11. CSF studies.			1,2	3
12. Stool studies.			1,2	3
13. Coagulation studies.		1	2	3
14. Pregnancy test (urine, blood).				1,2,3
Imaging/Radiologic Studies (ED):				
15. Plain radiographs of chest, skull, extremity bones, abdomen.		1	2	3
16. Appropriate choice of more sophisticated, expensive or potentially harmful imaging techniques (CT, MRI, ultrasound, nuclear scans).		1	2	3
Other Screening and Diagnostic Studies (ED)				
17. Electrocardiogram		1	2	3
18. Vision screening				1,2,3

GOAL 4: Monitoring and Therapeutic Modalities (ED): Understand the application of physiologic monitoring and special technology and treatment in the ED setting.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
For the monitoring techniques and special treatments in the list below:				
A. Discuss indications, contraindications, and complications.				
B. Demonstrate proper use of technique or treatment for children of varying ages (items marked with * do not require proficiency).				
C. Interpret results of monitoring based on method used, age, and clinical situation.				
Monitoring Techniques (ED):				
1. Physiologic monitoring of temperature, blood pressure, heart rate, respirations.			1	2,3
2. Pulse oximetry.			1	2,3
3. Capnometry/end tidal CO_2 (*)		1	2	3
Treatments and Techniques (ED):				
4. Universal precautions.				1,2,3
5. Gastrointestinal decontamination for poisoning.		1	2	3
6. Administration of nebulized medication.			1,2	3
7. Injury, wound, and burn care, including suturing and splinting.		1	2	3
8. Casting (*).		1	2	3
9. Oxygen delivering systems.		1	2	3
Anesthesia/Pain Management (ED):				
10. Methods for recognizing and evaluating pain.		1	2	3
11. Topical/local/regional anesthesia.		1	2	3
12. "Conscious" sedation (*).		1	2	3
13. Rapid sequence intubation (*).	1	2		3
14. Sedatives and narcotics.	1	2		3
15. Behavioral techniques and supportive care.	1		2	3

GOAL 5: Management and Decision-Making (ED): Develop a logical and efficient approach to the care of emergency patients, applying principles of decision-making and problem solving.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Demonstrate ability to prioritize care needs.				

a. Provide care to multiple patients, with varying levels of acuity and severity of illness.	1		2	3
b. Use appropriate timing of diagnostic/therapeutic interventions.	1		2	3
c. Adjust pace to ED patient acuity, volume, flow.	1		2	3
2. Understand the limits of one's own knowledge, skills, and tolerance for stress; ask for help appropriately.	1		2	3
3. Apply principles of decision-making and problem solving appropriate to the emergency/urgent care setting, using available resources.	1		2	3
4. Consistently act responsibly and adhere to professional standards for ethical and legal behavior.			1	2,3
5. Be aware of quality control/quality improvement processes in the ED and when appropriate use the results to improve patient management.	1		2	3

GOAL 6: Teamwork and Consultation (ED): Understand how to function as part of an interdisciplinary team in the ED.

COMPETENCIES: (PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Participate effectively in the patient care team (nurses, clerical staff, financial workers, attending physicians, trauma team/surgeons, residents, respiratory therapists, social workers, etc):				
a. Explain the skills and limitations each team member brings to the team care process in the ED.	1		2,3	
b. Work effectively with these various team members.			1	2,3
c. Demonstrate good communication skills, and appreciation and respect for the contribution of each team member to the care of ED patients.			1	2,3
d. Serve as a team member and leader in urgent situations.		1	2	3
2. Use consultants appropriately and communicate effectively with them.		1		2,3

GOAL 7: Patient Support and Advocacy (ED): Understand how to provide sensitive support acutely to patients and families of children and adolescents with acute illness and injury, and arrange for on-going support and/or preventive services if needed.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Listen to concerns of patients and families; assign a team member to provide information and support in emergencies.	1		2	3
2. Deal with families of injured or seriously ill patients in a non-judgmental, culturally-sensitive manner which conveys a warm, caring attitude.		1		2,3
3. Identify problems and risk factors in the child and family, even outside the scope of this visit, and appropriately intervene or refer (e.g., need for preventive or social services, care for unrelated problems).	1		2	3
4. Be able to deal with the "difficult" parent and child.	1		2	3
5. Demonstrate sensitivity and skills in dealing with death and dying in the ED.		1	2	3
6. Explain and be sensitive to the role of the primary care physician in providing on-going support and continuing care; effectively communicate with both referring physicians and the child's regular doctor.		1		2,3
7. Enlist the parents' aid in the care of the child after discharge; teach them skills they will need.		1		2,3
8. Describe problems of indigent families seeking acute care including:				
a. Lack of true "medical home" for primary and continuity care.		1	2	3
b. Barriers affecting compliance with instructions (e.g., financial, education/understanding, language, transportation, child care).		1	2	3
9. Identify strategies that might prevent or reduce morbidity for common problems presenting to the ED in one's community.	1	2		3

GOAL 8: Financial Issues and Cost Control (ED): Understand key aspects of cost control, billing, and reimbursement in the ED setting.

COMPETENCIES: (PBLI, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. For diagnostic and therapeutic interventions in the ED, identify the general cost range, and utilize these interventions appropriately, with appreciation for how the expense impacts on the medical outcome, family, the service unit, and managed care providers.	1	2	3	

2. Select prescription medications with sensitivity to cost issues.	1		2	3
3. Practice appropriate utilization of consultants.		1	2	3
4. Participate in billing/managed care routines required of providers in the ED facility, showing attention to detail, accuracy, and appropriate documentation.	1	2		3
5. Describe general principles about typical insurance coverage for emergency care (e.g., types of services covered; required notification of managed care provider); discuss how coverage may differ for ED versus urgent care centers/sites.	1,2		3	
6. Be sensitive to the financial status of patients; be willing to refer to appropriate agencies if assistance is needed.	1		2	3
7. Discuss legal and ethical obligations to patients seen in the ED which impact on service, and thus cost of care.		1	2	3
8. Discuss cost implications of admission, extended observation in the ED, and admission to observation bed status.	1	2	3	

GOAL 9: Medical Records (ED): Understand how to maintain accurate, timely, and legally appropriate medical records in the ED and urgent care settings.

COMPETENCIES: (PC, MK, PBLI, IC, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Consistently maintain accurate, timely, and legally appropriate medical records, including:				
a. History & physical examination appropriate for the condition.			1	2,3
b. Problem list/working and final diagnoses.		1		2,3
c. Initial plan.		1		2,3
d. Detailed procedure notes for procedures done in the ED.		1		2,3
e. Accurate, timed record of all medications and fluids given.		1		2,3
f. Results of any diagnostic studies available at the time of discharge/transfer.		1		2,3
g. Condition on discharge or transfer from the ED.		1		2,3
h. Discharge instructions, with evidence of written instructions to the caretaker, in a form understandable to them.		1		2,3
2. Communicate effectively in writing and by phone with referring and primary physician as indicated.			1	2,3

GOAL 10: Resuscitation and Stabilization (ED) Understand how to rapidly assess, resuscitate, and stabilize a critically ill or injured child in the Emergency Department (ED) setting.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Rapidly assess urgent patients:				
a. Recognize respiratory failure and/or shock.	1		2	3
b. Formulate a diagnosis quickly, especially with respect to conditions which may need respiratory or cardiovascular support or an immediate intervention (e.g., tension pneumothorax, emergent cerebral edema, cardiac tamponade).	1		2	3
c. Assist in evaluating and stabilizing a child with multiple trauma.	1		2,3	
2. Identify priorities for vascular access, establish access, and perform fluid resuscitation.				
Demonstrate exposure to:				
a. Cannulation of peripheral veins.	1,2		3	
b. Intraosseous needle insertion.	1,2		3	
Explain indications and describe technique for:				
a. Central venous access.	1	2	3	
b. Arterial access.	1	2		3
3. Demonstrate proficiency at cardiopulmonary resuscitation:				
a. Obtain certification as a provider of Pediatric Advanced Life Support.				1,2,3
b. Direct resuscitation efforts in mock codes and in actual emergency situations.		1		2,3
c. Understand the pharmacology of the drugs used in resuscitation.			1	2,3

Overall Competencies for the Pediatric Residency Training Program

ENDOCRINOLOGY

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Normal Versus Abnormal (Endocrine): Understand how to differentiate between normal and pathological states related to endocrinology

COMPETENCIES: (MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Describe normal patterns of linear growth and weight gain, applying this to evaluation of variations in growth patterns.			1	2,3
2. Describe physiologic events in puberty and Tanner staging, and differentiate normal from early and delayed puberty.		1	2	3
3. Differentiate premature thelarche and adrenarche from true precocious puberty.		1	2	3

GOAL 2: Common Conditions Not Referred (Endocrine): Understand how to diagnose and manage endocrine conditions generally not requiring referral.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Describe the pathophysiology of, recognize, and manage these conditions:				
1. Abnormal newborn thyroid screen (initial evaluation)			1	2,3
2. Benign premature adrenarche.		1	2	3
3. Benign premature thelarche.		1	2	3
4. Delayed puberty due to chronic disease or anorexia nervosa.			1	2,3
5. Exogenous obesity.			1	2,3
6. Familial short stature, constitutional delay of growth or puberty.			1	2,3
7. Gynecomastia in a pubertal male.			1	2,3
8. Infant of mother with gestational diabetes.			1	2,3
9. Transient hypocalcemia in a newborn.			1	2,3
10. Transient hypoglycemia in a newborn.			1	2,3

GOAL 3: Conditions Generally Referred (Endocrine): Understand how to recognize, initiate management of, and refer endocrine conditions which require referral.

COMPETENCIES: (PC, MK, IC, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Identify, provide initial management of, and refer appropriately these conditions:				
1. Adrenal insufficiency.		**1**	**2**	**3**
2. Ambiguous genitalia, hypogonadism, and micropenis.		**1**	**2**	**3**
3. Central and nephrogenic diabetes insipidus and psychogenic polydipsia.		**1**	**2**	**3**
4. Congenital adrenal hyperplasia.			**1**	**2,3**
5. Delayed or precocious puberty.		**1**	**2**	**3**
6. Diabetes mellitus (diabetic ketoacidosis (DKA), long-term management).			**1**	**2,3**
7. Endocrine and genetic causes of obesity.		**1**	**2**	**3**
8. Genetic syndromes and familial inheritance patterns with endocrine abnormalities.		**1**	**2,3**	
9. Hirsutism.		**1**	**2**	**3**
10. Hypoglycemia in childhood and adolescence.			**1**	**2,3**
11. Polycystic ovaries and hyperandrogenism in girls.		**1**	**2**	**3**
12. Short stature variants, with selection of possible hormonal treatment.		**1**	**2**	**3**
13. Tall stature and excessive growth syndromes.		**1**	**2**	**3**
14. Thyroid dysfunction and goiters.			**1**	**2,3**
15. Turner syndrome.		**1**	**2**	**3**
16. Undescended testes.			**1**	**2,3**
17. Zinc deficiency.		**1**	**2**	**3**

GOAL 4: Diabetes Mellitus: Understand the diagnosis and management of diabetes mellitus.

COMPETENCIES: (PC, MK, PBLI, IC, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Recognize the initial presentation, preform confirmatory lab tests, treat immediate life threatening complications, and refer for education.			1	2,3
2. Order and accurately interpret laboratory tests for screening, confirmation of diagnosis, routine monitoring (glucose and Hemoglobin A1C), and identification of complications.			1	2,3
3. Recognize and treat DKA using appropriate IV and PO fluids, insulin, and laboratory parameters.			1	2,3
4. Demonstrate understanding of the correct use of home glucose monitoring and adjustment of insulin dosages.			1	2,3
5. Describe the use of insulin including initial dosages, adjustment of dosages based on serum glucose records or illness, different preparations, and pharmacokinetics.		1	2	3
6. Describe the principles behind preventative, anticipatory care for children with diabetes and their families; be aware of community resources available to the family and diabetic team (camps, American Diabetes Association materials, etc); be aware of future trends for primary prevention of childhood diabetes.		1	2	3
7. Monitor patients routinely and review implications of diabetes associated complications (retinopathy, nephropathy, neuropathy).		1	2	3
8. Identify the specialist's role in long-term management.			1	2,3
9. Counsel patients on the role of diet and exercise.			1	2,3

GOAL 5: Prevention (Endocrine): Understand the pediatrician's role in preventing morbidity related to endocrine dysfunction in children.

COMPETENCIES: (PC, MK, PBLI, IC)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Counsel parents and children about changes expected in puberty and normal variations.			1	2,3
2. Recognize need for influenza vaccination in children with certain endocrine disorders (hypoadrenalism, diabetes mellitus, hypopituitary, and Cushings Syndrome).		1	2	3
3. Counsel asthmatics on steroids about risks.			1	2,3
4. Discuss Vitamin D supplements in breast fed infants and select populations with low vitamin D, calcium, or phosphorus intake.			1	2,3

MCGAW MEDICAL CENTER of NORTHWESTERN UNIVERSITY

Ann & Robert H. Lurie Children's Hospital of Chicago

Overall Competencies for the Pediatric Residency Training Program

GASTROENTEROLOGY

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Normal Versus Abnormal (Gastroenterology): Understand how to differentiate between normal and pathological states related to gastroenterology.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Demonstrate an understanding of normal feeding patterns from birth through adolescence for eating, weight gain, reflux, spitting, diarrhea and constipation, and recognize significant variations that warrant evaluation.			1	2,3
2. Differentiate clinical patterns of functional abdominal pain and pathologic pain.		1	2	3
3. Recognize transient liver abnormalities from significant ones.		1	2	3

GOAL 2: Common Conditions Not Referred (Gastroenterology): Understand the management of gastrointestinal conditions generally not requiring referral.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Recognize, describe the pathophysiology of, and manage these conditions.				
1. Bacterial enteritis.			1	2,3
2. Chronic nonspecific diarrhea.		1	2	3
3. Common nutritional deficiencies.			1	2,3
4. Constipation, encopresis.		1	2	3
5. Exogenous obesity.			1	2,3
6. Gastroesophageal reflux.				1,2,3
7. Giardiasis.		1	2	3
8. Irritable bowel syndrome.		1	2	3
9. Jaundice associated with breast feeding.			1	2,3
10. Lactose intolerance.			1	2,3
11. Mallory-Weiss esophageal tear.		1	2	3
12. Milk protein intolerance.			1	2,3
13. Recurrent abdominal pain of childhood.		1	2	3
14. Viral gastroenteritis.				1,2,3
15. Viral hepatitis, uncomplicated			1	2,3
Develop a step-wise approach to diagnosis, including appropriate history, physical exam, and laboratory studies; treat common conditions as listed above; and refer appropriately the following complaints related to the gastrointestinal system:				
1. Abdominal pain.		1	2	3
2. Abdominal mass.		1	2	3
3. Abnormal liver exam, liver function tests or jaundice.		1	2	3
4. Failure to thrive.		1	2	3
5. Hematochezia.		1	2	3
6. Malabsorption.		1	2	3
7. Vomiting and diarrhea.			1	2,3

GOAL 3: Conditions Generally Referred (Gastroenterology): Understand how to recognize and initiate management of gastrointestinal conditions which generally require referral.

COMPETENCIES: (PC, MK, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Identify, provide initial management of, and refer appropriately these conditions:				
1. Conditions warranting urgent surgical or gastroenterology referral (appendicitis, bowel obstruction, volvulus, intussusception, pyloric stenosis, coin ingestions lodged in esophagus, caustic ingestions, biliary atresia/stones or congenital GI bleeding, blunt abdominal trauma).		1	2	3
2. Hepatobiliary diseases (hepatitis which is either neonatal, chronic, or persistent; undiagnosed hyperbilirubinemia; alpha 1 antitrypsin; pancreatitis;		1	2	3

hepatosplenomegaly).				
3. Intestinal mucosal conditions (inflammatory bowel disease, colitis, significant gastrointestinal bleeding).		1	2	3
4. Nutritional deficiencies which are severe or uncommon (rickets, kwashiorkor, marasmus).		1	2	3
5. Malabsorption entities (celiac disease, cystic fibrosis, following serious GI infection, undiagnosed).		1	2	3
6. Others such as morbid obesity, anorexia nervosa, bulimia, severe failure to thrive.		1	2	3

GOAL 4: Vomiting: Understand the diagnosis and management of vomiting.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Distinguish normal spitting up and functional gastroesophageal reflux from more serious vomiting disorders.			1	2,3
2. Identify the common and serious disorders leading to vomiting (both intestinal and extraintestinal) and the appropriate use of laboratory and imaging studies to clarify the diagnosis.		1	2	3
3. Identify and refer children with intestinal obstruction leading to vomiting.		1	2	3
4. Differentiate typical viral gastroenteritis from other causes of vomiting.			1	2,3
5. Recognize signs and symptoms of dehydration, calculate deficits, and maintenance requirements and demonstrate knowledge regarding appropriate treatment with IV fluids versus oral rehydration solutions.			1	2,3

GOAL 5: Abdominal Pain: Understand the diagnosis and management of abdominal pain.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Identify the common causes of abdominal pain and differentiate recurrent abdominal pain of childhood and irritable bowel syndrome from other organic causes.		1	2	3
2. Demonstrate the ability to take a complete history related to abdominal pain including diet history, bowel patterns, and psychosocial history.			1	2,3
3. Describe a step-wise approach to the work up of a patient with abdominal pain.			1	2,3

GOAL 6: Diarrhea: Understand the diagnosis and management of diarrhea.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Define infectious and non-infectious causes of diarrhea.			1	2,3
2. Describe the appropriate diagnostic work up for the patient with acute, subacute, or chronic diarrhea.		1	2	3
3. Describe appropriate dietary therapy for the patient with diarrhea based on etiology including the role and use of oral rehydration solutions.			1	2,3
4. Describe an appropriate diagnostic work up for the patient with poor growth and suspected malabsorption.		1	2	3

GOAL 7: Nutrition (Gastroenterology): Understand principles of nutrition important to the general pediatrician.

COMPETENCIES: (PC, MK)	<25%	25-50%	50-75%	75-100%
1. Collect an age-appropriate nutritional history and perform an age-appropriate exam for nutritional disorders.			1	2,3
2. Identify the major components (e.g., carbohydrate, protein, fat sources), the differences of and the indications for using the following milk types: human breast milk, cow's based infant formula, soy formula, specialized formulas, and whole milk.		1	2	3
3. For the following list of nutritional components, describe children at risk for deficiencies, list common signs and symptoms of deficiency, and identify dietary requirements and sources for and discuss the pediatrician's role in the management of routine cases of deficiencies:				
a. B 12		1	2	3
b. Calcium		1	2	3
c. Calorie		1	2	3
d. Fluoride		1	2	3
e. Folate		1	2	3
f. Iron		1	2	3
g. Protein		1	2	3
h. Vitamins A, D, E, K		1	2	3

4. Explain the concepts of recommended daily allowance (RDA) especially related to food labeling, food pyramid, basal metabolic rate (BMR), stressors and food digestion, and describe changes needed in children who have serious or chronic illness or who are in the perioperative period.		1	2	3
5. Manage exogenous obesity utilizing dietary consultation appropriately.		1	2	3

GOAL 8: Prevention (Gastroenterology): Understand the pediatrician's role in the prevention of gastrointestinal disorders.

COMPETENCIES: (PC, MK, PBLI, IC, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Counsel patients effectively in the following nutritional areas:				
a. Age appropriate diet.			1	2,3
b. Eating habits.			1	2,3
c. Food safety (choking, food preparation, & storage).			1	2,3
d. Prevention of dietary deficiencies or excesses.			1	2,3
e. Prudent diet to reduce cardiovascular or cancer risk in adulthood.			1	2,3
2. Counsel parents about bowel training and dietary prevention of constipation.			1	2,3
3. Demonstrate knowledge about the rationale and recommended immunizations pre and post exposure to prevent Hepatitis A and B.			1	2,3
4. Discuss infection control practices for the prevention of gastrointestinal infections in the day care setting.		1	2	3

GOAL 9: Liver Disease: Understand differential and diagnostic approach to hepatitis, direct hyperbilirubinemia, and liver failure.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Recognize the differential diagnosis and treatment approach to:				
1. Hepatitis A, B, C		1	2	3
2. Cholestatic disorders.		1	2	3
3. Chronic acute hepatitis.		1	2	3
4. Indications for liver transplant.		1	2	3
5. Interpretation of liver enzymes.		1	2	3

Overall Competencies for the Pediatric Residency Training Program

GENERAL ACADEMIC PEDIATRICS (PL-3 Elective)

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Understanding of the intricacies of consultative pediatrics as it relates to general pediatrics.

COMPETENCIES:	<25%	25-50%	50-75%	75-100%
1. **Diagnostic and Consultation Service**				
a. Develop an understanding of the diagnosis and management of functional complaints in pediatrics.				3
b. Improve communication skills as they relate to the management of complex medical problems involving multiple subspecialty physicians.				3
2. **Neurofibromatosis Clinic**				
a. Develop an understanding of the diagnosis and management of NF-1 and NF-2.				3
3. **Lead Clinic**				
a. Develop an understanding of the diagnosis and management of lead poisoning.				3
4. **Nutrition Evaluation Clinic**				
a. Develop an understanding of the management of obesity in young children.				3
b. Develop an understanding of the diagnosis and management of undernutrition in medically complex children.				3

GOAL 2: The development and honing of critical reading skills through a series of readings and weekly journal clubs.

COMPETENCIES:	<25%	25-50%	50-75%	75-100%
Demonstrate ability to critically read the medical literature and lead journal club setting.				3

MCGAW MEDICAL CENTER of NORTHWESTERN UNIVERSITY   Ann & Robert H. Lurie Children's Hospital of Chicago

Overall Competencies for the Pediatric Residency Training Program

GENERAL PEDIATRIC MEDICINE: Inpatient

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Continuum of Care (Inpatient). Understand the continuum of care for children with acute illness/injury, from initial presentation (office, clinic, ED), through acute hospital care (including transfer in and out of PICU), to discharge planning, home health services, and office follow-up care.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	<25%	25-50%	50-75%	75-100%
For a representative sample of children and families, provide/ participate in care across the full continuum of services, including:				
1. Presentation of acute illness by phone, clinic/office, ED		1	2	3
2. Decision to admit to the hospital		1	2	3
3. Inpatient acute care		1	2	3
4. Decision to transfer to and out of the PICU		1	2	3
5. Discharge planning to facilitate transition to home care		1	2	3
6. Post hospital care (coordinating home health services, providing office/clinic follow-up care)		1	2	3
Discuss for a given family and child the impact of each phase of care on final health care outcome, psychosocial impact of illness on child and family, and financial burden to family and health care system		1		2, 3

GOAL 2: Common Signs and Symptoms (Inpatient). Understand how to assess and manage common signs and symptoms associated with acute illness and hospitalization.

COMPETENCIES: (PC, MK)	<25%	25-50%	50-75%	75-100%
For each of the signs and symptoms in the list below:				
a. Perform a directed history and physical examination. b. Format a differential diagnosis with age appropriate considerations. c. Discuss indications for hospitalization. d. Formulate a plan for inpatient diagnosis and management.				
Signs and symptoms (Inpatient)				
1. **General:** Failure to thrive, weight loss, fever without localizing signs, constitutional symptoms, multiple fractures		1	2	2
2. **Cardiovascular:** Hypertension, rhythm disturbance, heart murmur		1	2	3
3. **Dermatologic:** Rashes, petechiae, purpura, ecchymoses, urticaria, edema		1	2	3
4. **EENT:** Trauma, conjunctival injection, acute visual changes, edema, epistaxis		1	2	3
5. **Endocrine:** Polydipsia, polyuria		1	2	3
6. **GI/Nutrition/Fluids:** Diarrhea, vomiting, dehydration, inadequate intake, dysphagia, regurgitation, abdominal pain, abdominal masses, hematemesis, rectal bleeding, jaundice, ascites		1	2	3
7. **GU/Renal:** Hematuria, edema, decreased urine output, scrotal masses, dysuria		1	2	3
8. **GYN:** genital trauma		1	2	3
9. **Hematologic/Oncology:** Pallor, abnormal bleeding; lymphadenopathy, hepatosplenomegaly, masses		1	2	3
10. **Musculoskeletal:** Bone and soft tissue trauma, limp, arthritis/arthralgia, limb pain		1	2	3
11. **Neurologic:** Seizure, headache, delirium, lethargy, weakness, ataxia, coma, head trauma, vertigo, irritability		1	2	3
12. **Psychiatric/Psychosocial:** Acute. psychosis, suicide attempt, depression, conversion symptoms, child abuse or neglect		1	2	3
13. **Respiratory:** Increased work of breathing, cyanosis, apnea, dyspnea, tachypnea, wheezing, stridor, inadequate respiratory effort, cough, hemoptysis, chest pain, respiratory failure		1	2	3

GOAL 3: Common Conditions (Inpatient). Understand how to assess and manage common childhood conditions cared for in the inpatient setting.

COMPETENCIES: (PC, MK, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
For each of the signs and symptoms in the list below:				
a. Describe criteria for admission to inpatient service and transfer to PICU. b. Formulate a plan for the inpatient diagnosis and treatment. c. Describe criteria for discharge and principles of discharge planning.				
List of Common Conditions (Inpatient)				
1. **General:** Failure to thrive, fever of unknown origin, child abuse and neglect		1	2	3
2. **Allergy/Immunology: A**cute and significant drug allergies/ reactions		1	2	3
3. **Endocrine**: Diabetes, including DKA		1	2	3
4. **GI/Nutritional/Fluids:** Gastroenteritis, including with dehydration, electrolyte abnormalities, and/or acidosis; gastroesophageal reflux; rickets; protein-calorie malnutrition		1	2	3
5. **GU/Renal:** UTI/pyelonephritis		1	2	3
6. **Hematology/Oncology:** Anemia, thrombocytopenia		1	2	3
7. **Infectious Disease:** Cellulitis, periorbital and orbital cellulitis, cervical adenitis, pneumonia (viral or bacterial), laryngotracheobronchitis, meningitis (bacterial or viral), sepsis/bacteremia (including newborns), osteomyelitis, pelvic inflammatory disease, septic arthritis, shunt or line infection, infections in AIDS patients; fever in a neonate		1	2	3
8. **Pharmacology/Toxicology:** Common drug poisoning or overdose		1	2	3
9. **Neurology:** Severely handicapped children with acute medical conditions, developmental delay		1	2	3
10. **Respiratory:** Apnea, airway obstruction, pneumonia		1	2	3

GOAL 4: Diagnostic Testing (Inpatient). Understand the indications, limitations, and interpretation of common laboratory tests and imaging studies utilized in inpatient care.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
For each of the tests in the lists below:				
a. Explain the indications and limitations of each test and be aware of the age appropriate normals. b. Interpret abnormalities in the context of specific physiologic derangements. c. Discuss therapeutic options for correction of abnormalities when appropriate.				
Growth Charts:				
1. Construction of accurate growth charts		1		2, 3
2. Interpretation of nutritional status		1		2, 3
Laboratory Tests (Inpatient)				
1. CBC with differential, platelet count, indices		1		2, 3
2. Blood chemistries: electrolytes, glucose, calcium, magnesium		1		2, 3
3. Renal function tests		1		2, 3
4. Tests of hepatic function and damage		1		2, 3
5. Serologic tests for infection (e.g., hepatitis, HIV)		1		2, 3
6. CRP, ESR		1		2, 3
7. Drug levels		1		2, 3
8. Coagulation studies		1		2, 3
9. Arterial, capillary, and venous blood gases		1		2, 3
10. Cultures for bacterial, viral, and fungal pathogens		1		2, 3
11. Urinalysis		1		2, 3
12. CSF analysis		1		2, 3
13. Gram stain		1		2, 3
14. Stool studies		1		2, 3
Imaging Studies (Inpatient)				
1. Chest x-ray		1		2, 3
2. Abdominal films		1		2, 3
3. Lateral neck x-rays		1		2, 3
4. Computed tomography of chest, abdomen, bones, head		1		2, 3
5. Ultrasound of chest, abdomen		1		2, 3
6. MRI of chest, abdomen, bones, head		1		2, 3

GOAL 5: Monitoring and Therapeutic Modalities (Inpatient). Understand the application of physiologic monitoring and special technology and treatment in the general inpatient setting,

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. For the following types of monitoring, list techniques appropriate for age and clinical setting, describe indications and limitations, and interpret the results/measurement:				
a. Body temperature monitoring		1		2, 3
b. Cardiac monitoring		1		2, 3
c. Respiratory monitoring		1		2, 3
d. Pulse oximetry		1		2, 3
e. Blood pressure monitoring		1		2, 3
2. Participate in the daily care of "technology dependent" children and those who require parenteral hyperalimentation and enteral tube feedings; describe key issues for on-going management both in the hospital and at home.		1		2, 3
3. Demonstrate the skills for assessing and managing pain.		1		2, 3

GOAL 6: Management and Decision-Making (Inpatient). Develop a logical and appropriate clinical approach to the care of hospitalized children, applying principles of decision-making and problem solving.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Apply principles of decision-making and problem solving in the care of hospitalized children.		1	2	3
2. Recognize the limits of one's own knowledge, skills, and tolerance for stress; ask for help as needed.		1		2, 3
3. Consistently act responsibly and adhere to professional standards for ethical and legal behavior.		1		2, 3
4. Seek information needed for patient care decisions and apply this knowledge appropriately.		1		2, 3
5. Develop and maintain comprehensive problem list with accurate prioritization.		1		2, 3
6. Be aware of quality control/quality improvement processes and when appropriate use the results to improve patient management.		1	2	3

GOAL 7: Teamwork and Consultation (Inpatient). Understand how to function as part of an interdisciplinary team on a general pediatric ward, as primary provider and as the consulting pediatrician.

COMPETENCIES: (PC, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Communicate well and work effectively with fellow residents, attendings, consultants, nurses, ancillary staff, and referring physicians.			1	2, 3
2. Demonstrate skills as a team participant and as a team manager.		1		2, 3
3. Work with the primary care provider to assure continuity of care; communicate with the primary care giver in an effective and timely manner.		1		2, 3
4. As the primary provider (e.g., for one's continuity patients) relate to the inpatient team and patient in a manner that results in continuity of management, family support, and appropriate discharge planning.		1	2	2, 3
5. Perform in the capacity of pediatric consultant for hospitalized patients managed by other providers (family physicians, surgeons, etc.). (PL-3 only)				3
6. Describe the role of managed care case managers; work with these individuals to optimize health outcome.		1	2	2, 3

GOAL 8: Patient Support and Advocacy (Inpatient). Understand how to provide sensitive support acutely to patients and families of children with acute illness, and arrange for on-going support and/or preventive services at discharge.

COMPETENCIES: PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Demonstrate awareness of the unique problems involved in the care of children with multiple problems or chronic illness, and serve effectively as an advocate and case manager for such patients.		1	2	3
2. Demonstrate sensitivity and skills in dealing with death and dying in the hospital setting.		1	2	3
3. Consistently listen carefully to the concerns of patients and families, and provide appropriate information and support.		1		2, 3
4. Identify and attend to issues such as growth and nutrition, developmental stimulation, and schooling during extended hospitalizations.		1	2	3

5. Identify problems and risk factors in the child and the family, even outside the scope of this admission (e.g., immunizations, social risks, developmental delay); appropriately intervene or refer.		1	2	3
6. Demonstrate sensitivity to family, cultural, ethnic, and community issues when assessing patients and making health care plans.		1		2, 3
7. Facilitate the transition to home care by appropriate discharge planning and parental/child education.		1	2	3

GOAL 9: Financial Issues and Cost Control (Inpatient). Understand key aspects of cost control, billing, and reimbursement in the hospital inpatient setting.

COMPETENCIES: (PBLI, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Demonstrate familiarity with the common mechanisms of inpatient cost control in managed care setting, including pre-authorization, concurrent review, and discharge planning.		1	2	3
2. Practice appropriate utilization of consultants and other resources.		1	2	3
3. Show concern for financial circumstances of the patient and refer for social service support as needed.		1	2	3

GOAL 10: Medical Records (Inpatient). Understand how to maintain accurate, timely, and legally appropriate medical records in the hospital inpatient setting.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Maintain daily notes which clearly document the patient's progress, relevant investigations, and plan.		1		2, 3
2. Appropriately select those cases when more frequent documentation is required.		1		2, 3
3. Prepare appropriate discharge summaries and off-service notes, including written communication with the primary care provider.		1		2, 3
4. Participate in chart audits as part of a quality assurance process: describe how this process can improve charting and patient care.		1		2, 3

Overall Competencies for the Pediatric Residency Training Program

GENERAL PEDIATRIC MEDICINE: Outpatient

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Core Concepts About Health Supervision: Understand basic concepts about the process of providing health supervision care at office visits; demonstrate this understanding during actual visits with patients receiving continuing care.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Demonstrate understanding of common behavioral and developmental pediatric problems encountered in the office.			1	2,3
2. Demonstrate familiarity with unique aspects of physician/ patient/parent relationships as they exist for the general pediatrician.			1	2,3
3. Develop an appreciation for a wide variety of pediatric care offered at different hospitals/institutions.		1	2	3
4. Demonstrate knowledge of the general pediatrician's referral base and what patient problems require referral.		1	2	3
5. Develop an awareness of and an ability to utilize community resources to better help your patient.		1	2	3
6. Develop patience and determination to get patients what they need. Begin to develop your role as a child advocate.			1	2,3
7. Appreciation for the complexity of funding systems and how confusing and difficult it can be for families.		1	2	3
8. Acceptance and respect of cultural beliefs and their effect on health, illness, and health care delivery.		1	2	3

GOAL 2: Office-Based Practice: Understand the basic concepts about office-based practice including strategies necessary to provide optimal patient care.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Demonstrate familiarity with the dynamics involved in operating a general practice; i.e. management of office space and patient scheduling.		1	2	3
2. Demonstrate understanding for financial/business aspects of a general pediatric practice.		1	2	3
3. Obtain a history, perform a physical exam, and develop a treatment plan for patients within an office setting.				1,2,3
4. Participate in testing and/or immunizations conducted in the office.				1,2,3
5. Participate in interpreting patient problems and instructing parents over the telephone.			1	2,3
6. Develop an awareness of the office pediatrician's role as an advocate for children.			1	2,3

McGAW MEDICAL CENTER of NORTHWESTERN UNIVERSITY

Ann & Robert H. Lurie Children's Hospital of Chicago

Overall Competencies for the Pediatric Residency Training Program

GENETICS

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: **Normal Versus Abnormal (Genetics**). Understand how to differentiate disorders associated with genetic predisposition or genetic disease from normal states or acquired disorders.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Identify key concepts related to gene structure, molecular genetic techniques, mutations, and common patterns of inheritance (autosomal dominant and recessive, x-linked recessive, multifactorial, and related to maternal age).		1	2	3
2. Describe common methods or genetic diagnosis, including genetic screening tests available, and identify resources for up-to-date information on this topic.		1	2	3
3. Explain the concept of malformation etiologies: chromosomal, multifactorial, teratogenic, due to intrauterine factors.		1	2	3
4. Perform a thorough physical examination with emphasis on identifying major and minor congenital anomalies which may be signs of underlying genetic syndromes.	1	2		3
5. Explain indications for testing in the primary care setting for genetic or metabolic disorders (e.g., for findings such as short stature, developmental delay, minor congenital anomalies, failure to thrive, seizures, family history suggestive of certain inherited conditions).		1	2	3
6. Collect an appropriate family history for genetic disorders and identify risks when present, and triage families appropriately for genetic counseling.		1	2	3
7. Discuss key concepts related to testing for carrier states and genes predisposing to cancer and adult onset disorders (e.g., Alzheimers).		1	2	3

GOAL 2: Conditions Requiring Urgent Referral. Understand how to recognize and respond to urgent and/or severe conditions related to genetics and inherited metabolic disorders.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Recognize, provide initial evaluation and counseling for, and identify resources for emergency consultation regarding:				
1. Infants presenting with symptoms that indicate the possibility of a severe inborn error of metabolism (e.g., metabolic acidosis, hyperammonemia, unexplained seizures).		1	2	3
2. Chromosomal abnormalities that require prompt diagnosis in the perinatal period (e.g., Trisomy 13, 18, 21).			1	2,3
3. Understand critical illness or death suggestive of metabolic disorder, requiring collection of tissue samples before or at time of death.		1	2	3
4. Developmental delay with signs or symptoms suggesting an underlying metabolic or genetic disorder.		1	2	3

GOAL 3: Conditions Requiring Complex Case Management: Understand the pediatrician's role in the long-term management of children with complex or unusual genetic or metabolic disorders.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. For commonly encountered disorders (e.g., Trisomy 21, Turner's Syndrome, Fragile X, neurofibromatosis) list presenting signs and symptoms and identify principles of long-term management.		1	2	3
2. Provide primary care and participate as a team member in medical and educational planning for patients with genetic disorders.		1	2	3
3. Explain how to identify and use resources in one's community for diagnosis, genetic counseling, therapy, and psychosocial support of children with genetic defects and congenital anomalies.		1	2	3
4. Participate in the process of genetic counseling and then review the experience with an experienced genetic counselor.	1		2	3

GOAL 4: Prevention: Understand key concepts for prevention and early detection of genetic disorders.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. List the disorders screened for in one's state neonatal screening program, provide initial counseling, and explain management for an infant with a positive neonatal screening test for each disorder.			1	2,3
2. Discuss public health strategies to reduce risk for genetic disorders and congenital anomalies (e.g., early identification and screening programs to detect disease and carrier states, prenatal care, genetic counseling).		1	2	3
3. Demonstrate commitment to collect appropriate screening histories, participate in neonatal screening programs, provide initial counseling, and utilize resources for genetic counseling.		1	2	3

Overall Competencies for the Pediatric Residency Training Program

HEMATOLOGY & ONCOLOGY

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Normal Versus Abnormal (Hematology/Oncology): Understand how to determine the difference between normal and pathologic states related to the hematologic and lymphatic systems.

COMPETENCIES: (MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Identify the changes that occur over time in the hematologic indices in the normal child (e.g., hemoglobin, hematocrit, MCV, etc.).			1	2,3

GOAL 2: Common Conditions Not Referred (Hematology/Oncology): Understand how to diagnosis and manage hematological disorders, which generally do not need referral.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Recognize, evaluate, and manage without referral these conditions:				
a. Iron deficiency			1	2,3
b. Thalassemia trait			1	2,3
c. Transient erythroblastopenia of infancy or childhood			1	2,3
d. Minor, common reactions to blood transfusions			1	2,3
e. Sickle cell trait			1	2,3

GOAL 3: Conditions Generally Referred (Hematology/Oncology): Understand how to diagnose and initiate management of hematological/oncological disorders which generally need referral.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Recognize the differential diagnosis, provide initial evaluation and management, and provide appropriate referral of the child presenting with these conditions:				
a. Anemia (exclusive of common iron deficiency or transient erythroblastopenia)			1	2,3
b. Abnormal bruising or bleeding (inherited and acquired)			1	2,3
c. Major complications of inherited bleeding disorders.			1	2,3
d. Hemoglobinopathies (sickle cell and other sickling disorders), including severe pain crisis, fever, stroke, sequestration, aplastic crisis, and acute chest syndrome).			1	2,3
e. Urgent conditions in children under treatment for cancer, including fever while on chemotherapy, chicken pox exposure or illness, and bleeding.			1	2,3
f. Neutropenia			1	2,3
g. Thrombocytopenia			1	2,3
h. An abdominal mass			1	2,3
i. A mediastinal mass			1	2,3
j. Conditions that might predispose to malignancy (e.g., neurofibromatosis, Blooms' syndrome, retinoblastoma, and familial cancer).		1	2	3
2. Demonstrate a sensitivity and awareness of the psychosocial aspects of patients with severe illness.				1,2,3

GOAL 4: Common Malignancies (Hematology/Oncology): Understand the presentation, pathophysiology, and prognosis of important malignancies in children and adolescents.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Identify the presenting complaints, principles of current therapy, and prognosis for these conditions:				
a. Leukemia (ALL, AML)		1	2	3
b. Brain tumor		1	2	3

c. Hodgkin's and Non-Hodgkin's lymphoma		1	2	3
d. Neuroblastoma		1	2	3
e. Wilm's tumor		1	2	3
f. Soft tissue sarcomas		1	2	3
g. Bone tumors (Osteosarcoma and Ewing's sarcoma)		1	2	3
h. Retinoblastoma		1	2	3
i. Langerhans cell histiocytosis		1	2	3
2. For these common pediatric signs and symptoms, describe clinical findings that would warrant screening for malignancy:				
a. Adenopathy			1	2,3
b. Headache			1	2,3
c. Limb pain			1	2,3
d. Hepatomegaly and/or splenomegaly			1	2,3
e. Persistent fever and malaise			1	2,3
f. Seizures			1	2,3
g. Weight loss			1	2,3
3. Describe common acute side effects of commonly used chemotherapeutic drugs (e.g., cyclophosphamide, vincristine, doxorubicin, and methotrexate).		1	2	3
4. Describe common late complications of childhood cancer treatment that may present in childhood or adolescents (e.g., learning disabilities, endocrine suppression, and second cancers.)		1	2	3

GOAL 5: Iron Disorders (Hematology/Oncology): Understand the appropriate methods of diagnosis and management of a child with disorders relating to iron.

COMPETENCIES: (PC, MK, PBLI, IC, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Describe the normal requirements, absorption, and metabolism of iron from birth through adolescence.			1	2,3
2. Identify the features of iron deficiency including anemia.			1	2,3
3. Describe and use appropriate laboratory tests to screen for, treat, and follow the therapy of iron deficiency.			1	2,3
4. Manage iron deficiency appropriately (e.g., dietary management, replacement therapy, parent education, and follow-up).			1	2,3

GOAL 6: Blood Products (Hematology/Oncology): Understand indications and complications related to the use of blood products.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. List the appropriate indications and potential risks of various blood products (red blood cell products, platelet concentrates, coagulation factors).		1	2	3
2. Be aware of alternatives to blood transfusions, e.g., erythropoietin and other cytokines.		1	2	3
3. Discuss the reasons for leukofiltration and/or irradiation of blood products.		1	2	3
4. Demonstrate familiarity with central line maintenance, repair and complications.			1	2,3

GOAL 7: Preventive Care (Hematology/Oncology): Understand the pediatrician's role in the prevention of hematologic/oncologic disorders.

COMPETENCIES: (PC, MK, PBLI, IC)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Provide dietary counseling to parents about the prevention of iron deficiency.			1	2,3
2. Counsel patients who have a sickle hemoglobinopathy about the importance of antibiotic prophylaxis and urgency of evaluation for fever.			1	2,3

Overall Competencies for the Pediatric Residency Training Program

INFECTIOUS DISEASES

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Normal versus Abnormal (Infectious Disease). Understand how to differentiate between normal and abnormal pathologic states related to infectious disease.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Describe the normal temperature variability and its use in identifying infection, as well as methods employed, e.g., mercury thermometer and sites (oral, rectal).			1	2, 3
2. Describe other signs that often indicate infections (e.g., inflammation, skin changes, jaundice, rash, exudates, pain, breathing difficulties, behavior change, anorexia) and conditions under which these might be absent.			1	2, 3

GOAL 2: Common Symptom Complexes (Infectious Disease). Understand how to manage common symptoms /signs of infection.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Describe the evaluation, differential diagnosis, and management of these clinical situations:				
1. **General:** Fever in the neonate, in immunocompromised host, without localizing features or associated with rash/petechiae/purpura.			1, 2	3
2. **Respiratory:** Ear pain, sore throat, runny nose, cough, sinus pain, tooth pain, stridor.			1, 2	3
3. **Gastrointestinal:** Vomiting, diarrhea, abdominal pain.			1	2, 3
4. **Genitourinary:** Urinary pain or frequency, hematuria, penile or vaginal discharge.			1	2, 3
5. **Musculoskeletal:** Painful or swollen joints and bones, limp, puncture wounds, skin changes, pain, or erythema.			1	2, 3
6. **Lymphatic:** Adenopathy with or without fever or pain.			1, 2	3
7. **Ophthalmology:** Conjunctival drainage, orbital swelling or redness.			1	2, 3
8. **Oral:** tooth pain, facial swelling.			1	2, 3

GOAL 3: Common Conditions Not Referred (Infectious Disease). Understand how to diagnose and manage infectious disease conditions which do not require referral.

COMPETENCIES: (PC, MK)	<25%	25-50%	50-75%	75-100%
Recognize and manage these conditions:				
1. Systemic (Infectious Disease)				
a. **Viral exanthems:** Measles, varicella, herpes simplex, parvovirus, rubella.			1, 2, 3	
b. **Zoonoses/Arthropod Borne:** Rocky mountain spotted fever, cat scratch disease			1	2, 3
c. **Other:** Infectious mononucleosis syndrome (EB virus, CMV, taxoplasma, etc.), RSV, influenze, entrovirus, adenovirus, Kawasaki disease.		1	2	3
2. Organ System (Infectious Disease)				
a. **Upper respiratory:** Pharyngitis, otitis media and externa, sinusitis, facial cellulitis, mastoiditis.			1	2, 3
b. **Oral/Pharyngal:** Herpetic gingivostomatitis, herpangina, oral thrush, tonsillar-pharyngitis, glossitis enteroviral enanthems, Koplik's Spots.			1	2, 3
c. **Middle airway:** Croup syndrome.			1	2, 3
d. **Lower airway:** Pneumonia (including chlamydia, mycoplasma, bacteria, viral), bronchiolitis, follow-up of pulmonary tuberculosis, tracheitis (child with endotracheal tube).			1	2, 3
e. **GI tract:** Esophagitis, gastroentitis (bacteris, viral, and parasitic, giardia, antibiotic associated colitis), hepatitis.			1, 2	3
f. **Renal:** UTI (pyelonephritis, cystitis, urethritis)				1, 2, 3

g. **Genital:** Urethritis, vaginitis, epididymitis, orchitis, cervicitis, uncomplicated PID.			1, 2	3
h. **Musculoskeletal:** Osteomyelitis/arthritis.			1, 2	3
i. **CNS:** Aseptic and bacterial meningitis, post-viral encephalitis, cerebellar ataxia.			1, 2	3
j. **Skin:** Bacterial (impetigo, cellulites, furuncles, carbuncles); dermatophytes; cadida (oral and diaper); herpes simplex.				1, 2, 3
k. **Eyes:** Conjunctivitis, blepharitis, sty, preseptal cellulitis.			1, 2	3
l. **Parasites:** Pinworms, toxacara canis, ascariasis, neurocysticercosis.			1, 2	3
3. Age Group-Focused (Infectious Disease)				
a. **Intrauterine**: CMV, rubella, syphilis, parvovirus B19, varicella, HIV.			1, 2	3
b. **Perinatal**:				
1. **Viral**: varicella, enterovirus, HSV.			1, 2	3
2. **Bacterial**: sepsis, group B strep, focal infections, (scalp, mastitis, omphalitis).			1	2, 3
3. **Fungal**: candida.			1, 2	3
c. **Infancy/Toddler**: Potential occult bacteremia (2 months to 3 years).			1	2, 3
d. **Adolescent STDs**: Cervicitis, vaginitis, genital ulcer/adenopathy, urethritis, epididymitis/orchitis, cutaneous (syphilis, warts), PID, HIV, human papilloma virus.			1,2,3	

GOAL 4: Conditions Generally Referred (Infectious Disease). Understand how to recognize, manage, and refer infectious disease conditions which require consultation or referral.

COMPETENCIES: (PC, MK, IC, SBP)	<25%	25-50%	50-75%	75-100%
1. Recognize, provide initial management of, and refer appropriately uncommon or complicated conditions for the following Systemic infections such as:				
a. **Zoonoses/Arthropod Borne:** Brucella, leptospirosis, ehrlichia, tularemia, lyme, rocky mountain spotted fever.			1, 2	3
b. **Other:** Prenatal exposure to or congenital HIV, AIDS, disseminated or active tuberculosis, systemic fungal infections, disseminated gonococcal infection, endotoxin shock, toxin shock, fever of unknown origin, fever and neutropenia, fever in immunocompromised patient, Kawasaki disease.			1, 2	3
2. Recognize, provide initial management of, and refer appropriately uncommon or complicated conditions for the following Organ Systems infections such as:				
a. **Upper respiratory**: Orbital cellulitis, mastoiditis.			1	2, 3
b. **Oral/Pharyngeal**: Peritonsillar abscess, retropharyngeal abcess, dental abscess.			1	2, 3
c. **Middle airway**: Epiglottitis, bacterial tracheitis.			1	2, 3
d. **Lower airway**: Fungal pneumonia, empyema, lung abcess, large parapneumonic effusion.			1, 2	3
e. **Heart**: Endocarditis, thrombophlebitis, pericarditis, myocarditis, acute rheumatic fever.			1	2, 3
f. **GI tract**: Hepatic abscess, cholangitis, hemolytic uremic syndrome, parasites.			1, 2	3
g. **Intra-abdominal**: Appendicitis, peritonitis, abcess.			1	2, 3
h. **Renal**: Renal and perinephric abscess.			1	2, 3
i. **Genital**: Complicated PID, tubo-ovarian abscess.		1	2	3
j. **Musculoskeletal**: Osteomyelitis, septic arthritis, discitis, myositis.			1	2, 3
k. **CNS**: Brain abscess, epidural, subdural, and paraspinal abscess, encephalitis, transverse myelitis, peripheral neuropathies (diphtheria, botulism, tetanus), Guillain-Barre.		1	2	3
l. **Skin**: Staphylococcal scalded skin.			1	2, 3
m. **Eyes**: Keratitis, endophthalmitis.			1	2, 3
3. Recognize, provide initial management of, and refer appropriately uncommon or complicated conditions for the following Special Hosts infections such as:				
a. **Immunocompromised hosts**: Identify risk factors, and describe empiric treatment/management (e.g., AIDS, chemotherapy, steroid suppression).			1	2, 3
b. **Newborn**: Toxoplasmosis (intrauterine), perinatal herpes, perinatal systemic fungal, varicella.			1	2, 3

GOAL 5: Human Immunodeficiency Virus (HIV): Understand how to recognize, screen for, refer, and co-manage patients with HIV.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Demonstrate knowledge about the pathophysiology, natural history, presenting signs and symptoms, and associated opportunistic infections in patients with HIV.			1	2, 3
2. Describe risk factors for perinatal transmission of HIV, tests for screening and confirmatory diagnosis, and indications for referral including asymptomatic HIV infected patients.			1, 2	3
3. Describe the staging of HIV infection, the use of laboratory parameters (e.g., CD4 counts), and general treatment modalities including chemoprophylaxis.			1	2, 3
4. Co-manage patients with HIV with subspecialists and refer for appropriate complications.			1, 2	3
5. Demonstrate the ability to obtain informed consent for HIV testing, being aware of the legal requirements in your locale.				1, 2, 3

GOAL 6: Use of Antibiotics: Understand the appropriate use of antibiotics in managing infections in children.

COMPETENCIES: (PC, MK, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Describe principle antibiotics for common infections (including antibacterial, antiviral, antifungal, antiparasitic, antitubercular agents), including mechanism of action, spectrum of activity, adverse effects, drug interactions, relative cost.		1	2	3
2. Describe principles of antibiotic use, including static vs. bactericidal drugs, combinations/synergy, monitoring for toxicity/efficacy.		1	2	3
3. Identify changing patterns of microbial antibiotic resistance and alterations in antibiotic usage to meet these changes.		1	2	3
4. Identify several resources for current information on common antibiotics.			1	2, 3

GOAL 7: Immunizations (Infectious Disease): Understand how to use vaccines to prevent common childhood diseases.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Describe the currently recommended immunization schedules for preventing infections in children.			1	2, 3
2. Provide routine immunizations and related counseling, including contraindications, common side effects, informed consent.				1, 2, 3
3. Identify special circumstances justifying special immunizations such as influenza, pneumovax, vaccination of infant born to hepatitis B carrier, immunosuppressed patients and family contacts, immunization of HIV positive children.			1	2, 3
4. Identify sources for up-to-date information on new vaccines.				1, 2, 3
5. Describe current federal laws related to immunizations of children (including National childhood Vaccine Injury Act and Vaccine Adverse Event Reporting System [VAERS].			1	2, 3
6. Describe public health responses to common epidemics (measles, whooping cough, influenza).			1	2, 3
7. Describe quality control for office administration of common vaccines.			1, 2	3
8. Describe strategies to increase vaccination rates among children.			1, 2	3
9. Identify appropriate uses of passive antibodies IVIG, HBIG, TIG, immune serum globulin, cytogam, respigam.			1, 2	3

GOAL 8: Infection Control: Understand principles of infection control for pediatric settings.

COMPETENCIES: (PC, MK, PBLI, IC, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Describe principles of nosocomial infection surveillance, isolation procedures, and employee health issues (as addressed by OSHA).		1	2	3
2. Describe and consistently comply with standard precautions.				1, 2, 3
3. Describe guidelines for exclusion from school/day care.			1	2, 3
4. Identify and manage infections commonly seen in day care settings.			1	2, 3
5. Describe effective infection control procedures (including prophylaxis) appropriate for day care, school, and household settings.			1, 2	3

6. Identify resources for up-to-date information dealing with infection prevention and treatment for international travelers/adoptees.			1	2, 3
7. Describe indications for chemo- and immuno-prophylaxis in common infections (meningitis, hepatitis) including indications for use of gamma globulin and management of chicken pox exposure in immunosuppressed child.			1	2, 3
8. Counsel patients in the prevention of sexually transmitted diseases.				1, 2, 3
9. Describe appropriate prophylaxis to contacts of certain illnesses (e.g., measles, systemic hemophilus influenza, meningococcus, hepatitis A&B).			1	2, 3

GOAL 9: Laboratory Procedures (Infectious Disease): Understand the laboratory methods used in pediatrics relating to the management of infectious diseases in children.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Demonstrate proper specimen collection and transport for bacterial, viral, chlamydia, and mycoplasma cultures.			1	2, 3
2. Describe principles of clinical application of rapid diagnostic techniques for common pathogens (e.g., particle agglutination, rapid strep tests, monoclonal FA tests).			1	2, 3
3. Describe principles of these serologic tests: Western immunoblot, ELISA.		1	2	3
4. Describe principles of these molecular biologic test; PCR, Southern Blot, in situ hybridization.		1	2	3
5. Discuss principles and clinical applications for susceptibility testing (e.g., MIC, MBC, synergy and antagonism).		1	2	3
6. Describe principles and clinical application for antibiotic serum concentrations and serum bactericidal titers.		1	2	3
7. List infections for which there is mandatory reporting to the Health Department.			1, 2	3

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Ann & Robert H. Lurie Children's Hospital of Chicago

Overall Competencies for the Pediatric Residency Training Program

KIDNEY DISEASES

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Normal Versus Abnormal (Genitourinary): Understand how to differentiate between normal and pathological states related to the genitourinary system.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Demonstrate knowledge about the normal physiological development of the kidneys and bladder (e.g., renal concentrating ability, glomerular filtration and sodium handling, normal voiding pattern, urine output, and attainment of bladder control) including normal ranges for laboratory values relating to these functions.			1	2,3
2. Recognize normal anatomy of genitalia from birth through puberty and differentiate between normal, early, and delayed pubertal development.				1,2,3
3. Differentiate orthostatic proteinuria from clinically significant persistent proteinuria.		1		2,3
4. Differentiate benign causes of hematuria from clinically significant gross or microscopic hematuria.		1	2	3
5. Be aware of the dosage adjustment required for certain drugs in children with impaired renal function.			1,2	3
6. Demonstrate an understanding of kidney pharmacotherapy, including use of:				
a. Anti-hypertensive medications.		1	2	3
b. Immunosuppressive medications.			1	2,3
c. Synthetic vitamin D preparations.			1	2,3
d. Erythropoietin therapy.			1	2,3
e. Antimicrobial agents.				1,2,3
7. Demonstrate an understanding of:				
a. Structural elements of the kidney.			1	2,3
b. Glomerular functions.			1	2,3
c. Tubular functions.			1	2,3
d. Elements of the normal urinalysis.				1,2,3
e. Principles of extracorporeal fluid management.	1	2	3	

GOAL 2: Common Conditions Not Referred (Genitourinary): Understand how to diagnose and manage common conditions which generally do not require referral.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Recognize, describe the pathophysiology of, and manage these conditions:				
a. Urinary tract infection (pyelonephritis & cystitis)		1		2,3
b. Electrolyte disturbances of sodium or potassium.		1	2	3
c. Volume depletion.			1	2,3
d. Orthostatic proteinuria.		1	2	3
e. Microscopic hematuria – Benign hematuria.		1	2	3
f. Post-infectious GN.		1	2	3
g. Childhood nephrosis.		1	2,3	
h. Syndromes of excess ADH		1	2,3	
i. Primary (essential) hypertension.		1		2,3

GOAL 3: Conditions Generally Referred (Genitourinary): Understand how to recognize, initiate management of, and refer conditions which generally require referral.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Identify, provide initial management of, and refer appropriately these conditions.				
1, Acute and chronic kidney failure.	1,2	3		
2. Hemolytic uremic syndrome.		1	2,3	

3. Secondary causes of hypertension.	1	2	3	
4. Renal mass or cyst.	2,31			
5. Obstructive uropathy (e.g., posterior urethral valve).		1	2	3
6. Diabetes insipidus.	1		2	3
7. Urolithiasis.		1	2,3	
8. Tubular defects (e.g., renal tubular acidosis, Fanconi's, Bartter).	1	2	3	
9. Severe electrolyte imbalances indicative of a mixed acid base disturbance.	1	2,3		
10. Derangements of renal function in the acutely ill child (acute tubular necrosis).		1	2,3	
11. Hypocalcemic conditions.	1	2	3	
12. Hypercalcemic conditions.	1	2	3	
13. Peritonitis			1	2,3
14. Kidney transplant rejection	1	2	3	

GOAL 4: Systemic Conditions with Renal Involvement: Understand the pathophysiology and management of common systemic conditions presenting with renal involvement which may require referral.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Recognize, treat routine cases of, and refer as indicated these systemic conditions presenting with renal involvement:				
1. Henoch-Schonlein Purpura.		1	2,3	
2. Systemic lupus erythematosus.		1		2,3
3. Sickle cell anemia.	1	2	3	
4. Goodpasture sydrome.	1	2	3	
5. Rapidly progressive GN.	1	2	3	

GOAL 5: Urinary Tract Infection: Understand the appropriate methods of diagnosis and management of a child with a urinary tract infection.

COMPETENCIES: (PC, MK, IC)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Recognize and manage the child with an UTI including appropriate imaging studies and follow-up.			1	2,3
2. List the appropriate antibiotics for a UTI based on upper or lower tract disease and local antibiotic resistance patterns.			1	2,3
3. Discuss the usual pathophysiology and prognosis of recurrent UTI.		1	2	3
4. Identify the general approach to diagnostic evaluation and treatment of recurrent UTI's and criteria for referral.			1	2,3

GOAL 6: Fluids and Electrolytes: Understand the physiology of body fluids and electrolytes, derangements which may occur, and therapy.

COMPETENCIES: (PC, MK, IC)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Demonstrate knowledge about the normal physiology of body fluids (water) and salts including the intracellular versus extracellular component, composition of salt in each (Na, K), intake and output, sensible and insensible losses, and normal daily requirements.			1	2,3
2. List the signs and symptoms of dehydration and calculate fluid deficits.			1	2,3
3. Define the different types of dehydration and the etiologies of each.			1	2,3
4. Considering maintenance, deficits, and anticipated on-going losses, calculate fluid therapy including water and salt content for patients presenting with the various types of dehydration.			1	2,3
5. Demonstrate the ability to monitor IV fluid therapy in patients and make appropriate changes.			1	2,3
6. Identify the differences in composition of the commonly used fluids (intravenous and oral rehydration solutions).			1	2,3
7. Interpret correctly acid base laboratory values, list the differential diagnosis of metabolic acidosis and alkalosis, develop a step-wise approach to the diagnosis, and institute appropriate therapy.			1	2,3
8. Demonstrate an understanding of the pathogenesis, diagnosis, and therapy of common disturbances in water, sodium, potassium, and acid-based homeostases.			1	2,3

Overall Competencies for the Pediatric Residency Training Program

NEONATAL INTENSIVE CARE

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement;
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Resuscitation and Stabilization: Understand how to resuscitate and stabilize a critically ill neonate.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Formulate a differential diagnosis for life-threatening symptoms presenting in the NICU.		1	2	3
2. Describe steps in resuscitation and stabilization.			1	2,3
3. Demonstrate efficient and effective resuscitation in mock codes.			1	2,3
4. Demonstrate appropriate critical thinking in actual code situations.	1		2	3
5. Demonstrate the ability to draw arterial and venous blood from newborn infants of different weights		1	2	3
6. Demonstrate the ability to intubate newborn infants of different weights, including those at risk for meconium aspiration		1	2	3
7. Demonstrate the ability to place umbilical arterial and venous catheters		1	3	3

GOAL 2: Common Signs and Symptoms: Understand how to manage common signs and symptoms of high risk preterm and term neonates.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. **General** – Small-for-gestational age, large-for-gestational age, history of maternal infection, history of maternal drug usage, lethargy, irritability, feeding difficulties.				
a. Perform an appropriate assessment.			1	2,3
b. Formulate a differential diagnosis.			1	2,3
c. Formulate plan for continuing assessment & management.		1	2	3
2. **Cardiorespiratory** – Respiratory distress, cyanosis, apnea, bradycardia, hypotension, shock.				
a. Perform an appropriate assessment.		1	2	3
b. Formulate a differential diagnosis.		1	2	3
c. Formulate plan for continuing assessment & management		1	2	3
3. **GI/surgical** – Distended abdomen, abdominal mass, emesis, bloody stools, hepatospenomegaly, meconium plug.				
a. Perform an appropriate assessment.	1		2	3
b. Formulate a differential diagnosis.	1		2	3
c. Formulate plan for continuing assessment & management.	1		2	3
4. **Metabolic** – Metabolic acidosis, elevated serum ammonia, hypocalcemia.				
a. Perform an appropriate assessment.		1	2	3
b. Formulate a differential diagnosis.		1	2	3
c. Formulate plan for continuing assessment & management.		1	2	3
5. **Hematologic** – Thrombocytopenia, neutropenia, jaundice in non-ill term infant, jaundice in ill infant, petechiae, polycythemia.				
a. Perform an appropriate assessment.			1	2,3
b. Formulate a differential diagnosis.			1	2,3
c. Formulate plan for continuing assessment & management.			1	2,3
6. **Neurologic** – Hypotonia, seizures, microcephaly, macrocephaly, neural tube defect.				
a. Perform an appropriate assessment.			1	2,3
b. Formulate a differential diagnosis.			1	2,3
c. Formulate plan for continuing assessment & management.			1	2,3
7. **Renal** – Hematuria, urinary retention, renal mass, edema.				
a. Perform an appropriate assessment.		1	2	3
b. Formulate a differential diagnosis.		1	2	3
c. Formulate plan for continuing assessment & management		1	2	3

8. **Dermatologic** – Common skin rashes, skin care of preterm infants, birthmarks.				
a. Perform an appropriate assessment.			1	2,3
b. Formulate a differential diagnosis.			1	2,3
c. Formulate plan for continuing assessment & management		1	2	3

GOAL 3: Common Conditions: Understand how to manage, under the supervision of a neonatologist, common neonatal diagnoses in tertiary NICU.

COMPETENCIES: (PC, MK, IC, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Fluid/Nutrition				
1. Outline the appropriate fluid management for preterm/term infants over the first week of life.		1	2	3
2. Understand the role of enteral vs. parenteral nutrition in neonates.				1,2,3
3. Discuss the benefits and shortcomings of breastmilk, breastmilk fortification, and commercial formulas.			1	2,3
4. Describe the use of trophic feedings.			1	2,3
5. Describe the advantages and disadvantages of continuous vs. bolus feedings in neonates.			1	2,3
6. Discuss the use of enteral and parenteral calcium supplements in neonates.			1	2,3
7. Discuss the use of supplemental vitamin administration in neonates.			1	2,3
Newborn Screening				
1. List the neonatal diseases screened for in the State of Illinois.			1	2,3
2. Describe unique neonatal screening for procedures for infant born to an HIV+ or Hepatitis B+ mother.			1	2,3
3. Identify factors in the neonatal period which contribute to the risk of cerebral palsy, SIDS, hearing loss, child abuse, asthma, failure to thrive, developmental delay and learning disabilities.			1	2,3
Respiratory System				
1. Discuss the evaluation and management of respiratory distress in full-term and preterm infants.			1	2,3
2. Discuss the etiology, pathophysiology, natural history, complications, and treatment of:			1	2,3
a. Respiratory distress syndrome.			1	2,3
b. Pneumonia.		1	2	3
c. Meconium aspiration syndrome.		1	2	3
d. Persistent pulmonary hypertension on the newborn.		1	2	3
e. Air leak syndrome.		1	2	3
f. Congenital diaphragmatic hernia.	1	2		3
3. Interpret blood gas data appropriately and discuss indications for ventilator assistance.			1	2,3
4. Discuss the indications for potential benefits, risks, and complications of the following therapies				
a. CPAP			1	2,3
b. Endotracheal intubation.			1	2,3
c. Conventional ventilation.			1	2,3
d. High frequency ventilation.		1	2	3
e. Exogenous surfactant.			1	2,3
f. Corticosteroids.		1	2	3
g. ECMO	1		2	3
5. Discuss the definition, pathophysiology, and management of chronic lung disease.				
Cardiovascular System				
1. Discuss the evaluation of a cyanotic newborn.		1	2	3
2. Discuss the work-up and management of a heart murmur.			1	2,3
3. Discuss the management of neonatal congestive heart failure.			1	2,3
4. Discuss the evaluation and management of neonatal shock.		1	2	3
5. Discuss the indications for and possible complications of PGE therapy.		1	2	3
Infectious Diseases				
1. Discuss the immunologic handicaps of full-term and preterm infants in relation to susceptibility to infections.		1	2	3
2. Discuss “universal precautions” in the NICU.			1	2,3
3. Define indications for sepsis w/u for infants.			1	2,3
4. Discuss the management of viral infections, Group B Streptococcal infections.			1	2,3

Hematology				
1. Describe the evaluation and treatment of DIC.		1	2	3
2, Review indications for the transfusion of blood products.			1	2,3
3, Interpret neonatal CBC with an understanding of the definition of anemia, L shift, thrombocytopenia, and neutropenia.			1	2,3
4. Discuss the initiation of iron therapy in neonates.			1	2,3
5. Indications for phototherapy, exchange transfusion.			1	2,3
Bilirubin				
1. Discuss the physiological jaundice in the full-term and preterm infants.			1	2,3
2. Discuss the common causes of hemolysis and pathological jaundice in the newborn.			1	2,3
3. Discuss the mechanisms of action of phototherapy.			1	2,3
4. Discuss the Coombs test, reticulocyte count, red blood cell indices, and blood smear in the evaluation of hemolytic disease in the newborn.			1	2,3
Neurology				
1. Discuss the neurological development of the preterm infant.		1	2	3
2. Understand the etiology, presentation, management and long term outcome of the following:				
a. IVH			1	2,3
b. HIE		1	2	3
c. Post-hemorrhagic hydrocephalus		1	2	3
d. Periventricular leukomalacia		1	2	3
Renal				
1. Describe the normal physiology of glomerular and tubular function in the term/preterm neonate.		1	2	3
2. Discuss the etiology, presentation, and management of acute renal failure in the newborn.		1	2	3
Surgical				
1. Describe the risk factors for, clinical features, and medical management of NEC.		1		2,3
2. Discuss the indications for surgical interventions for NEC.			1	2,3
3. Describe the clinical features of: DH, TEF, gastroschisis, omphalocele, myelomeningocele.		1	2	3
4. List causes of respiratory distress in the newborn which are amenable to surgical intervention.		1	2	3
5. Describe the management of bilious emesis in the newborn.		1	2	3
6. Outline the management of delay in passage of stool/meconium.			1	2,3
7. Outline the management of abdominal distention and poor urine output.			1	2,3
Apnea and Bradycardia				
1. List types of apnea which occur in infants.			1	2,3
2. Discuss the treatment of apnea of prematurity.			1	2,3
3. Discuss the indications and limitations of home monitoring.			1	2,3
Genetics				
1. Discuss the etiology and presentation of common trisomies at birth.		1	2	3
2. Define autosomal dominant/recessive and sex-linked patterns of inheritance.				1,2,3

GOAL 4: Diagnostic Testing: Understand how to use and interpret common laboratory and imaging studies in the NICU setting.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Order and interpret the following common laboratory studies and explain the indications and limitations of each.				
1. Coombs test.			1	2,3
2. CBC/diff/plt count, lytes, BUN, creatinine, calcium.				1,2,3
3. Neonatal drug screening.				1,2,3
4. CXR.		1	2	3
5. Cranial U/S.	1	2	3	
6. Babygram for umbilical line placement.			1	2,3

GOAL 5: Monitoring and Therapeutic Modalities: Understand the application of physiologic monitoring and special technology applied to the care of the neonate.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
For each of the following, discuss indications and demonstrate proper use.				
1. Cardiac monitor.				1,2,3
2. Pulse oximetry.				1,2,3
3. Umbilical arterial and venous catheterization.			1	2,3
4. Phototherapy.				1,2,3
5. Continuous monitoring of temperature, respiration, blood pressure.				1,2,3
For each of the following, discuss indications and demonstrate proper use.				
1. VP shunt.			1	2,3
2. Ileostomy.		1	2	3
3. Gastrostomy.		1	2	3
4. Continuous feedings.			1	2,3
5. Home monitoring.			1	2,3
6. Central line.			1	2,3
7. Physical therapy.			1	2,3
8. Home oxygen therapy.			1	2,3

GOAL 6: Management and Decision-Making: (Under the guidance of a neonatologist) Develop a logical plan and effective approach to the assessment and daily management of critically ill neonates and their families.

COMPETENCIES: (PC, MK, PBLI, IC)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Apply principles of evidence medicine.		1	2	3
2. Develop a problem list.		1		2,3
3. Recognize when to contact consultants.			1	2,3

GOAL 7: Teamwork and Professional Development: Understand how to function effectively as part of an interdisciplinary team.

COMPETENCIES: (IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Communication effectively with the neonatal team: residents, fellows, attendings, consultants, nurse practitioners, nutritionists, pharmacists. respiratory therapists, social workers, discharge coordinators, and nurses.				1,2,3
2. List the key members of a multi-disciplinary NICU discharge planning team.				1,2,3

GOAL 8: Patient Support and Advocacy: Understand how to provide comprehensive and supportive care to the NICU infant and their families.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Recognize role as a child advocate.				1,2,3
2. Be familiar with the grieving process, delivery of bad news, and uncertainty to parents.		1	2	3
3. Interact with patients and families with honesty and integrity.				1,2,3
4. Understand the importance of communication with primary care physician.			1	2,3

GOAL 9: Medical Ethics and Legal Issues: Become familiar with ethical and medical-legal considerations in the care of critically ill neonates.

COMPETENCIES: (PC, MK, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Discuss the concepts of futility, withdrawal, and withholding of care.		1		2,3
2. Identify appropriate hospital ethics committee consultation.		1		2,3
3. Demonstrate sensitivity to the financial burdens of families.	1	2	3	

GOAL 10: Perinatal Prevention: Understand the pediatrician's role in reducing neonatal mortality and morbidity.

COMPETENCIES: (PC, MK, IC, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Discuss how neonatal mortality rates relate to maternal race, ethnicity, place of residence, and country of birth.		1		2,3
2. Discuss how low birth weight rates relate to maternal race, ethnicity, place of residence, and country of birth.		1		2,3
3. Understand the general principals about neonatal transport systems.			1	2,3
4. Describe tests generally used to assess fetal well-being.			1	2,3
5. Describe the pediatrician's role in assessment and management of common conditions during pregnancy; including, maternal insulin-dependent diabetes, multiple gestation, pregnancy-associated hypertension, placental abnormalities, illicit drug/tobacco/alcohol usage, and chorioamnionitis.			1	2,3

GOAL 11: Medical Records: Understand how to maintain medically accurate and legally appropriate medical records.

COMPETENCIES: (PC, PBLI, IC, P)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Ensure that the initial history and physical exam are complete.				1,2,3
2. Maintain daily timed notes.				1,2,3
3. Ensure that the discharge summary is complete.				1,2,3

MCGAW MEDICAL CENTER of NORTHWESTERN UNIVERSITY

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Overall Competencies for the Pediatric Residency Training Program

NEUROLOGY

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement;
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Normal Versus Abnormal (Neurology): Understand how to identify whether a child is normal or suffers from a neuropathological condition

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Identify normal and abnormal neurologic development including language, cognition, motor development, reflexes, socialization.			1	2,3
2. Demonstrate a skillful neurologic history and exam which can distinguish normal from abnormal findings, peripheral from central nervous system lesions, and static from progressive neurologic dysfunction.			1	2,3
3. Identify temporary neurological dysfunction (e.g. ataxia or lethargy due to anticonvulsant loading dose) from dysfunction due to pathological conditions (e.g., traum, poisoning, severe infection, hypoglycemia, electrolyte imbalance).		1	2	3
4. Describe those symptoms of neurologic diseases manifested outside the central nervous system (e.g., vomiting, weakness, precocious puberty, polyuria), and explain how the CNS dysfunction produces the symptoms.		1	2	3

GOAL 2: Common Conditions Not Referred (Neurology): Understand how to recognize and manage neurological disease conditions which generally do not require referral.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Diagnose, describe pathophysiology of, and manage these conditions:				
1. Absence seizures.		1	2	3
2. Febrile seizures.			1	2,3
3. Follow-up for static encephalopathy.			1	2,3
4. Migraine and tension headaches.		1	2	3
5. Transient neurological disturbances due to drug ingestions (e.g., benzodiazepams).		1	2	3
6. Simple generalized tonic-clonic seizures.			1	2,3
7. Viral meningitis.			1	2,3
8. Attention deficit disorder, uncomplicated.		1	2	3

GOAL 3: Conditions Generally Referred (Neurology/Neurosurgery): Understand how to recognize and initiate management of neurological conditions which generally require referral.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Recognize, provide initial treatment for, and appropriately refer these conditions.				
1. Acute encephalopathy (e.g., metabolic, lead, hypertensive, anoxic, drug/toxin indiced).		1	2	3
2. Bacterial meningitis.			1	2,3
3. Brain tumor.			1	2,3
4. Cerebral palsy.			1	2,3
5. Coma, increased intracranial pressure.		1	2	3
6. Craniosynostosis.		1	2	3
7. Encephalitis.		1	2	3
8. Headaches which are severe, progressive, or refractory to simple therapy, or suggestive of malignancy (e.g., early morning).		1	2	3
9. Hydrocephalus.			1	2,3
10. Movement disorders (chorea, ataxia, tics).		1	2	3
11. Mental retardation, loss of neurologic skills, autism.		1	2	3
12. Muscle weakness or flaccidity (e.g., Guillain-Barre, muscular dystrophy, hypotonia).		1	2	3
13. Neurocutaneous diseases.		1	2	3
14. Seizures (which are difficult to diagnose, manage, or associated with progressive neurologic impairment or in status epilepticus).		1	2	3

15. Severe head trauma, complicated skull fractures, spinal cord injuries.		1	2	3
16. Ventriculoperitoneal shunt infection and dysfunction.			1	2,3

GOAL 4: Seizures: Understand how to evaluate, manage, and refer patients with seizures.

COMPETENCIES: (PC, MK, PBLI, IC, P)	<25%	25-50%	50-75%	75-100%
1. Differentiate the various seizure types (e.g., generalized, focal, complex, partial, absence).		1	2	3
2. Manage uncomplicated seizures effectively using a step-wise approach starting with the appropriate anticonvulsant for the type of seizure, and drug monitoring.		1	2	3
3. List the indications for referral for patients with seizures (complicated, difficult to diagnose or manage, intractable, in status epilepticus).		1	2	3
4. Develop a step-wise plan for evaluation and management for a patient in status epilepticus.		1	2	3
5. Demonstrate an understanding of and counsel parents about febrile seizures including epidemiology, natural history, risk factors for afebrile seizures, and treatment options.			1	2,3

GOAL 5: Headaches: Understand how to evaluate and manage headaches.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Identify the historical features which help to differentiate tension or migraine headaches from those caused by increased intracranial pressure.		1	2	3
2. Describe the therapeutic options available for benign, migraine, or tension headaches in children.		1	2	3
3. Identify the indications for radiologic imaging (CT, MRI) in patients with headaches.		1	2	3

GOAL 6: Complex Neurological Testing: Understand the indications for neurologic testing which requires complex or expensive equipment or procedures.

COMPETENCIES: (PC, MK, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Describe the indications for, the limitations of, and the relative cost of these neurological tests:				
1. Electroencephalogram (EEG).		1	2	3
2. Head computerized tomography scan (CT).		1	2	3
3. Head magnetic resonance scan (MR).		1	2	3
4. Lumbar puncture.			1	2,3
5. Psychometric testing.		1	2,3	
6. Electromyography (EMG) and nerve conduction velocity (NCV).		1	2	3

GOAL 7: Neurological Pharmacology: Understand the indications for use, the side effects, and the mode of action of commonly used neurological drugs.

COMPETENCIES: (PC, MK)	<25%	25-50%	50-75%	75-100%
For commonly used anticonvulsants: describe indications and contraindications, side effects, and appropriate laboratory tests to follow drug therapy and side effects, and drug interactions with common drugs (e.g., erythromycin).		1	2	3

GOAL 8: Prevention (Neurology): Understand the pediatrician's role in prevention of neurologic disorders in children.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Counsel parents/patients about prevention of head and spinal cord trauma (seat belts, car seats, helmets, firearm safety, driving injuries).			1	2,3
2. Counsel parents about prevention related to environmental toxins (e.g., lead) and household poisonings.			1	2,3
3. Describe public health and legislative strategies to reduce head and spinal cord injury.		1	2,3	
4. Describe how rehabilitation and early intervention can reduce long-term sequela from neurologic injury or congenital CNS disorders.		1	2	3
5. Counsel parents and patients about precautions to be taken in children with epilepsy.		1	2	3

MCGAW MEDICAL CENTER of NORTHWESTERN UNIVERSITY

Ann & Robert H. Lurie Children's Hospital of Chicago

Overall Competencies for the Pediatric Residency Training Program

NORMAL NEWBORN

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement;
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Prenatal Visit:

COMPETENCIES: (PC, MK, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Understand the importance of an approach to the prenatal office visit, including timing of the visit, goals for the parents and the practice and topics to be covered.		1	2	3

GOAL 2: Role of the Pediatrician in the Normal Newborn Nursery:

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	<25%	25-50%	50-75%	75-100%
Understand the role of the primary care pediatrician in the normal newborn nursery and how it relates to the continuum of office health supervision care, including appropriate communication and transfer of records if the ongoing care giver will be someone else, or a different physician in the same practice.			1	2,3

GOAL 3: Hospital Routines:

COMPETENCIES: (PC, MK, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Understand the rationale behind various nursery and delivery routines and how these affect the health and well being of families and newborns (e.g., rooming in, on-demand feeding, 24 hour discharge of the newborn).				1,2,3

GOAL 4: Prenatal and Perinatal Risk Assessment:

COMPETENCIES: (PC, MK, IC)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Demonstrate competency in obtaining and interpreting historical risk factors including:				
1. Maternal medical and obstetric history.			1	2,3
2. Family history.			1	2,3
3. Maternal test results of blood type, Rh, rubella, hepatitis, serology, HIV, tuberculosis, drugs of abuse.				1,2,3

GOAL 5: Postnatal Risk Assessment:

Competencies: (PC, MK, IC)	<25%	25-50%	50-75%	75-100%
Demonstrate competency in obtaining and interpreting a social history as it pertains to family strengths and family and environmental risks.				1,2,3

GOAL 6: Physical Exam and Gestational Age Assessment:

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Demonstrate competence in the performance of the newborn physical exam and gestational age assessment (Ballard).				1,2,3

GOAL 7: The Sick Newborn:

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Demonstrate the ability to recognize and initiate appropriate management of the sick newborn in the normal newborn nursery.		1	2	3

GOAL 8: The Transition:

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Describe the physiology of neonatal transition after delivery and relate it to overall management of the newborn in the nursery. Describe how to recognize signs and symptoms of inadequate adaptation to the transition period.		1	2	3

GOAL 9: Common Problems:

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Demonstrate understanding of the diagnosis and management of common exam findings and clinical situations encountered in the normal newborn nursery, including:				
Exam Findings:				
1. Common birthmarks.			1	2,3
2. Common rashes			1	2,3
3. Heart murmurs.		1	2	3
4. Cyanosis.		1	2	3
5. Tachypnea/respiratory distress.		1	2	3
6. Hypothermia or hyperthermia.		1	2	3
7. Congenital hip dislocation.			1,2	3
8. Fractured clavicle.			1,2	3
9. Facial palsy, Erb's palsy.			1,2	3
10. Cephalhematoma, caput succedaneum.				1,2,3
11. Congenital anomalies.			1	2,3
Clinical Situations:				
1. Hypoglycemia.			1,2	3
2. Infant of diabetic mother.			1,2	3
3. Sepsis evaluation.			1	2,3
4. Jaundice.			1	2,3
5. SGA/LGA/Preterm.		1	2	3
6. Post maturity.			1,2	3
7. Maternal substance abuse.		1	2	3
8. Delayed passage of urine, meconium.		1	2	3
9. Vomiting.		1	2	3
10. Poor suck.		1	2	3
11. Polycythemia.		1	2	3
12. Jittery infant.		1	2	3
13. Hypotonic infant.		1	2	3

GOAL 10: Circumcision:

COMPETENCIES: (PC, MK, PBLI, IC, P)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Demonstrate understanding of the indications, risks and procedure used for circumcision of newborns. Understand the AAP recommendations.			1	2,3
2. Demonstrate the ability to explain to parents the procedure of circumcision, its indications, contraindications, risks and benefits.			1	2,3
3. Counsel parents on circumcision site care.				1,2,3
4. Discuss current approaches to pain for neonatal circumcision and counsel parents about the advantages, disadvantages, risks, and contraindications.		1	2	3

GOAL 11: Newborn Screening:

COMPETENCIES: (PC, MK, IC, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Describe the state neonatal blood screening program, including diseases screened for, timing, testing procedures and initial management of abnormal results.		1	2	3
2. Describe the pediatricians responsibility for follow up of neonatal screening results.			1	2,3

GOAL 12: Routine Nursery Interventions:

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Eye prophylaxis				1,2,3
2. Vitamin K injection				1,2,3
3. Hepatitis B vaccine				1,2,3

GOAL 13: Breast Feeding:

COMPETENCIES: (PC, MK, PBLI, IC, P)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Understand and demonstrate the ability to counsel parents (when appropriate) about:				
1. The benefits of breast feeding.			1	2,3
2. Physiology of lactation.			1	2,3
3. Maternal medication use and breast feeding.			1	2,3
4. Proper feeding technique including frequency, positions, effects of supplementation, etc.			1	2,3
5. Normal and abnormal patterns of weight loss.			1	2,3
6. Common problems.			1	2,3
7. Role of lactation consultants.				1,2,3

GOAL 14: Bottle Feeding:

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Understand and demonstrate the ability to counsel parents (when appropriate) about:				
1. Proper feeding technique.			1	2,3
2. Different types of proprietary formulas and how to choose.			1	2,3
3. Importance of iron fortification (AAPCON recommendation of no appropriate role for low iron formulas).				1,2,3
4. Safety issues (e.g., bottle propping, micro-waving).			1	2,3
5. Common problems.			1	2,3
6. WIC program.				1,2,3

GOAL 15: Anticipatory Guidance at Nursery Discharge:

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Understand how to provide anticipatory counseling at nursery discharge which relates to newborn behavior, family adjustment, injury prevention, and access to medical services.			1	2,3
2. Demonstrate the ability to counsel parents in this regard.			1	2,3
3. Discuss criteria for discharge readiness of the newborn and caretakers, indicating particular awareness of the criteria to be satisfied for early (less than 48 hours) discharge.			1	2,3
4. Routine follow-up.			1	2,3
5. Warning signs of jaundice, infection, dehydration, and feeding problems.			1	2,3
6. Normal infant behaviors related to crying, sleep, and wakefulness and how to deal with common problems.			1	2,3
7. Postpartum adjustment including the need for rest and support, and the potential for postpartum "blues" (e.g., depression, anxiety, feelings of inadequacy, fear and resentment).			1	2,3
8. Uniqueness of each infant's temperament and how to identify and respond to this.			1	2,3
9. Potential for sibling rivalry and ways to handle this.			1	2,3
10. Injury prevention (e.g., car seat for discharge, smoke alarms, crib safety, water temperature, (120°F), constant supervision of newborn with siblings or pets).				1,2,3
11. Sleep position.				1,2,3

McGAW MEDICAL CENTER of NORTHWESTERN UNIVERSITY — Ann & Robert H. Lurie Children's Hospital of Chicago

Overall Competencies for the Pediatric Residency Training Program

OPTHALMOLOGY

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement;
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: **Normal versus Abnormal (Ophthalmology):** Understand how to distinguish whether a child is normal or has a pathologic eye condition.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Recognize the normal development of visual acuity and visual tracking in children.			1	2, 3
2. Distinguish normal or clinically insignificant eye findings from potentially serious ones (e.g., variations in pupil size, ptosis, coloration of the iris, appearance of the optic disk).		1	2	3

GOAL 2: **Common Conditions Not Referred (Ophthalmology):** Understand how to diagnose and manage ophthalmic problems which generally do not require referral.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Recognize, describe the pathophysiology of, and manage the conditions listed below which generally do not require referral:				
1. Conjunctivitis				1, 2, 3
2. Corneal abrasion			1	2, 3
3. Periorbital cellulitis				1, 2, 3
4. Hordeolum			1	2, 3
5. Blocked lacrimal duct				1, 2, 3
6. Simple foreign bodies			1	2, 3

GOAL 3: Conditions Generally Referred (Ophthalmology): Understand how to recognize, manage, and refer ophthalmic problems which generally require referral.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Recognize, provide initial evaluation and management of, and appropriately refer these conditions:				
1. Amblyopia		1	2	3
2. Cataract		1	2	3
3. Chemical burns		1	2	3
4. Complicated and intraocular foreign bodies		1	2	3
5. Decreased visual acuity			1	2, 3
6. Estropia, exotropia, ptosis		1	2	3
7. Glaucoma		1	2	3
8. Herpetic keratitis		1	2	3
9. Orbital cellulitis		1	2	3
10. Retinopathy of prematurity		1	2	3
11. Significant eye trauma manifested by hyphema, extraocular muscle palsy, globe penetration, or orbital fracture.		1	2	3
12. White pupillary reflex		1	2	3

Goal 4: Ophthalmic Signs of Systemic Disorders: Understand how various signs of ophthalmic pathology may be manifestations of systemic disorders.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Recognize these signs as potential manifestations of systemic disorders and describe the pathophysiological process involved:				
1. Retinal hemorrhages (child abuse)			1	2, 3
2. Iritis (collagen vascular disease)		1	2	3
3. Cataracts (metabolic disorders)		1	2	3
4. Papilledema (increased intracranial pressure)		1	2	3
5. Chorioretinitis (congenital infections)		1	2	3

GOAL 5: Prevention (Ophthalmology): Understand the pediatrician's role in preventing ophthalmic injury or disorders in children.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Provide prevention/counseling related to the eyes, including:				
1. Importance of protective eye wear for sports, chemical splashes, ultraviolet light exposure and other activities which warrant eye protection.			1	2, 3
2. Routine screening for visual acuity and eye disorders in the newborn nursery, office and school setting.			1	2, 3

McGAW MEDICAL CENTER of NORTHWESTERN UNIVERSITY

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Overall Competencies for the Pediatric Residency Training Program

ORTHOPEDIC SURGERY

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement;
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Normal versus Abnormal (Orthopedics): Understand how to decide that a child is normal or has a pathological orthopedic condition.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Distinguish normal variations in foot, knee, and leg development.		1	2	3
2. Recognize when a child's orthopedic dysfunction (e.g., a limp) is a temporary state caused by some minor problem or represents a significant pathological process.		1	2	3

GOAL 2: Common Conditions Not Referred (Orthopedics): Understand how to diagnose and manage children's orthopedic problems which generally do not require referral

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Recognize and manage these conditions:				
1. Calcaneal apophysitis		1	2	3
2. Clavicular fracture			1	2, 3
3. Dislocated radial head			1	2, 3
4. Femoral anteversion and retroversion		1	2	3
5. Flat feet		1	2	3
6. Internal and external tibial torsion		1	2	3
7. Low back strain			1	2, 3
8. Metatarsus adductus		1	2	3
9. Muscle strain			1	2, 3
10. Non-displaced finger and toe fractures			1	2, 3
11. Osgood-Schlatter's		1	2	3
12. Overuse syndromes		1	2	3
13. Patellofemoral syndrome		1	2	3
14. Simple joint sprains			1	2, 3
15. Little League elbow and shoulder		1	2	3
16. Scoliosis less than 20 degrees		1	2	3

GOAL 3: **Conditions Generally Referred (Orthopedics):** Understand how to recognize, manage, and refer children's orthopedic problems which generally require referral.

COMPETENCIES: (PC, MK)	<25%	25-50%	50-75%	75-100%
Recognize, provide initial management of, and refer appropriately these conditions such as the following:				
1. Avacular necrosis of the femoral head (Perthes Disease)		1	2	3
2. Cervical spine injury		1	2	3
3. Compartment syndromes		1	2	3
4. Congenital club foot		1	2	3
5. Fractures and dislocations not listed in Goal 2 above		1	2	3
6. Knee ligament and meniscal tears		1	2	3
7. Osteochondritis dissecans		1	2	3
8. Scoliosis with more that a 20° curve		1	2	3
9. Septic joint			1	2, 3
10. Slipped capital femoral epiphysis		1	2	3
11. Spondylolysis or spondylolisthesis		1	2	3

GOAL 4: **Care for Chronic Illnesses (Orthopedics):** Understand how to provide coordinated care for common chronic conditions requiring coordination and case management with orthopedics.

COMPETENCIES: (PC, MK, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Describe a comprehensive coordinated care plan (including orthopedics and physical therapy) for the patient with conditions such as:				
1. Cerebral palsy		1	2, 3	
2. Spina bifida		1	2, 3	
3. Amputation		1	2, 3	

GOAL 5: Sports Medicine (Orthopedics): Understand the pediatrician's role in the evaluation and treatment of sports-related issues in children and adolescents.

COMPETENCIES: (PC, MK, PBLI, IC, P)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Perform an appropriate preparticipation sports physical exam and counsel patients regarding appropriate athletic events, fist aid treatment of injuries, and prevention strategies.		1	2	3
2. Demonstrate knowledge of the basics of pediatric exercise physiology, and aerobic, anaerobic, strength, and flexibility training.			1	2, 3
3. Define sideline and office criteria for return to play after injuries.		1	2	3
4. Demonstrate the ability to provide evaluation and stabilization of sports injuries at the scene.		1	2	3
5. Demonstrate knowledge about anaerobic steroids and counsel patients about the abuse of steroids and other performance-enhancing drugs.		1	2	3
6. Recognize and treat appropriate heat-related illness and dehydration associated with sports participation.		1	2	3

GOAL 6: **Prevention (Orthopedics):** Understand the pediatrician's role in preventing orthopedic disorders.

COMPETENCIES: (PC, MK, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Screen for developmental dysplasia of the hip.			1	2, 3
2. Discuss strategies and limitations related to scoliosis screening in the school versus the office setting.			1	2, 3
3. Perform basic splinting for extremity injuries		1	2	3

Overall Competencies for the Pediatric Residency Training Program

OTOLARYNGOLOGY

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement;
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: **Normal versus Abnormal (Otolaryngology):** Understand how to determine whether a child is normal or has a pathological otolaryngological condition.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Demonstrate anatomic and physiologic understanding of normal development of the ear, sinuses, nose, pharynx, hearing, speech, and language from birth to adolescence.			1	2, 3
2. Recognize when a child's otolaryngological dysfunction (e.g., hoarse voice, nasal discharge) is a temporary state caused by some minor problem or represents a potentially serious pathological process.		1	2	3

Goal 2: **Common Conditions Not Referred (Otolaryngology):** Understand how to diagnose and manage otolaryngological problems which do not require referral.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Recognize and manage these conditions:				
1. Allergic rhinitis				1, 2, 3
2. Blunt nasal trauma			1	2, 3
3. Cervical adenitis				1, 2, 3
4. Epistaxis				1, 2, 3
5. Otitis media and externa, uncomplicated				1, 2, 3
6. Parotitis (mild)			1	2, 3
7. Pharyngitis (viral and streptococcal), uvulitis				1, 2, 3
8. Routine care for the child with a tracheostomy				1, 2, 3
9. Simple nasal and ear canal foreign bodies				1, 2, 3
10. Sinusitis				1, 2, 3
11. Stridor, mild (Croup laryngomalacia)				1, 2, 3
12. Viral enanthems (herpetic, herpangina, measles)			1	2, 3

Goal 3: Conditions Generally Referred (Otolaryngology): Understand how to recognize, provide initial management of, and refer otolaryngological problems which generally require consultation or referral.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Recognize, describe the pathophysiology of, provide initial evaluation of, and refer appropriately conditions such as:				
1. Abcess (retropharyngeal, peritonsillar)		1	2	3
2. Airway obstruction (acute, chronic, tonsillar, adenoidal, nasal, and upper airway; larynx, trachea)			1	2, 3
3. Cholesteatoma		1	2	3
4. Congenital anomalies of the pinna, nose, lip, palate and jaw		1	2	3
5. Complicated otitis media, sinusitis, epistaxis and parotitis			1	2, 3
6. Acute supraglottitis		1	2	3
7. Facial nerve palsy		1	2	3
8. Foreign body of the aerodigestive tract		1	2	3
9. Head and neck masses		1	2	3
10. Nasal polyp			1	2, 3
11. Significant hearing loss			1	2, 3
12. Significant trauma to the middle or external ear, nose, palate and pharynx			1	2, 3
13. Sleep apnea, obstructive			1	2, 3
14. Tympanic membrane perforation (traumatic or persistent)			1	2, 3

GOAL 4: Otitis Media: Understand how to diagnose and manage acute and chronic suppurative otitis media and middle ear effusions.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Explain the physical findings, the pathophysiology, and appropriate terminology for inflammatory processes in the middle ear.				1, 2, 3
2. Describe current standards of care for these conditions.				1, 2, 3
3. Demonstrate knowledge of the typical pathogens, antibiotic treatment options, and resistance patterns in otitis media.				1, 2, 3
4. Perform hearing evaluation as indicated for the otitis media.			1	2, 3
5. Recognize and treat chronic otitis media with effusion including appropriate referral.			1	2, 3
6. Recognize and treat acute suppurative otitis media.				1, 2, 3
7. Manage chronic, recurrent suppurative otitis media including prophylactic antibiotics: monitor for hearing loss and language delay and recognize indications for referral.			1	2, 3
8. Define indications for PE (ventilatory) tubes and general issues related to the risks and benefits of the procedures.			1	2, 3

GOAL 5: **Sinusitis:** Understand how to diagnose and manage sinusitis.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Describe the symptoms, signs and pathophysiology of sinusitis.			1	2, 3
2. Identify the indications for the appropriate use of radiologic tests to identify sinusitis (x-rays and CT scan).			1	2, 3
3. List the pathogenic organisms associated with sinusitis, suitable antibiotics, duration of therapy and appropriate follow up, and indications for referral.			1	2, 3

GOAL 6: Hearing Loss: Understand how to recognize and manage hearing loss.

COMPETENCIES: (PC, MK, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Explain strategies and timing for routine hearing screening.			1	1, 2
2. Perform in-office hearing screening using pure tone audiometry and tympanometry.		1	2	3
3. List the medical indications for hearing testing; and describe the methods availible to test hearing (pure tone audiometry, tympanometry, acoustic emissions, brainstem evoked potentials, etc.).		1	2	3
4. Recognize and refer the following conditions associated with hearing loss: congenital syphilis, congenital CMV, hereditary deafness, acoustic neuroma, atresia of the ear, ototoxicity, noise-induced hearing loss, bacterial menengitis, and vestibular disorders.		1	2	3
5. Describe appropriate services for the hearing impaired child, including school, speech, and psychologic support.		1	2	3
6. Demonstrate ability to remove cerumen.				1, 2, 3

GOAL 7: Prevention (Otolaryngology): Understand preventive steps the pediatrician can take related to otolaryngologic disorders.

COMPETENCIES: (PC, MK, PBLI, IC, P)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Counsel families and adolescents about reducing noise-related hearing loss.				1, 2, 3
2. Counsel parents about ways to prevent nasal, airway, and ear foreign bodies.				1, 2, 3
3. Counsel parents in smoking cessation to decrease respiratory symptomatology.				1, 2, 3
4. Screen children for hearing loss.		1	2	3

Overall Competencies for the Pediatric Residency Training Program

PULMONARY MEDICINE

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement;
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Normal Versus Abnormal (Pulmonary): Understand how to distinguish normal from pathological pulmonary conditions.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Recognize and discuss normal patterns of breathing, including variations with sleep (e.g., brief apnea, periodic breathing), anxiety, and fever.			1	2,3
2. Differentiate normal variations in chest wall anatomy (e.g., mild pectus excavatum from those which impair ventilation).			1	2,3

GOAL 2: Common Conditions Not Referred (Pulmonary): Understand how to diagnose and manage pulmonary problems which generally do not require referral.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Diagnose, describe the pathophysiology of, and manage these pulmonary conditions:				
1. Asthma (mild and moderate).			1	2,3
2. Bronchiolitis.			1	2,3
3. Bronchitis.			1	2,3
4. Chest pain.			1	2,3
5. Croup.			1	2,3
6. Follow-up of apnea of prematurity.			1	2,3
7. Uncomplicated pneumonia (bacterial, viral).			1	2,3

GOAL 3: Conditions Generally Referred (Pulmonary): Understand how to recognize, manage, and refer pulmonary problems which generally require referral.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Identify, provide initial management of, and refer appropriately these conditions.				
1. Airway obstruction.			1	2,3
2. Apnea (sleep and other)			1	2,3
3. Apparent life threatening event.			1	2,3
4. Bronchopulmonary dysplasia.			1	2,3
5. Cystic fibrosis.			1	2,3
6. Foreign body at or below the epiglottis.			1	2,3
7. Pneumonia with empyema.			1	2,3
8. Pulmonary presentations and complications of HIV infection (pneumocystis carinii infection and lymphoid interstitial pneumonitis).			1	2,3
9. Refractory or severe asthma.			1	2,3
10. Respiratory failure (acute or chronic).			1	2,3
11. Significant pneumothorax.			1	2,3
12. Tuberculosis.			1	2,3
13. Volatile substance abuse.			1	2,3

GOAL 4: Bronchopulmonary Dysplasis (BPD): Understand the general pediatrician's role in the management of bronchopulmonary dysplasia in children.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Along with the subspecialist, coordinate the overall care of a child with BPD.			1	2,3
2. Recognize worsening condition due to a superimposed infection of a child with BPD.			1	2,3
3. Describe preventive care for children with BPD including influenza vaccination, chemoprophylaxis, and RSV prophylaxis.			1	2,3
4. Describe the medications used for BPD, their side effects, and appropriate monitoring including dosage, changes necessitated by growth.			1	2,3
5. Describe additional, special nutritional requirements of patients with BPD.			1	2,3

GOAL 5: Cystic Fibrosis: Understand the general pediatrician's role in the management of cystic fibrosis.

COMPETENCIES: (PC, MK, IC, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Recognize the presenting signs or symptoms and refer appropriately to a specialty CF center.			1	2,3
2. Describe a coordinated care plan.		1	2	3
3. Recognize and treat acute episodic illnesses.			1	2,3
4. Recognize, provide initial treatment to, and refer patients having complications.			1	2,3
5. Demonstrate appropriate use of laboratory and radiologic tests to confirm diagnoses and follow the course and complications of the disease.		1	2	3
6. Describe additional, special nutritional requirements of patients with CF.		1	2	3

GOAL 6: Prevention: Understand the general pediatrician's role in preventing pulmonary disorders in children.

COMPETENCIES: (PC, MK, PBLI, IC, P)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Counsel patients/parents about the hazards of cigarette smoke including passive smoke and provide resources for smoking cessation.			1	2,3
2. Counsel patients/parents about the hazards of volatile substances both in an occupational exposure and in abuse.			1	2,3
3. Provide annual influenza immunization for patients with chronic lung disease.				1,2,3

GOAL 7: Pulmonary Function Testing: Understand the basic principles of pulmonary function testing.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Demonstrate an understanding of the types of exercise challenges available including cardiac stress tests, EIA challenges, exercise tolerance assessment, and anaerobic challenges.		1	2	3
2. Demonstrate an understanding of various techniques used to determine how body composition is measured and the utility in chronic pulmonary disease.		1	2	3
3. Demonstrate an understanding of the types of spirometers are available and what data they generate.			1	2,3
4. Based on graphical and numerical data, be able to distinguish restrictive from obstructive disease.		1	2	3
5. Demonstrate an understanding of the criteria of an acceptable test.			1	2,3
6. Demonstrate an understanding of the role that spirometry has in the management of pulmonary diseases.			1	2,3
7. Demonstrate an understanding of the basic principles of how pulse oximeters work.			1	2,3
8. Demonstrate an understanding of the limitations and utility of the pulse oximeter.			1	2,3
9. Demonstrate an understanding of the multiple components of pulmonary function testing available including assessment of lung volumes, respiratory muscle strength, broncho-provocation, diffusion capacity and bronchodilator responsiveness.		1	2	3

MCGAW MEDICAL CENTER of NORTHWESTERN UNIVERSITY — Ann & Robert H. Lurie Children's Hospital of Chicago

Overall Competencies for the Pediatric Residency Training Program

RADIOLOGY

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement;
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Normal versus Abnormal (Radiology): Understand how to differentiate normal from abnormal x-rays.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Demonstrate basic knowledge about the ability of plain radiographs to identify different structures (e.g., bone, air, fat and water).			1	2, 3
2. Demonstrate the ability to differentiate normal variants from abnormal plain radiographs including changes associated with normal physical development.		1	2	3
3. Demonstrate the ability to read plain radiographs in a systematic manner.			1	2, 3

GOAL 2: **Interpreting Common Radiographs (Radiology):** Understand how to use plain radiographs in a diagnosis of common and/or serious conditions.

COMPETENCIES: (PC, MK, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Demonstrate the ability to order radiographs appropriately in a cost efficient manner, interpret radiographs accurately, and manage patients effectively based on radiographs such as the following commonly used x-rays and conditions:				
a. **Abdominal X-Ray** – abdominal masses, fecalith, free air and perforation, ileus, intestinal obstruction (congenital and acquired), pneumatosis and stones (kidney and gall bladder).		1	2	3
b. **Chest** – atelectasis, conditions associated with cardiomegaly, airway obstruction, foreign body, hyperinflation, pneumonia both lobar and interstitial, pneumothorax, tumors, cardiovascular abnormalities leading to either increased or decreased pulmonary blood flow.		1	2	3
c. **Extremities** – bone tumors, cysts and lytic lesions, common fractures and dislocations (Salter Harris classification of fractures).		1	2	3
d**. AP and Lateral neck** – adenoid and tonsillar hypertrophy, epiglottitis, foreign body, retropharyngeal abscess and cellulitis, subglottic narrowing either acquired or congenital.		1	2	3
e. **Sinuses** – maxillary sinuses, mastoid, ethmoid		1	2	3
f. **Skull** – linear and depressed skull fractures, split sutures.		1	2	3
g. **Spine** – cervical spine dislocation and fracture, collapsed vertebra, congenital anomalies, scoliosis.		1	2	3

GOAL 3: **Specialized Imaging (Radiology):** Understand the principles and roles of special imaging in the diagnosis and management of pediatric patients.

COMPETENCIES: (PC, MK, PBLI, IC, P, SBP)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Describe the basic principles of the indications for, the limitations of, the differences between, and risks associated with specialized radiologic imaging such as computerized tomography, contrast (excretory urogram, intravenous pyelogram, barium swallow, upper GI series, small bowel follow through, barium enema, angiography), ultrasound and echocardiogram, nuclear medicine studies, and magnetic resonance.			1	2, 3
2. Utilize the radiologist effectively as a consultant.			1	2, 3
3. Demonstrate knowledge about the use of different modalities of imaging based on clinical utility (e.g., bone scan versus skeletal survey in the work up of child abuse).		1	2	3
4. Demonstrate understanding of radiation safety and selection of modalities so as to minimize radiation exposure.	1	2	3	

MCGAW MEDICAL CENTER of NORTHWESTERN UNIVERSITY — Ann & Robert H. Lurie Children's Hospital of Chicago

Overall Competencies for the Pediatric Residency Training Program

RHEUMATOLOGY

Goals and Competencies

PC: Patient Care; MK: Medical Knowledge; PBLI: Practice-Based Learning & Improvement
IC: Interpersonal & Communication Skills; P: Professionalism; SBP: Systems-Based Practice

GOAL 1: Normal Versus Abnormal (Rheumatology). Understand how to distinguish normal or transient disorders from pathological rheumatologic conditions.

COMPETENCIES: (MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Define range of motion of joints at various stages of normal physical development.			1	2,3
2. Differentiate arthralgia from arthritis.			1	2,3
3. Differentiate benign, self-limited leg pains from potentially serious ones.		1	2	3
4. Explain the findings on clinical history and examination that suggest rheumatologic disease requiring further evaluation and treatment. Include the factors that differentiate arthralgia from arthritis, benign from pathologic limb pain, and fever patterns suggestive of systemic juvenile idiopathic arthritis (JIA).		1	2	3
5. Interpret clinical and laboratory tests associated with rheumatologic diseases. These tests should include: joint X-rays, MRI and ultrasound findings for evidence of arthritis, CBC, ESR, complement, rheumatoid factor, ANA, anti-DNA, HLA B27, synovial fluid analysis.		1	2	3
6. Describe how well-child care may differ in a child with a rheumatic disease, including avoidance of live virus vaccinations and management of fever in children on immunosuppressive medication.			1	2,3

GOAL 2: Undifferentiated Signs and Symptoms (Rheumatology). Evaluate, treat, and/or refer patients with presenting signs and symptoms that may indicate a rheumatologic disease process.

COMPETENCIES: (MK, PC)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Create a strategy to determine if the following presenting signs and symptoms are caused by a rheumatologic disease and determine if the patient needs treatment or referral.				
a. Limb pain		1	2	3
b. Joint pain			1	2,3
c. Joint swelling			1	2,3
d. Limp			1	2,3
e. Fever			1	2,3
f. Skin rash		1	2	3
g. Muscle weakness		1	2	3
h. Muscle tenderness			1	2,3
i. Red eyes associated with arthritis or arthralgia			1	2,3
j. Fatigue, weight loss			1	2,3
2. Create a strategy to determine if the following lab tests are indicated in a patient with suspected rheumatic disease				
a. ANA			1	2,3
b. RF			1	2,3
c. ASO			1	2,3

GOAL 3: Common Conditions Not Referred (Rheumatology). Understand how to diagnose and manage rheumatologic problems which generally do not require referral.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Recognize, describe the pathophysiology of, and manage these conditions:				
a. Transient synovitis			1	2,3
b. Benign musculoskeletal pain			1	2,3
c. Growing pains (idiopathic limb pains of childhood)		1	2	3
d. Hypermobility syndrome		1	2	3
e. Patellofemoral syndrome		1	2	3

f. Drug reactions with associated arthralgias or arthritis (e.g. serum sickness)		1	2	3
g. Typical Henoch-Schonlein Purpura		1	2	3
h Typical Kawasaki disease		1	2	3
i. Mild Raynaud's phenomenon/vasomotor instability not associated with other symptoms		1	2	3

GOAL 4: Conditions Generally Referred (Rheumatology). Understand how to recognize, initiate management of, and refer rheumatologic problems which require referral.

COMPETENCIES: (PC, MK, IC, SBP)	<25%	25-50%	50-75%	75-100%
Recognize, provide initial management of, and refer as needed the following:				
a. All subtypes of juvenile idiopathic arthritis including acute and chronic presentations		1	2	3
b. Spondyloarthropathies, in particular the enthesitis-related arthritis subtype of JIA		1	2	3
c. Arthritis associated with malignancy, inflammatory bowel disease, viral infections, bleeding diatheses		1	2	3
d. Lyme arthritis		1	2	3
e. Systemic lupus erythematosus		1	2	3
f. Dermatomyositis		1	2	3
g. Scleroderma		1	2	3
h. Mixed or overlapping connective tissue disease		1	2	3
i. Severe Raynaud's phenomenon or Raynaud's associated with other symptoms		1	2	3
j. Vasculitides including atypical or complicated HSP, granulomatosis with polyangiitis		1	2	3
k. Atypical Kawasaki disease		1	2	3
l. Fever of unknown origin, prolonged and periodic fevers, autoinflammatory diseases		1	2	3
m. Reflex sympathetic dystrophy		1	2	3
n. Musculoskeletal pain syndromes including fibromyalgia: know when to refer to rheumatology and/or pain management programs		1	2	3
o. Sarcoidosis		1	2	3

GOAL 5: Child with a Limp (Rheumatology). Understand the management of a child with a limp.

COMPETENCIES: (PC, MK)	**<25%**	**25-50%**	**50-75%**	**75-100%**
Discuss the evaluation, diagnostic work up, differential diagnosis, and initial management of a child with:				
a. Limp			1	2,3
b. Swollen or painful joint			1	2,3
c. Refusal to walk			1	2,3
d. Refusal to use a limb			1	2,3

GOAL 6: Prevention (Rheumatology). Understand the general pediatrician's role in prevention and health maintenance of rheumatologic disorders.

COMPETENCIES: (PC, MK, PBL, IC)	**<25%**	**25-50%**	**50-75%**	**75-100%**
1. Counsel patients in endemic areas about how to reduce exposure to Lyme disease.		1	2	3
2. Counsel patients with streptococcal disease or prior rheumatic fever about the importance of antibiotics to reduce the risk of rheumatic fever.			1	2,3
3. Explain the role of physical therapy, occupational therapy, and routine eye exams in various types of juvenile arthritis.		1	2	3
4. Counsel patients treated with corticosteroids about the importance of calcium and Vitamin D supplementation.		1	2	3
5. Counsel patients with sun-sensitive connective tissue diseases (lupus, dermatomyositis) about the importance of sun protection.		1	2	3
6. Counsel parents of immunosuppressed patients about the importance of vaccines to prevent severe illness.			1	2,3
7. Offer non-live vaccines to all immunosuppressed patients.			1	2,3

ADVOCACY/POPULATION HEALTH AREA OF FOCUS

1. Mission Statement

The Advocacy and Population Health Area of Focus is a unique, hands-on opportunity to learn about the social determinants of child health, gain the skills necessary to be an effective physician-advocate, and complete an individualized advocacy project that makes an impact upon the community.

2. Specific Aims

- Provide residents who have an interest in child advocacy & population health with the opportunity to explore this area of pediatrics in greater depth
- Provide **experiential training opportunities** in advocacy & populations health, including both **legislative advocacy/health policy** as well as **community advocacy/underserved populations**
- Provide **faculty-mentored research opportunities** in advocacy/population health
- Provide **career counseling** for residents, allowing them to explore the ways in which advocacy/population health can be incorporated into the practice of general or subspecialty pediatrics

3. Recruitment and Selection

- **Any resident with an interest in advocacy & population health**, including but NOT limited to residents with advanced degrees (i.e. MPH) or previous experience in advocacy/population health.
- Residents should apply **by January of PGY-1 year.** Applicants after January of PGY-1 year can likely be accommodated; however, they will need to discuss plans with Dr. Lever or Dr. Sheehan.

4. Benefits

- Residents who complete the Area of Focus will receive a certificate and designation upon graduation.
- Networking exposure to Chicago area individuals and organizations concerned with population health.
- Individualized advocacy project may lead to journal publication, conference presentations and continuation of pursuits beyond residency.
- Launch a career as a physician-advocate and discover your own "niche."

5. Requirements for Obtaining Advocacy Certificate

- Individualized resident learning plan to be submitted by end of PGY-1 year.
- Must incorporate educational components, advocacy/research project and experiential opportunities.
- Documentation of fulfillment of all components of individualized learning plan is required in order to obtain pathway certificate at graduation.

6. Advocacy Pathway Faculty

- **Co-directors:**
  - Ronit Lever, MD — *Hospital-Based Medicine* — rlever@luriechildrens.org
  - Karen Sheehan, MD, MPH — *Emergency Medicine* — ksheehan@luriechildrens.org
- **Associate Faculty:**
  - Mariana Glusman, MD — *Academic General Pediatrics* — mglusman@luriechildrens.org
  - Rishi Agrawal, MD, MPH — *Hospital-Based Medicine* — ragrawal@luriechildrens.org
  - Anagha Loharikar, MD — *Academic General Pediatrics* — aloharikar@luriechildrens.org
  - Gregory Webster, MD — *Cardiology* — rgwebster@luriechildgrens.org

GENERAL CURRICULUM

1. Core Curriculum Components

(elements required of ALL residents—not only those on the pathway)

- Community Medicine and Advocacy Rotation (PGY-2 year)
- Continuity Clinic Quality Improvement Project (longitudinal)
- *Take Action* publication
- Chicago Youth Program (CYP) visit during outpatient rotation (PGY-1 year)

2. Pathway-Specific Educational Components

- AAP online curriculum: independent self-study modules
- Journal clubs (approximately 3x/year) with other advocacy pathway residents and faculty, likely in the evenings. Also an opportunity to collaborate and share ideas.
- Individualized education on research skills by faculty mentor

3. Individualized Advocacy Project

- Longitudinal effort, plus 2-3 months of **dedicated elective time in PGY-3 year**
- May take the form of "**Senior Project**," or be *in addition* to it
- Faculty mentorship
- Presentation at annual hospital-based Advocacy Day
- Opportunities to submit for publication, if desired

4. Experiential Opportunities

(selected from list below based on individual areas of interest)

- Continuity Clinic at Uptown
  Note: Continuity Clinic assignments are determined prior to PGY-1 year. Incoming residents with known interest in advocacy may request placement at Uptown Clinic but cannot be guaranteed.
- Hospital-based committees
  - Public Policy Committee
  - Child Advocacy Committee
- Community-based committees
  - Chicago Public School Health Education Task Force
  - Strengthening Chicago's Youth (SCY) quarterly meetings
  - Consortium to Lower Obesity in Chicago Children (CLOCC) quarterly meetings
- Hospital media advocacy
  - Salubrity blog
  - Press conferences
- Illinois Chapter of the American Academy of Pediatrics (ICAAP) advocacy (i.e. Reach Out and Read)
- Legislative advocacy opportunities in Springfield, IL and Washington, DC
- AAP legislative advocacy elective in Washington, DC
- Involvement in local grassroots community organizations
- Many more!

5. Mentorship

- Meetings 2-3x/year with selected faculty mentor
- Mentorship between senior/junior residents on the pathway
  - "Pods" composed of one PGY-1, one PGY-2, and one PGY-3 resident

GENERAL PEDIATRIC RESIDENT GLOBAL HEALTH EDUCATION

1. Global Health Core noon lectures (total 4)
   - One-two core lectures from faculty throughout the year
   - Resident presentation of cases from Tanzania and other international rotations
   - Tanzanian visiting resident talk

2. Tanzania Curriculum (for all interested residents)
   - Monthly evening meetings: logistics for travel, resident presentations, Swahili lesson
   - Three week elective in Tanzania, focusing on medical student education
   - SUGAR – Simulation

GLOBAL HEALTH AREA OF FOCUS

1. Mission Statement

The Global Health Area of Focus is a unique opportunity for residents to learn more about global health issues, receive extensive pre-travel training, participate in an international elective, and complete a scholarly project.

2. Specific Aims

- Provide experiential training opportunities in both domestic and global environments, with a focus on community health and underserved populations
- Provide career and research mentorships to residents interested in global public health
- Promote scholarly activity in urban global health for residents
- Enhance curriculum in global public health

3. Collaborative Effort

This pathway utilizes natural strengths and existing institutions as the basis for the curriculum, experiences, and mentorship:

- Northwestern Institute for Public Health and Medicine – Center for Global Health, Program in Public Health, Center for Community Health (Alliance for Research in Chicago Communities)
- University of Illinois, Chicago School of Public Health – Global Health and Urban Health Initiatives
- Midwest Global Health Education Consortium

4. Recruitment and Selection

- Any resident with experience or interest in global health or underserved populations
- Residents should apply by January of PGY-1 year; faculty committee selects participating residents

5. Benefits

- Receive a certificate upon completion of residency.
- Participate in experiential training opportunities in both domestic and global environments, with a focus on community health and underserved populations.
- Receive career mentorship in seeking out global health opportunities after residency.
- Complete a scholarly project, which can lead to subsequent projects, as well as presentations and/or publication.

6. Global Health Pathway Faculty

- Molly Shane Hospital-Based Medicine mshane@luriechildrens.org

GENERAL CURRICULUM

1. **Education**
   a. Required readings with each clinical rotation that pertain to global health
   b. Didactic Curriculum
      Topics for didactic curriculum can include:
      - Social determinants of health, economics/globalization
      - Global burden of communicable and non-communicable diseases
      - Health systems/programs
      - Vulnerable populations
      - Disaster relief
      - Travel medicine
      - Global health careers
   c. Journal Club – Brown bag lunch meetings once every other month (5-6 times/year) – PGY-1, PGY-2, PGY-3
   d. Northwestern Center for Global Health Lectures

2. **Scholarship**
   a. Project proposal submission by end of PGY-1 year/early in PGY-2 year
   b. IRB completion during first half of PGY-2 year
   c. Project implementation, data analysis PGY-2-PGY-3 year
   d. Abstract submission for PAS (or other regional/national meetings)
   e. Participation in Northwestern Research Day and/or Global Health Day
   f. Presentation at Grand Rounds at Lurie Children's

3. **Clinical/Community-Engaged Experiences**
   a. Continuity Clinic at Uptown
   b. International or domestic clinical rotation (can include Tanzania and one other elective)
   c. Elective with international or domestic public health agency

4. **Mentorship**

   A key component of this pathway will include mentorship for residents, both for their scholarly projects, as well as career mentorship

MEDICAL EDUCATION AREA OF FOCUS

1. Mission Statement

The Medical Education Area of Focus is a unique, collaborative opportunity to learn about the various aspects of medical education, develop mentorship and networking connections with other medical educators, improve skills in clinical teaching, and develop an individualized educational portfolio.

2. Specific Aims

- Provide residents who have an interest in medical education with the opportunity to receive more background on this career path and increased exposure to opportunities to grow as an educator
- Provide experiential opportunities in medical education in a variety of formats, including clinical teaching, administration, educational research, curriculum design and assessment
- Provide career mentorship to residents interested in medical education
- Promote faculty-mentored scholarly activity in medical education for residents
- Allow residents to grow in experience through a variety of teaching opportunities that will be documented and reflected upon in their educational portfolios

3. Recruitment and Selection

- Any resident with experience or interest in medical education may apply for the program
- Residents should apply by April of PGY-1 year. Applicants after April of PGY-1 year can likely be accommodated as long as they apply by October of PGY-2 year; however, they will need to discuss plans with both Dr. Unti and Dr. Mangold
- To apply for the program, residents should write a letter of interest, including any previous experience, addressed to the faculty of the Medical Education program

4. Benefits

- Residents who complete the Area of Focus will receive a certificate and designation upon graduation.
- Exposure to workshops and presentations by local experts in medical education on topics encompassing clinical teaching, curricular design, learner assessment, administration and educational research.
- Networking with medical educators and individual mentorship to help with both career guidance and development of a portable educational portfolio
- Individualized educational project may lead to journal publication, conference presentations and continuation of pursuits beyond residency.

5. Requirements for Obtaining Medical Education Certificate

- Individualized resident learning plan to be submitted by middle of PGY-2 year
- Must incorporate educational components, scholarly project and experiential opportunities
- Documentation of fulfillment of all components of individualized learning plan, including an educational portfolio review, is required in order to obtain pathway certificate at graduation

6. Medical Education Area of Focus Faculty

- **Co-directors:**
  - Karen Mangold Emergency Medicine kmangold@luriechildrens.org
- **Associate Faculty:**
  - Robyn Bockrath Hospital-Based Medicine rbockrath@luriechildrens.org
  - Zarina Dohadwala Hospital-Based Medicine zdohadwala@luriechildrens.org

GENERAL CURRICULUM

1. Education

a. Core curriculum consisting of medical education topics including curricular content that incorporates educational theory and different education styles
b. Curriculum delivered through required readings and web-based content, including web-based training modules on Pedialink
c. Small group seminars – Include medical education PGY-1, PGY-2, PGY-3 residents
d. Specific educational experiences to enhance medical education training (see Medical Education Experiences below)

2. Scholarship

a. Support with senior research project beginning at the end of PGY-1, early PGY-2 year
b. Involvement in annual Feinberg School of Medicine Medical Education Day
c. Attendance at Feinberg Academy of Medical Educators (FAME) workshops
d. Attendance/participation at regional/national meetings

3. Medical Education Experiences

a. Development of individual learning plan targeting medical education activities in conjunction with a faculty mentor
b. Involvement in KidSTAR simulation based educational opportunities with medical students and residents
c. Curricular development, e.g. pediatric-centered problem based learning cases for medical students
d. Extended involvement in M4 teaching selective, including focused education on feedback
e. Participation in motivational interviewing education for medical students
f. Educational committee and assessment participation in medical school curricular development, including Committees on Wellness, Teamwork and Professionalism
g. Teaching medical student clinical/physical exam

4. Mentorship

A key component of this pathway will include mentorship for residents, both for their scholarly projects, as well as career mentorship.

PRIMARY CARE & COMMUNITY HEALTH AREA OF FOCUS

1. Mission Statement

The Primary Care and Community Health Area of Focus enhances your general education in primary care by integrating experiences in clinical practice and/or community health systems, and a mentored primary care/community health centered project, to explore aspects of primary care, health care delivery, social determinants, and community health, tailored to your interests.

2. Specific Aims

- Provide residents with an interest in primary care and community health with opportunities to explore and achieve competency beyond the general pediatric resident experience
- Provide experiences and research mentorship in areas of community practice and primary care
- Provide residents with career counseling over the span of their resident training

3. Recruitment and Selection

- All residents have the option of choosing Primary Care and Community Health as their area of interest. We are all open to discussing and exploring a resident's interest
- Application is ideally January of the internship year. We are also happy to discuss this option with residents in their second year.

5. Requirements for Obtaining Primary Care and Community Health Certificate

- Over the first 12 months, an individual plan will be created to reflect interests of resident, incorporating educational, experiential and project goals.
- Documentation of fulfillment of individualized learning plan components is required in order to obtain pathway certificate at graduation. (Goals may be modified if necessary)

6. Benefits

- Residents who complete the Area of Focus will receive a certificate and designation upon graduation.
- Networking exposure to Chicago area individuals, practices and organizations concerned with pediatric primary care and/or community health.
- Opportunities for robust primary care & community health-related mentorship and research projects which may lead to journal publication, conference presentations and continuation of mentoring and pursuits beyond residency.
- Opportunities for hands-on experience with advocacy in primary care.
- Preparation to be an excellent clinician, academic primary care or community health leader.

7. Mentorship

- Mentors are selected by the resident according to interest and availability in January, or beginning of pathway decision. Mentors meet at least 3 times per year, with informal guidance in the interim.
- Those interested in private practice will have a Division of Community-Based Primary Care co-mentor.

8. Primary Care and Community Health Pathway Faculty

- **Director:**
  - Barbara Bayldon, MD — *Head, Section of Primary Care; Associate Medical Director, CCE* — bbayldon@lurichildrens.org
- **Associate Faculty:**
  - Mariana Glusman, MD — *Medical Director, Reach out and Read* — mglusman@luriechildrens.org
  - Dennis Vickers, MD/MPH — *Medical Director, Care Coordination Entity* — dvickers@luriechildrens.org
  - Tomitra Latimer, MD — *Member, Section of Primary Care* — tlatimer@luriechildrens.org
  - Alex Ryan, MD — *Associate Medical Director, CCE* — alexandrar@luriechildrens.org
  - Maheen Quadri-Sheriff, MD — *Member, Section of Primary Care* — mquadrisheriff@luriechildrens.org

GENERAL CURRICULUM

1. Core Curriculum Components *(Required of ALL residents—not only those on the pathway)*

- Primary Care Outpatient Rotation (PGY-1 year)- includes Project DOCC experience with medically Complex and Chicago Youth Program visit
- Community Medicine and Child Advocacy Rotation (PGY-2 year) involves both site experiences and a month long project on public health and social determinants.
- Continuity Clinic Quality Improvement Project (lead during PGY-2 year)
- Continuity Clinic 1/week during all three years of resident training
- Continuity Clinic and Cooper Colloquium Primary Care Talks

2. Pathway-Specific Educational Components

- Bi-monthly journal club, in the evening at Lurie Children's Hospital
- Primary Care noon conferences, and 3 x a year Primary Care Focus Faculty lectures
- On-line Curriculum- AAP and CATCH funded curriculum on Primary care topics
- Medico-Legal Partnership educational opportunities
- Primary Care Elective-This flexible elective will be developed by the resident to meet their goals with guidance from medical Education and the Primary Care Section mentor. Depending on interest, it will focus more on private practice or community health. A product is required at the end of the rotation

3. Individualized Project

- May take the form of "**Senior Project**," or be in addition to it
- Mentorship provided by faculty from Primary Care Section or other interested faculty
- This longitudinal primary care project may be oriented toward research, advocacy (community or policy), or quality improvement project with measured outcomes.
- Presentation and/or publication will be strongly encouraged.
- Examples might include:
  - working with Pediatric Practice Research Group
  - leading a quality improvement initiative at the Lurie Children's Pediatrics-Uptown Health Center
  - completing an asset map of a community
  - creating a practice management handbook for other residents

4. Experiential Opportunities *(Selected from list below based on individual areas of interest)*

- Continuity Clinic at Uptown
  Entering interns interested in the primary care and community health focus will be prioritized for placement in the academic community medical center of the Primary Care Section. This will provide the opportunity to work with a very diverse multilingual and multicultural low income patient population.
- Private Practice Experiences
  In conjunction with the Section of Primary Care, several private pediatricians from the Division of Community Primary Care, will mentor interested residents over the longer term in issues related to private pediatrics and Office management
- Elective in Surgical, Ancillary and Community Care Services
  Residents may choose to design an elective according to their specific interests, guided by their mentor, working with ancillary services in the areas of audiology, speech, Early Intervention, Lurie's program of mental Health in the Schools, Almost Home KIDS, Psychiatry and motivational Interviewing
- Child with Medical Complexity Elective (*beginning July 2015*)
- Hospital Based Committees/Programs (*depending on schedule and availability*)
  - Child Advocacy Advisory Council
  - Children's Health Needs Assessment Committee
  - Health Literacy Committee
  - Primary Care Center of Feinberg1NU- under development

- Community Based Committees
    - Illinois Chapter AAP (ICAAP)- ICAAP has many committees and initiatives including the School Health, Obesity, Injury and Violence Prevention, Abuse and Neglect, Immunizations, Governmental Affairs, Child development, Children with Disabilities, Adolescent and Breast feeding Committees, Reach out and Read and other advocacy initiatives.
    - National AAP: located in suburbs of Chicago – COMSRFT – Committee on Medical Students, Residents and Fellow Trainees
    - Chicago Public School Health education Task force
    - Chicago Department of Public Health - Julie Morita, Medical Director
    - Consortium on Lowering Obesity in Chicago's Children Quarterly meetings
    - Other community organizations according to interest, Albany Park Community Association, Centro Romero, Good Shepherd, etc.

Overall Competencies for the Pediatric Residency Training Program

DIDACTIC SESSIONS

Topics Covered in Conference

The topic areas listed for the didactic curriculum have been derived from suggested content published by the American Board of Pediatrics. The residency program strives to present this material during a given educational rotation (as noted) or on a recurring two-year cycle in the allotted didactic conference time.

	2012-2013	2013-2014	2014-2015	In Rotation
ADOLESCENT MEDICINE				
Sexually Transmitted Infections		X	X	
HEADDS Interview			X	
Contraception	X		X	
Eating Disorders	X	X		
Dysfunctional Uterine Bleeding	X	X		
ALLERGY				
Asthma	X	X	X	
Food allergies	X	X	X	
Drug allergies		X		
Sinusitis/allergic rhinitis/allergic conjunctivitis	X	X	X	
ANESTHESIA				
Pain management		X		
Conscious sedation	X			
BEHAVIORAL/DEVELOPMENTAL PEDIATRICS				
Normal child development – toddler	X	X	X	
Normal child development – school age child	X		X	
Attention deficit hyperactivity disorder	X		X	
Learning disabilities and testing methods	X	X	X	
Autism		X	X	
CARDIOLOGY				
Chest Pain	X	X	X	
Acquired heart disease	X	X		
EKG/arrhythmias	X	X	X	
Heart murmurs	X	X	X	
Cyanotic/acyanotic heart disease	X	X		
Syncope			X	
CHILD ABUSE & NEGLECT				
Physical abuse	X		X	
Sexual abuse			X	
Shaken baby syndrome	X		X	
Burns/abuse mimics			X	X
COMMUNITY MEDICINE & CHILD ADVOCACY				
Injury prevention			X	X
Lead poisoning	X		X	
CRITICAL CARE				
Respiratory distress	X		X	
Shock	X	X	X	
DERMATOLOGY				
Acne	X	X	X	
Atopic dermatitis	X	X	X	
Molluscum/warts				X
Childhood exanthems	X	X	X	
Infant birthmarks				X

EMERGENCY MEDICINE				
Dental Trauma		X	X	
Acute abdomen	X	X		
Fractures/injuries		X		
Rashes not to be missed	X	X	X	
Toxins/ingestions/hydrocarbons	X		X	
Anaphylaxis		X		
Trauma			X	X
Head Injury/Concussion	X	X	X	
ENDOCRINOLOGY				
Short stature/normal growth	X	X	X	
Diabetes/DKA	X	X	X	
Precocious puberty/delayed puberty	X		X	
Adrenal insufficiency/CAH		X		
Thyroid disease			X	X
Sexual differentiation	X			
ETHICS				
Evidence Based Medicine	X	X	X	
GASTROENTEROLOGY				
Inflammatory bowel disease	X	X	X	X
Celiac disease	X	X	X	
Gastric esophageal reflux disease		X	X	
Constipation/diarrhea	X	X	X	
Milk protein allergy	X		X	
GI Bleed (Upper & Lower)	X			
Hepatitis	X			
Hyperbilirubinemia	X	X	X	
Acute liver failure	X	X		
Nutrition	X	X	X	
GENERAL PEDIATRICS				
Failure to thrive	X	X	X	
Pyelonephritis/urinary tract infection	X	X	X	
Apparent life threatening event		X	X	
Care of medically complex patient			X	X
Gastroenteritis/fluid management	X			
Child with Limp	X		X	
Fever in Neonate	X	X		
Obesity management	X	X	X	
Primary care for the adopted child			X	
Vaccine Refusal	X		X	
Breastfeeding	X		X	
GENETICS				
Newborn screen	X		X	
Inborn errors of metabolism		X		
Down syndrome	X	X	X	
Common Syndromes	X		X	
HEMATOLOGY/ONCOLOGY				
Evaluation of anemia	X	X	X	
Sickle cell anemia/ hemoglobinopathies			X	
Acquired/Inherited bleeding disorders	X	X		
Acute leukemia			X	X
Pediatric solid tumors			X	X
Pediatric stem cell transplant			X	X
DVT and pediatric thrombophilia		X		

HEMATOLOGY/ONCOLOGY (continued)				
Late effects of cancer therapy	X			
Basics of transfusion medicine	X	X		
Oncologic emergencies				X
Management of pain		X		
IMMUNOLOGY				
Humoral immunologic function/testing			X	
Immunodeficiencies			X	
INFECTIOUS DISEASE				
HIV			X	X
Kawasaki disease				X
Antibiotics	X	X	X	
Meningitis/encephalitis				X
Staph/strep/rheumatic fever	X	X		
Immunizations	X	X	X	
Travel Medicine	X	X	X	
KIDNEY DISEASE				
Nephrotic syndrome/nephritis		X	X	
Hematuria		X	X	
Proteinuria		X	X	
Hypertension	X	X		
Henoch-Schonlein purpura/HUS	X			
Acute and chronic renal failure				X
Metab derangements/fluid & electrolytes		X		
Acid Base				X
NEUROLOGY				
Complete neurologic exam			X	X
Headaches	X		X	
Seizures	X	X		
Guillian-Barre/ADEM			X	X
Neurocutaneous disorders		X		X
Hypotonic infant/developmental delay	X	X		
Microcephaly/Macrocephaly	X			
NEONATOLOGY				
Prematurity/respiratory distress syndrome	X			X
Meconium aspiration				X
Pulmonary hypertension		X		X
IVH/HIE				X
Abdominal distention in the neonate				X
Care of NICU grad/ complications of NICU		X	X	
OPHTHALMOLOGY				
Red eye		X		
Orbit/lid/lash abnormalities	X		X	
ORTHOPAEDICS				
SCFE/LCP		X		
DDH			X	
Scoliosis			X	
Rotational deformities				X
Preparticipation physical/steroids	X	X	X	

OTOLARYNGOLOGY				
Otitis media	X	X	X	
Cleft lip/palate			X	
Foreign body	X	X		
Obstructive sleep apnea/sleep disorders			X	
Stridor	X	X		
Hearing Loss	X			
PULMONARY MEDICINE				
Obstructive sleep apnea			X	
Cystic fibrosis	X			
Chronic lung disease		X	X	
PFTs/ABGs		X		
Chronic cough		X	X	
Wheezing		X	X	
RADIOLOGY				
Abdomen		X	X	
Chest	X			
Musculoskeletal	X			
Neuro	X			
RHEUMATOLOGY				
JIA	X	X		
SLE			X	X
JDM				X
ARTHRITIS/ARTHRALGIA	X	X	X	
UROLOGY				
Urologic Emergencies	X			
Circumcision		X		