

NAME OF ROTATION: Quality Improvement- Float

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LOCATION: Children’s Healthcare of Atlanta at Hughes- Spalding
35 Jesse Hill Jr. Dr. SE
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1001 Johnson Ferry Rd NE
Atlanta, GA 30342
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TRAINING LEVEL: PGY-3

LENGTH OF ROTATION: 1 month

COURSE DESCRIPTION:

The inpatient rotation is designed to prepare pediatric residents to become community physicians with the appropriate knowledge and skills to care for hospitalized patients. The resident will become competent in evaluating and caring for children who require hospitalization under general pediatrics. The resident will learn how to determine admission parameters for ill patients, perform the initial assessment, appropriately and adequately treat patients and plan for discharge and follow up. The course will stress professional competencies, technical and procedural skills and health supervision. Residents will understand inpatient health care services in their cultural, ethnic and community context. Residents will cover both inpatient services at CHOA at Hughes- Spalding and Scottish Rite when senior residents and intern are post call and in clinic. In addition, residents will develop a quality improvement project. Residents will provide inpatient coverage at CHOA-Hughes- Spalding and Scottish Rite for inpatient residents who are post call and in clinic.

GOAL, OBJECTIVES, AND CORE COMPETENCIES:

GOAL 1: Quality Improvement. Understand the importance of and how to use quality improvement methods to monitor and improve the health care that one provides to children.

Objective 1.1: Explain the role of local and national regulatory or accreditation programs in monitoring quality of care in hospital- and office-based settings (state and local departments of health, managed care organizations, JCAHO, NCQA, CLIA).

Objective 1.2: Discuss tools used to assess the quality of pediatric practice (e.g., medical and functional health outcomes, patient satisfaction, health care costs).

Objective 1.3: Describe the role of standards such as HEDIS measures in setting benchmarks for children's health care services.

Objective 1.4: Identify and evaluate the literature defining best practices in quality assurance.

Objective 1.5: Analyze in one's own practice the factors that facilitate or inhibit the delivery of high-quality, cost-effective care for children (e.g., access to care, office management, medical record-keeping).

Objective 1.6: Review patient satisfaction reports and use them to identify areas for improvement within one's practice.

Objective 1.7: Practice continuous quality improvement (CQI) in one's practice, including:

1. Use the structure, process, and outcomes framework to categorize quality assessment measures.
2. Develop a CQI plan using the Plan-Do-Check-Act paradigm.
3. Collect and analyze data to identify changes that might decrease unwanted variation in the outcomes of care.
4. Implement these changes in one's practice, and plan for periodic reappraisals.

Objective 1.8: Balance cost and quality in the medical decision-making process.

GOAL 2: Understand the continuum of care for children with acute illnesses, from initial presentation, through acute hospital care, to discharge planning, home health services as appropriate, and follow up with the primary care physician (PGY-1 except where noted).

Objective 2.1: The resident will become well versed in providing care across the full continuum of services, which include:

1. Presentation of acute illness either by phone, clinic, or emergency department
2. Decision by emergency clinicians to admit to the hospital
3. Inpatient acute care
4. Potential transfer to PICU
5. Discharge planning
6. Follow up care including home health services and follow up with the primary physician

Objective 2.2: The resident will understand and be able to discuss the impact of a child's illness on the psychosocial and financial ramifications of the family unit.

GOAL 3: Understand how to assess and manage signs and symptoms, which typically present during the acute phase of illness (PGY-1 except where noted).

Objective 3.1: The resident will be able to perform a history, physical examination and formulate a differential diagnosis for the following signs and symptoms:

1. General conditions such as poor weight gain, fever without a focus, constitutional symptoms
2. Cardiovascular conditions such as hypertension, syncope, murmurs
3. Dermatologic conditions including typical rashes, petechiae, purpura, ecchymoses, urticaria
4. HEENT conditions including minor trauma, abnormalities of the eyes, neck, ears, nose and throat disorders
5. Endocrine conditions including, polydipsia, polyphagia, polyuria, behavior changes, weight changes, menstrual irregularity
6. GI nutritional and fluid imbalances consisting of diarrhea, emesis/regurgitation, dehydration, inadequate fluid intake, dysphagia, abdominal pain and masses, hematemesis, rectal bleeding, jaundice, and ascites
7. GU abnormalities including genital trauma, sexual assault, pelvic pain, abnormal vaginal bleeding
8. Hematologic and oncologic conditions including pallor, abnormal bleeding, lymphadenopathy, hepatosplenomegaly

9. Musculoskeletal conditions including soft tissue and bone trauma, arthritis, arthralgia, and limb pain
10. Neurologic conditions including seizures, headache, delirium, lethargy, weakness, ataxia, altered mental status, vertigo
11. Psychiatric conditions including child abuse and neglect (PGY-1) psychosis, attempted suicide, depression, conversion symptoms, (PGY-2)
12. Respiratory conditions including increased work of breathing, cyanosis, apnea, dyspnea, tachypnea, wheezing, stridor, cough, hemoptysis, chest pain, respiratory failure

GOAL 4: Understand how to assess and manage common childhood conditions typically seen in the in-patient setting (PGY-1).

Objective 4.1: The resident will be able to discuss the criteria for admission to the in-patient service (and transfer to a higher level of care), formulate a differential diagnosis and treatment plan, provide patient education and correlate discharge planning for the following conditions:

1. General conditions such as failure to thrive and fever of unknown origin
2. Allergy and immunological conditions such as asthma, drug allergies and reactions
3. Endocrine disorders such as type I and type II diabetes mellitus, hyperthyroidism, hypothyroidism
4. GI, nutritional, and fluid abnormalities including gastroenteritis, electrolyte disturbances, acid-base disorders, and gastroesophageal reflux
5. GU abnormalities including pyelonephritis, glomerulonephritis, nephrotic and nephritic syndromes
6. Hematologic and oncologic conditions including neutropenia, sickle cell disease, thrombocytopenia, common malignancies
7. Infectious diseases such as cellulitis, periorbital and orbital cellulitis, viral croup, osteomyelitis, PID, sepsis, bacteremia, AIDS, and septic arthritis
8. Toxicology such as common drugs seen in poisonings or overdose
9. Neurologic conditions such as seizures and developmental delay
10. Respiratory disorders such as apnea, airway obstruction, cystic fibrosis, pneumonia

GOAL 5: Understand the limitations, indications, and interpretation of common laboratory tests and imaging procedures commonly utilized in the in-patient setting (PGY-1).

Objective 5.1: The resident will be able to explain the indications, limitations, interpret, and discuss the therapeutic options for the following laboratory tests.

1. CBC with differential, platelet count, indices
2. Blood chemistry
3. Renal function test
4. Liver studies
5. Serologic tests for infection
6. CRP, ESR
7. Drug levels
8. Coagulation studies
9. Arterial, capillary, and venous blood gases
10. Cultures
11. Urinalysis
12. CSF analysis
13. Gram stain
14. Stool studies
15. Chest x-ray
16. Abdominal films
17. Laternal neck films

GOAL 6: Understand the application of physiologic monitoring and special technology and treatment in the general in-patient setting (PGY-1).

Objective 6.1: The resident will be able to list techniques appropriate for clinical setting, discuss indications, limitations, and interpret results for common types of monitoring including body temperature, cardiac, blood pressure and respiratory monitoring, and pulse oximetry.

Objective 6.2: The resident will be able to participate in the daily care of children who require technologic support, parenteral hyperalimentation or enteral feedings as well as arrange for at home care.

GOAL 7: Develop a logical and appropriate clinical approach to the care of hospitalized children (PGY-1).

Objective 7.1: The resident will be able to apply the principles of decision making and problem solving in the care of hospitalized children.

Objective 7.2: The resident will learn to recognize his/her own tolerance for stress and ask for assistance as appropriate.

Objective 7.3: The resident will at all times act responsibly and adhere to the highest standard of ethical conduct.

Objective 7.4: The resident will actively seek information needed for patient care and at all times practice evidenced based medicine.

Objective 7.5: The resident will maintain a comprehensive problem list and prioritize as appropriate.

Objective 7.6: The resident will be aware of and adhere to the quality control and quality improvement process.

GOAL 8: Understand how to function as a part of an interdisciplinary team on a general pediatric ward as the primary care provider (PGY-1 except where noted).

Objective 8.1: The resident will communicate effectively with fellow residents, attendings, consultants, nurses, ancillary staff, and referring physicians.

Objective 8.2: The resident will function effectively as a team player.

Objective 8.3: The resident will communicate effectively with the primary care provider in order to facilitate continuity of care and appropriate out patient follow up.

Objective 8.4: The resident will communicate often and effectively with the patient and family to provide support, education, and referral for outside financial or counseling assistance when needed.

Objective 8.5: The resident will function effectively as the consulting physician when requested by other providers.

Objective 8.6: The resident will be able to work effectively with the managed care case managers to optimize health outcomes.

Objective 8.7: The resident coordinate the care team and supervise the care of the patients (with consultation of the attending) assigned to the team of fellow residents, consultants, nurses, ancillary staff, and referring physicians (PGY-2-3).

GOAL 9: Understand how to provide sensitive support to patients and families of children with acute illness and arrange for on going services upon discharge (PGY-1).

Objective 9.1: The resident will demonstrate an awareness of the problems involved in the care of children with multiple problems or chronic illnesses.

Objective 9.2: The resident will demonstrate sensitivity and skills in dealing with death and dying in the hospital setting.

Objective 9.3: The resident will provide support services and outside referrals to families in need.

Objective 9.4: The resident will identify problems and risk factors in the child and the family including beyond the scope of the immediate hospital admission.

Objective 9.5: The resident will demonstrate sensitivity to the family with special attention and consideration for cultural, ethnic, and, religious differences.

GOAL 10: Understand key concepts of cost control, billing, and reimbursement in the hospital inpatient setting (PGY-2-3).

Objective 10.1: The resident will demonstrate an awareness and appreciation for common mechanisms of inpatient cost control in managed care settings including preauthorization and discharge planning.

Objective 10.2: The resident will understand and be considerate of the specific financial circumstances of each family and refer for to social services when appropriate.

GOAL 11: Maintain accurate, timely, and legally appropriate medical records in the in-patient setting (PGY-1-3).

Objective 11.1: The resident will maintain daily notes, which clearly and legibly document the patient's progress and plan.

Objective 11.2: The resident will prepare appropriate discharge summaries and off service notes.

COMPETENCIES:

Demonstrate high standards of professional competence while working with patients (with condition/in setting). (For details see Pediatric Competencies.)

Competency 1: Patient Care. Provide family-centered patient care that is development- and age-appropriate, compassionate, and effective for the treatment of health problems and the promotion of health.

1.1: Use a logical and appropriate clinical approach to the care of patients [with condition/in setting], applying principles of evidence-based decision-making and problem-solving.

1.2: Provide sensitive support to patients and their families [with condition/in setting].

1.3: Provide effective preventive health care and anticipatory guidance to patients and families [with condition/in setting].

Competency 2: Medical Knowledge. Understand the scope of established and evolving biomedical, clinical, epidemiological and social-behavioral knowledge needed by a pediatrician; demonstrate the ability to acquire, critically interpret and apply this knowledge in patient care.

2.1: Demonstrate a commitment to acquiring the knowledge needed for care of children [with condition/in setting].

2.2: Know and/or access medical information efficiently, evaluate it critically, and apply it appropriately to the care of patients [with condition/in setting].

Competency 3: Interpersonal Skills and Communication. Demonstrate interpersonal and communication skills that result in information exchange and partnering with patients, their families and professional associates.

3.1: Provide effective patient education, including reassurance, for conditions common to [condition/setting].

3.2: Communicate effectively with physicians, other health professionals, and health-related agencies to create and sustain information exchange and teamwork for patient care.

3.3: Develop effective strategies for teaching students, colleagues and other professionals.

3.4: Maintain accurate, legible, timely and legally appropriate medical records in this clinical setting.

Competency 4: Practice-based Learning and Improvement. Demonstrate knowledge, skills and attitudes needed for continuous self-assessment, using scientific methods and evidence to investigate, evaluate, and improve one's patient care practice.

4.1: Identify standardized guidelines for diagnosis and treatment of conditions common to [condition/setting], and adapt them to the individual needs of specific patients.

4.2: Work with health care team members to assess, coordinate, and improve patient care for patients [with condition/in setting].

4.3: Establish an individual learning plan, systematically organize relevant information resources for future reference, and plan for continuing acquisition of knowledge and skills.

Competency 5: Professionalism. Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles and sensitivity to diversity.

5.1: Demonstrate personal accountability to the well being of patients (e.g., following up on lab results, writing comprehensive notes, and seeking answers to patient care questions).

5.2: Demonstrate a commitment to professional behavior in interactions with staff and professional colleagues.

5.3: Adhere to ethical and legal principles, and be sensitive to diversity.

Competency 6: Systems-based Practice. Understand how to practice high-quality health care and advocate for patients within the context of the health care system.

6.1: Identify key aspects of health care systems (e.g., public and private insurance) as they apply to patients [with condition/in setting], such as the role of the primary care provider and consultant in decision-making, referral and coordination of care.

6.2: Demonstrate sensitivity to the costs of clinical care for patients [with condition/in setting], and take steps to minimize costs without compromising quality.

6.3: Recognize and advocate for families who need assistance to deal with system complexities, such as lack of insurance, multiple medication refills, multiple appointments with long transport times, or inconvenient hours of service.

6.4: Recognize one's limits and those of the system; take steps to avoid medical errors.

PROCEDURES:

Technical and therapeutic procedures. Describe the following procedures, including how they work and when they should be used; competently perform those commonly used by the pediatrician in practice.

- Anesthesia/analgesia: pain management
- Arterial puncture
- Bladder: catheterization
- Central line: use/care
- Chest physiotherapy
- Gastric tube placement (OG/NG)
- Gastrostomy tube replacement
- Intravenous line placement
- Lumbar puncture
- Medication delivery: IM/SC/ID
- Medication delivery: inhaled
- Medication delivery: IV
- Medication delivery: rectal
- PPD: placement
- Pulmonary function tests: peak flow meter

- Pulmonary function tests: spirometry
- Pulse oximeter: placement
- Rectal swab
- Sterile technique
- Suctioning: nares
- Suctioning: oral pharynx
- Suctioning: tracheostomy
- Tracheostomy tube: replacement
- Venipuncture

Diagnostic and screening procedures. Describe the following tests or procedures, including how they work and when they should be used; competently perform those commonly used by the pediatrician in practice.

- ECG: emergency interpretation
- ECG: perform
- Electroencephalogram (EEG)
- pH probe (Tuttle test)
- PPD: interpretation
- Monitoring interpretation: cardiac
- Monitoring interpretation: Holter
- Monitoring interpretation: pulse oximetry
- Monitoring interpretation: respiratory
- Pulmonary function tests: interpretation
- Radiologic interpretation: abdominal ultrasound
- Radiologic interpretation: abdominal X-ray
- Radiologic interpretation: chest X-ray
- Radiologic interpretation: CT of head
- Radiologic interpretation: extremity X-ray
- Radiologic interpretation: GI contrast study
- Radiologic interpretation: MRI of head
- Radiologic interpretation: nuclear medicine GI scanning
- Radiologic interpretation: renal ultrasound
- Radiologic interpretation: skeletal X-ray (incl. abuse)
- Radiologic interpretation: skull film for fracture
- Radiologic interpretation: sinus films
- Radiologic interpretation: voiding cystourethrogram

Source. Kittredge, D., Baldwin, C. D., Bar-on, M. E., Beach, P. S., Trimm, R. F. (Eds.). (2004). APA Educational Guidelines for Pediatric Residency. Ambulatory Pediatric Association Website. Available online: www.ambpeds.org/egweb. [Accessed 07/27/2009]. Project to develop this website was funded by the Josiah Macy, Jr. Foundation 2002-2005.

SCHEDULE:

Residents will attend weekly assigned continuity clinic. Residents will provide coverage while other inpatient residents are in clinic and post call. Residents are required to attend all Grand Rounds, weekly didactic lectures, resident meetings, and participate in the regularly scheduled calls. Call is every 12th night. Residents will give a written and oral presentation at the end of the rotation.

DIDACTIC SESSIONS:

To be determined by Morehouse teaching attending and SRPAC service attending.

EVALUATION:

The preceptor and resident will complete evaluation forms on the six core competencies via electronic evaluation form.

REFERENCES:

- Nelson’s Textbook of Pediatrics
- Oski’s Practice and Principles of Pediatrics
- Pediatrics in Review