Inpatient Family Medicine Rotation Educational Goals & Objectives

Inpatient Family Medicine Rotation will provide the resident with an opportunity to evaluate and manage patients with common acute medical conditions. Training will focus not only on clinical care issues across the lifespan, but also on coordinating patient care with non-physician providers, subspecialists, and allied health professionals; on transitions of patient care; and on the spectrum of leadership, cost, quality and performance activities within the purview of Hospital Medicine.

Faculty will facilitate learning in the 6 core competencies as follows:

Patient Care and Procedural Skills

I. All residents must be able to provide compassionate, culturally-sensitive direct care for acutely ill patients.
- PGY2s should seek directed and appropriate specialty consultation when necessary to further patient care.
- PGY3s should supervise and ensure seamless transitions of care within the hospital and at discharge.

II. Residents will demonstrate the ability to take a symptom-driven history and perform a focused physical exam.
- PGY1s should be able to differentiate ill from stable patients and appreciate abnormal physical findings, particularly abnormal heart and lung sounds, focal neurologic abnormalities, and rashes.
- PGY2s should be able to collect complex historical information from electronic and/or outside records, elicit a more thorough history, and detect subtle findings, such as a grade I-II murmur, organomegaly, and lymphadenopathy.
- PGY3s should be able to independently obtain a complete history, use physical exam maneuvers to elicit physical findings, and understand the sensitivity and specificity of physical findings.

III. For procedural competence, the focus for resident education is on the following:
- understanding the indications and contraindications of procedures
- recognizing and managing complications
- pain management
- sterile technique
- specimen handling
- interpretation of results
- requirements and knowledge to obtain informed consent

During the hospital medicine rotation, residents will focus on the following procedures as permitted by case mix:

Know, Understand, and Explain					**Perform Safely and Competently**
Procedure	**Indications; contraindications; recognition & management of complications; pain management; sterile technique**	**Specimen Handling**	**Interpretation of Results**	**Requirements & Knowledge to Obtain Informed Consent**	
PGY1					
Abdominal paracentesis	X	X	X	X	
ACLS	X	n/a	n/a	n/a	x
Arterial line	X	n/a	X	X	
Arthrocentesis	X	X	X	X	
Central line	X	X	X	X	
Drawing venous blood	X	X	X	n/a	x
Drawing arterial blood	X	X	X	X	x
EKG	X	n/a	X	n/a	
I&D abscess	X	X	X	X	
Lumbar puncture	X	X	X	X	
Nasogastric intubation	X	X	X	X	
Placing a peripheral venous line	X	n/a	n/a	n/a	x
Pulmonary artery catheter placement	X	n/a	X	X	
Thoracentesis	X	X	X	X	

- PGY2 and PGY3 residents will build on skills learned during the PGY1 year.
- PGY2s are also encouraged to develop skills in the use of noninvasive ventilation.
- PGY3s are also encouraged to develop skills in the use of ultrasound to facilitate the performance of clinical procedures (e.g. thoracentesis) and/or to supplement clinical judgment (volume assessment, EF).

- Residents who wish to pursue additional procedural competencies, such as abdominal paracentesis, central line placement, lumbar puncture, thoracentesis, intubation, and other procedures are encouraged to work with faculty to ensure they have adequate opportunity to acquire the skills to safely practice those procedures independently.

In addition, residents will be able to counsel patients and/or families regarding indications and contraindications the following procedures:

- PGY1s: acute hemodialysis, noninvasive and mechanical ventilation, PEG placement, and transfusion.
- PGY2s: introduction of palliative care and hospice
- PGY3s: independently counsel patients on the above issues in the setting of complex socio-medical circumstances, such as the issue of PEG placement in demented patients, or mechanical ventilation in the setting of end-stage systemic illness.

Medical Knowledge

I. PGY1s will develop an understanding of the pathophysiology and approach to common complaints in hospitalized patients, such as:
- Acute abdominal pain
- Altered mental status
- Chest pain
- Cough and Dyspnea
- Diarrhea
- Edema
- Electrolyte abnormalities
- Fever
- Gastrointestinal bleeding
- Hypertensive urgency
- Rash
- Syncope
- Weakness
- Weight loss

PGY2s should be able to incorporate this information into the context of past medical history and risk factors to generate a differential diagnosis and a more thorough plan of care.

PGY3s should be able to understand statistical concepts such as pretest probability, number needed to treat, etc. and their effect on diagnostic workup and treatment. PGY3s should be able to independently manage hospitalized patients with evidence-based therapies, including patients with the following illnesses:
- Acid-base and electrolyte abnormalities
- Acute renal failure
- Asthma exacerbation
- Cellulitis

- CHF
- Cirrhosis and liver failure
- Common arrythmias
- COPD exacerbation
- Diabetes management
- Deep venous thrombosis and pulmonary embolus
- Hepatitis
- NSTEMI
- Pancreatitis
- Perioperative care
- Pneumonia, community-acquired and health-care associated
- Seizure
- Stroke

II. Residents will become knowledgeable in the following issues pertaining to hospital care:

- ACLS protocols (all residents)
- Enteral and parenteral nutrition and PEG tube placement (PGY2)
- National guidelines for prevention of catheter-associated blood stream infections, deep venous thrombosis, and stress ulcer prophylaxis. (PGY2)
- Options available in offering palliative care versus hospice (PGY3)

III. Residents will be able to understand the indications for ordering and interpretation of results from laboratory and diagnostic studies, including:

For PGY1s:

- Serologies and chemistries
- Arterial blood gas interpretation
- Analysis of sputum
- Chest and abdominal radiographs
- Culture results
- Echocardiogram
- EKGs and continuous EKG tracings
- NT-pro-BNP

For PGY2s

- Interpretations of pulmonary function tests
- Analysis of cerebrospinal, peritoneal, and pleural fluids
- Computed tomography and magnetic resonance imaging of head, chest and abdomen

For PGY3s, independently planning diagnostic evaluation and appropriate therapeutic interventions based on test results.

IV. All residents will be fully trained in treatment and infection control protocols and procedures (e.g. personal protective equipment [PPE]) and trained clinically to properly recognize and care for COVID-19 patients.

Practice-Based Learning and Improvement

I. All residents should be able to access current clinical practice guidelines from the Society of Hospital Medicine, journals, and other sources to apply evidence-based strategies to patient care.
II. PGY2s should develop skills in evaluating studies in published literature, through Journal Club and independent study.
III. All residents should learn to function as part of a team, including the hospitalist, nurse, pharmacist, and dietician, and social worker to optimize patient care, with PGY3s assuming a leadership role.
IV. All residents should respond with positive changes to feedback from members of the health care team.

Interpersonal and Communication Skills

I. PGY1s must demonstrate written, electronic and verbal communication skills that facilitate the timely and effective exchange of information within the system.
II. PGY2s must also demonstrate interpersonal skills that facilitate collaboration with patients, their families, and other health professionals.
III. PGY3s should demonstrate leadership skills to build consensus and coordinate a multidisciplinary approach to patient care.
IV. PGY3s must become proficient in managing social dynamics, including identifying the power of attorney or surrogate decision maker, resolving conflict among family members with disparate wishes, and patient advocacy.

Professionalism

I. All residents must demonstrate strong commitment to carrying out professional responsibilities as reflected in their conduct, ethical behavior, attire, interactions with colleagues and community, and devotion to patient care.
II. PGY1s should be able to educate patients and their families in a manner respectful of gender, age, culture, race, religion, disabilities, national origin, socioeconomic status, and sexual orientation on choices regarding their care.
III. PGY2s should be able to counsel patients and families on diagnostic and treatment decisions and on use of palliative care and hospice in a manner respectful of cultural and religious beliefs.
IV. PGY3s should be able to provide constructive criticism and feedback to more junior members of the team.

Systems-Based Practice

I. PGY1s must have a basic understanding that their diagnostic and treatment decisions involve cost and risk and affect quality of care.
II. PGY2s must be able to discuss alternative care strategies and the cost and risks involved and articulate current quality issues in Hospital Medicine.

III. PGY3s should understand high value care measures when evaluating and treating patients as well as the impact of insurance status on patient care and discharge options.

IV. PGY3s must demonstrate an awareness of and responsiveness to established quality measures, risk management strategies, and cost of care within our system.

Teaching Methods

I. Supervised patient care in the hospital

- Residents will initially be directly observed with patients, to facilitate the acquisition of excellent history taking, physical exam, and procedural skills.
- As residents become more proficient, they will interact independently with patients and present cases to faculty.
    - For PGY1s, initial emphasis will be on diagnosis and basic management.
    - For more senior residents, focus will be on medical decision-making, and residents will work with supervising physicians to finalize a care plan.

II. Research

- Outcomes research project once during residency, to be supervised faculty. Results should be presented to hospital staff and if possible, as an abstract at a professional meeting.

III. Conferences

- Multidisciplinary rounds
- Specialty-specific didactics

IV. Independent study

- Journal and Textbook reading
    - *Understanding Patient Safety* (McGraw-Hill's Lange Series, 2017)
    - *Principles and Practice of Hospital Medicine* (McGraw-Hill, 2017)
    - *MKSAP*
    - Additional reading as recommended by the Hospitalist team
- Online educational resources
    - Up To Date
    - Clinical Key
    - Pain management and addiction: https://www.hhs.gov/opioids/treatment/overdose-response/index.html
    - Centers for Disease Control and Prevention www.CDC.gov
        - COVID-19: https://www.cdc.gov/coronavirus/2019-ncov/hcp/index.html
    - World Health Organization: How to put on and remove personal protective equipment (PPE) https://openwho.org/courses/IPC-PPE-EN

Evaluation

I. Case and procedure logs
II. Mini-CEX bedside evaluation tool
III. In-service Exam
IV. 360 Evaluation
V. Verbal mid-rotation individual feedback
VI. Attending written evaluation of resident at the end of the month based on rotation observations and chart review.

Rotation Structure

I. Residents should contact the lead hospitalist the day prior to determine start time and location.
II. Residents should spend the majority of their time admitting, rounding or consulting on patients in the hospital, with the exception of required conferences or patient-related time elsewhere in the hospital. Downtime should be used for self-study.
    - Rotations are a "hands-on" learning experience. Residents are the primary care providers for hospitalized patients and are expected to do a majority of the procedures. Direct observation of residents with real-time feedback is emphasized.
    - Case-based learning is very effective. Attendings should provide residents with patient-based questions to research and report back.
    - Residents may be asked to do a short presentation to the group on a pertinent topic.
    - When doing consults, ensure the resident understands the question asked and provides a concise answer.
III. Call and weekend responsibilities TBD by the hospitalist
    - Hours worked must be consistent with ACGME requirements and are subject to approval by the Program Director.
    - Residents have specialty-specific didactics and should be excused in a timely fashion to attend.