

Inpatient Curriculum Development

KIMBERLY L. MORRIS, MD
ASSOCIATE PROFESSOR AND CHIEF, DIVISION OF INTERNAL MEDICINE
DEPARTMENT OF MEDICINE
GRADUATE SCHOOL OF MEDICINE, KNOXVILLE



Getting Started

- ▶ Identify WHAT you hope TO TEACH
- ▶ Evaluate all RESOURCES
- ▶ Look closely at your LEARNER
- ▶ Determine outside INFLUENCERS
- ▶ Obtain BUY IN from other teachers
- ▶ Carefully ANALYSE what must change, ISTE scores, prior Board Pass Rates, Fellowship placement, Job placement

WHAT TO TEACH

- ▶ Inpatient rotation is different than a specific focused task
- ▶ Learners at varying stages of training, even in same academic year
- ▶ Learners with differing educational goals
- ▶ Each learner has different experience even though on same service
- ▶ Each learner requires varying degrees of autonomy

RESOURCES

- ▶ Accreditation Council for Graduate Medical Education
- ▶ Specialty Societies
- ▶ National Board of Medical Specialists
- ▶ Curriculum Development for Medical Education
 - ▶ Thomas, Kern, Hughes, Chen

LEARNER

- ▶ Today, learners are typically Millennials
- ▶ Motivated by messages:
 - ▶ “You are working with other bright and caring people”
- ▶ Desire immediate feedback
- ▶ Are very tech savvy
- ▶ Are accustomed to lots of sensory stimuli
- ▶ Embrace diversity

INFLUENCERS

Internal:

Program restraints
Financial restraints
Faculty interests

External:

Accreditation agencies
Patient volumes
Legal issues

BUY IN

- ▶ Often overlooked
- ▶ Entropy
- ▶ Most important to long term success
- ▶ Requires time commitment from leaders




ANALYZE

- ▶ Know clearly why change is needed and be able to articulate
- ▶ Determine specific, non-negotiable tasks
- ▶ Determine Overall desired outcome
- ▶ Determine how you will evaluate success



	PGY-1 Blocks	PGY-2 Blocks	PGY-3 Blocks	
MEDICINE MASTER SCHEDULE 2019 -2020	Inpatient Core			
	General Inpatient Medicine#	5 to 5.5	1.5 - 2	1.5
	Critical Care Medicine#	1	2-2.5	2
	Night Float#	0	4-5 weekends	1-1.5
	Specialty			
		Cardiology 1	Neurology 1 Pulmonary 1 Infectious Disease 1	Cardiology 1 Hematology/Oncology 1
	Ambulatory Medicine			
	4 to 4.5	4	4	
	2 week blocks in various specialty services	GI 1 Nephrology 1 Oncology 1 Emergency Medicine 1	Geriatric Trauma 1 Rheumatology 1 Cardiology 1 Hematology 1	Endocrinology 1 Allergy 1 REACT/Acute Care 2
	Other Core			
	0.5	0.5-1	0.5-1	
	Scholarly Activity	Community Med 0.5 Geriatrics 0.5	Community Med 0.5-1 Geriatrics 0.5	
	Electives			
0.5-1	0.5-1	1.5-2		
Outpatient				
Allergy Student Health Dermatology ENT Integrative Medicine Interventional Radiology Ophthalmology Orthopedics Rheumatology Sleep Urology Women's Health				
Inpatient				
Hospital Medicine				
Other				
Research, QI				

 INTERNAL MEDICINE CURRICULUM General Inpatient Medicine PGY-1 University of Tennessee Graduate School of Medicine	
ROTATION INFORMATION	
Name of Rotation	General Inpatient Medicine PGY-1
Faculty	Amy Barnett, MD Michael Carringer, MD (305-9081) Dan Ely, MD Kim Emmett, MD Ben Helms, DO (305-9081) J.J. Janoyan, DO (305-9081) Trey LaCharite, MD (305-9081) Kim Morris, MD Daphne Norwood, MD, MPH Nathaniel Piel, MD Mark Pierce, MD Janet Purkey, MD Nathan Smith, MD (305-9081)
Facility / Location	Teams 1 & 2: UTMCK, various floors Team 3: 8 East, Beds 816 – 830, UTMCK
Didactics	Daily 1130 – 1300 Department of Medicine Conference Room

	Monday	Tuesday	Wednesday	Thursday	Friday	Sat/Sun
0600-0830	Sign In Meeting /Work Rounds	Sign In Meeting /Work Rounds	Sign In Meeting /Work Rounds	Sign In Meeting /Work Rounds	Sign In Meeting /Work Rounds	Sign In Meeting /Work Rounds
0800-0900		Multidisciplinary CPC Grand Rounds Quarterly DOM/ M & M Grand Rounds				
0830-1115	Management Rounds	Rounds 0900	Management Rounds	Management Rounds	Management Rounds	Management Rounds
1130-12:10	Patient Safety & QI		Morning Report	Morning Report	Morning Report	
1220-1300	Noon Conference/ Journal Club	Noon Conference	Cardiology Conference	Noon Conference	Noon Conference/Resident Meeting/Quiz Bowl	
1300	Pt. Care/ Student Lecture/ Independent Learning	Pt. Care/ Student Lecture/ Independent Learning	Pt. Care/ Student Lecture/ Independent Learning	Pt. Care/ Student Lecture/ Independent Learning	Pt. Care/ Student Lecture/ Independent Learning	
1800	Sign Out Meeting	Sign Out Meeting	Sign Out Meeting	Sign Out Meeting	Sign Out Meeting	Sign Out Meeting

All residents and students will arrive 0600. Team 1 will meet in the 9E Medicine Conference room 0600 – 0615 for sign in. Team 2 will follow with sign in from 0615 until 0630. Team 3 members will meet at 0600 on 4 North UTH Conference Room for sign in.

Management rounds with the Attending will begin 0830. As possible, attending rounds should be completed by 1115 to allow resident attendance at teaching conferences.

Residents will have all patients seen, and be prepared for rounds with the Attending by 0830. Team 3 residents will have all notes completed in the EMR prior to attending rounds. The majority of notes by Teams 1 and 2 residents should be completed prior to attending rounds and finalized to reflect discussion and decisions made during rounds. PGY-1 residents and MSs will be assigned patients who were admitted overnight. They will be responsible for all details regarding these patients as if they completed the workup personally.

Senior residents should write a succinct addendum for all patients who are new to the team and on patients with new information, test results, change in patient status and significant updates or changes to the treatment plan. Senior residents will write a detailed admission note and progress note on all patients assigned to MS4s.

Team 3 residents will present their patients at 8E multidisciplinary rounds daily at 1330. This meeting will occur in the Physician/Pharmacy/Case Management conference room.

Teams will meet in the afternoon as needed for completion of teaching activities and rounds on new admissions as time permits.

Sign out rounds will occur at 1800.

Weekday admissions from 0800 -1700 to Teams 1 & 2 from the ED, UT IM Center and FIM will be directed to the On Call senior Resident who will distribute to PGY-1s and MSs based on capacity, complexity and other factors. In addition, senior residents from Teams 1 and 2 will communicate capacity to the UTH NP who will distribute unassigned patients to these teams. The On Call Team will be responsible for the CODE and Admission pagers.

Nighttime admissions will be managed by a Nightfloat Senior resident and PGY-1 from Teams 1 and 2. These individuals will respond to ED and CODE pagers, provide cross coverage for acute issues on Teams 1 & 2, and serve as liaison to the Attending on call. The Nightfloat resident will call the Attending on call for all patients

Related Conferences/Venues:

Morning Report, Noon Conference, Grand Rounds, Multidisciplinary CPC, Journal Club, Patient Safety, QI, Morbidity and Mortality, Quarterly Department of Medicine Meeting: DOM Conference Room.

Primary Goals:

This rotation will teach the resident to evaluate and initiate treatment for patients presenting for hospitalization from both the ambulatory setting and the Emergency Department. The PGY-1 Resident will learn to care for patients as they transition from the critical care setting to a regular inpatient care site. The resident will learn to communicate with all members of the health care team as well as the patient and their caregivers/family. The PGY-1 resident will learn to be responsible for both the overall coordination of patient care as well as the role of a consultant to various specialty services. The PGY-1 will be supervised by an upper level resident who will provide direct and immediately available indirect supervision as well as an attending physician who will provide direct, immediately available indirect, and/or oversight supervision. The PGY-1 will learn a structured process of patient hand off to insure both continuity of care and patient safety. This rotation will allow the opportunity for progressive responsibility for inpatient care. The senior resident will determine if follow-up after hospitalization can be made in a timely manner with the existing PCP or if patient will need follow-up appointment in the REACT clinic. The rotation will attempt to train residents to obtain competency in the following six core areas of internal medicine:

Patient Care

- To acquire accurate and relevant history from the patient in an efficient, prioritized manner.
- To obtain appropriate, verified data from secondary sources such as family members and outpatient pharmacy staff.
- To perform an accurate physical examination that is targeted to the patient's complaints and medical conditions.
- To accurately track important changes in the physical examination.
- To learn to synthesize all data, including interviews, examinations and laboratory data to identify the main clinical problem.
- To recognize clinical situations which need urgent medical care.
- To recognize when to seek additional guidance.
- To provide appropriate preventive care and to teach patient self-care.
- To manage patients with common disorders which are frequently seen in the inpatient setting.
- To learn how to manage the transition of patient care from the hospital to the outpatient setting.

Medical Knowledge

- To understand the pathophysiology and basic science for common medical conditions.
- To understand indications and basic interpretation of common testing used for diagnostic purposes.

Practice-Based Learning and Improvement

- To develop a willingness to learn from errors.
- To learn how to access references such as textbooks, computer-based resources, and the opinion of colleagues to improve one's knowledge on a continual basis.
- To identify clinical questions as they present in clinical practice.
- To respond in a welcoming, productive manner to feedback from all members of the healthcare team.
- To actively participate in teaching conferences.

Interpersonal and Communication Skills

- To provide timely and comprehensive verbal and written communication to patients/advocates.
- To learn to use both verbal and nonverbal skills to create rapport with patients and their families.
- To learn how to use an interpreter or devise appropriately.
- To learn to demonstrate sensitivity to differences in patients including race, culture, gender, sexual orientation, socioeconomic status, literacy and religious beliefs.
- To communicate effectively with other caregivers in order to maintain appropriate continuity during transitions of care.
- To deliver appropriate, succinct oral presentations.
- To communicate effectively with all members of the health care team.
- To request consultation in an effective manner and work in conjunction with a consultant for delivery of appropriate medical care.
- To provide legible, accurate, complete and timely written communication that meets acceptable medical standards.

Professionalism

- To document clinical information truthfully.
- To follow all formal policies of the health care system.
- To honestly acknowledge personal errors.
- To demonstrate empathy and compassion to all patients.
- To demonstrate a commitment to relieve pain and suffering.
- To respond promptly to all clinical responsibilities including calls and pages.
- To carry out timely interactions with patients, caregivers, and colleagues.
- To maintain professional appearance, demeanor and relationships.
- To recognize when it is necessary to advocate for patient needs.
- To treat all patients with dignity and respect.
- To maintain patient confidentiality.
- To recognize that disparities exist in health care among populations and they may impact health care of the patient.

Systems-Based Practice

- To understand how to utilize hospital-based systems to optimize care in a cost-effective manner.
- To appreciate the roles of various health care providers.
- To learn to work effectively as a team member to insure safe patient care.
- To recognize systems forces that increase the risk for patient care error.
- To learn to identify and learn from critical incidents and near misses of medical error.
- To learn approximate costs for common diagnostic and therapeutic tests and thus avoid unnecessary tests.

Primary Objectives:

- The resident will learn to obtain an appropriate history, to perform a directed physical examination and to initiate treatment of patients who present with common medical problems.
- Residents will learn to understand and utilize effective prophylactic therapy with anticoagulants.
- Residents will learn how to discuss end of life and withdrawal of care issues and how to discuss options regarding resuscitation with patients and their families.
- Residents will become proficient in many of the procedures commonly used in an inpatient setting.
- Residents will develop and refine their oral presentation skills.
- Residents will develop effective systems to review radiologic and pathologic results including postmortem examinations of their patients.
- Residents will enter all orders on patients on the General Inpatient Medicine Service when practically possible. Preferably, the PGY-1 will enter most of the orders. A fourth year medical student may enter orders on the patients they manage with the supervision of the upper level resident. Residents should discuss orders regarding major treatment decisions with the attending physician. Residents are expected to review all charts of patients on the service prior to sign-out so that consultant's recommendations and test results may be acted upon in a timely manner.

Supplemental References, Suggested Readings:

Current UpToDate, Inc. Wellesley, MA. Available in Preston Medical Library and 24 hour online access. <http://www.uptodate.com/index>

The following topics should be read:

Diagnostic Approach to Chest Pain in Adults
 Treatment of Community-acquired Pneumonia
 Management of exacerbation of Chronic Obstructive Pulmonary Disease.
 Diagnostic Approach to Abdominal Pain in Adults.
 Management of Moderate and Severe Alcohol Withdrawal Symptoms.
 Approach to the adult patient with Anemia.
 Approach to the Patient with Abnormal Liver Function Tests
 Criteria for the Diagnosis of Acute Myocardial Infarction
 Evaluation of Syncope in adults
 Management of Diabetes Mellitus in Hospitalized Patients.
 Evaluation of the patient with Vertigo
 Evaluation of the Patient with Suspected Heart Failure.
 Etiology and Evaluation of Hemoptysis in Adults.
 Ethical Considerations in Effective Pain Management at the end of life
 Pressure Ulcers: epidemiology, pathogenesis, clinical manifestations & staging
 Evaluation of Cognitive Impairment and Dementia.
 Approach to the Patient with Metabolic Acidosis.
 Evaluation of adults with Hyponatremia.
 Evaluation of the Patient with Hypokalemia.
 Diagnostic Approach to Hypercalcemia.
 Basic Principles of Electrocardiographic Interpretation
 Simple and Mixed Acid-Base Disorders

Cardiovascular Medicine Calculators:


Framingham 10 year risk of general cardiovascular disease in men.
Framingham 10 year risk of general cardiovascular disease in women.
Atrial Fibrillation CHADS 2 score for stroke risk.
TIMI score for unstable angina non ST elevation MI
TIMI score for ST elevation acute MI

Procedures:

The PGY-1 resident will learn the indications, contraindications and complications of procedural skills used commonly in the practice of General Inpatient Medicine. They may have the opportunity to perform procedures such as advanced cardiopulmonary resuscitation, central venous line placement, thoracentesis, abdominal paracentesis, nasogastric intubation, arthrocentesis of the knee, lumbar puncture, arterial puncture, and interpretation of electrocardiograms. In addition, they will have the opportunity to become more skilled in the interpretation of chest radiographs. The PGY-1 resident must have direct supervision of all procedures performed during the first six months of training and thereafter, until a sufficient number has been completed to demonstrate competency. The PGY-1 must be certified utilizing MedHub. The PGY-1 resident must complete all assignments on procedures consult and in the Simulation Center. When the PGY-1 resident has demonstrated competency, he/she will be allowed to supervise others who are performing the procedure.

Other Resources:

The PGY-1 resident will benefit from interactions with other members of the healthcare team including nursing staff, case managers, and physical, occupational, speech and respiratory therapists. They will also interact with attending physicians from both medical and surgical specialties as well as resident physicians from other disciplines. A clinical pharmacologist and pharmacy resident and student will participate in management rounds on most post-call days.

**Research Opportunities:**

PGY-1 residents are encouraged to develop case reports based on interesting patients seen on service. These may be submitted for publication or for oral or poster presentation at the Tennessee ACP meeting. Faculty members are available to assist with these efforts.

Method of Resident Evaluation:

Each resident is informally and continually evaluated during the course of the rotation. This evaluation will include global faculty evaluations, resident evaluations, nursing evaluations, and mini-CEX examinations (a minimum of four per year are expected). The Night Float senior resident will evaluate the PGY-1 cross coverage decisions, patient work ups, sign out and communication skills. A summative evaluation form will be completed by each attending physician via MedHub at the end of the rotation with direct verbal feedback given.

Method of Rotation Evaluation:

Residents are asked to provide direct feedback to the attending in an informal manner during the course of the rotation. They will complete a formal evaluation using MedHub at the end of the rotation. Cumulative feedback to the attending faculty member will be given during the annual faculty evaluation by the Departmental Chair in a non-identifying manner. The residents will participate in a once yearly program evaluation.

