

Perioperative Medicine
(Formerly General Internal Medicine Consult Month)
Inova Fairfax Medical Campus
Internal Medicine Residency Program
PGY 3 year

Course Directors:

Outpatient clinic - Dr. BobbieJean Sweitzer

Inpatient consult service - Dr. Thi Hoang

1. Educational Purpose and Goals

- a. To directly expose residents to aspects of hospital medicine not typically provided during an inpatient ward medicine month.
- b. To allow for a one on one experience in consultative medicine with experts in perioperative medicine in both the inpatient and outpatient settings
- c. To become familiar with basic tenets of perioperative medicine and anesthetic implications of common disorders to stratify risk the risk of surgery and anesthesia
- d. To introduce residents to the statutory regulations governing delivery of healthcare in the hospital setting and provide an overview of the forces that shape the current healthcare system.
- e. This will be a mandatory PGY 3 year.

2. Principal Teaching/Learning Methods

- a. *Supervised patient care:*
 - i. *Outpatient (Pre-Procedural Clinic):* Residents will encounter patients who are being evaluated in advance of elective surgery for pre-anesthesia assessment. After independent patient evaluation, resident will review the case with an attending anesthesiologist. Case review will include aspects of history-taking, physical examination findings, diagnostic reasoning, analysis of tests and management. The resident will also have opportunity to support mid-level providers in care of patients when physician assistance is required.
 - ii. *Inpatient (General Internal Medicine Consult Service):* Residents will encounter inpatients at Inova Fairfax Hospital who require medical consultation. After independent patient evaluation by the resident, faculty on the consult service will review new consult cases with the resident. Case review will include aspects of history-taking, physical examination findings, diagnostic reasoning, analysis of tests and management. The resident and hospitalist will see the patient together before or after this discussion. Residents will also see follow-up patients on the hospitalist consult service on a daily basis and integrated management and teaching rounds will occur with the consult service faculty for a minimum of 4.5 hours per week.

- iii. Validated scoring systems and topics such as likelihood ratios, number needed to treat, and prevention of medical illness in inpatients will be applied to each patient discussion in both supervised patient care settings
- b. *Didactics/Small group sessions*
 - i. Daily noon conference lecture
 - ii. Journal club
 - iii. Weekly Medicine Grand Rounds
 - iv. Discussion with faculty/informal presentation PRN
- c. *Brief (30 minutes, include Q&A period) lecture* on a perioperative medicine topic - to the perioperative clinic group. Will be included in resident portfolio.
- d. *Independent reading* – all residents are expected to read about patients they see in the during this rotation and familiarize themselves with common risk stratification tools that can be used in perioperative medicine (suggested resources below)

3. Educational Content

- a. Patient/Disease mix – Inpatients at Inova Fairfax Hospital on medical subspecialty, surgical, and non-medical specialty services as well as outpatients who have been referred to clinic for pre-operative assessment who are over 18 years old. Ethnically diverse patient population with a broad array of common and rare diseases.
- b. Learning venues
 - i. Inova Fairfax Hospital
 - ii. Inova Pre-procedural Evaluation Clinic
 - iii. Location of above meetings
- c. Structure – The rotation will be a four week block with the first two weeks dedicated to outpatient care in the pre-procedural clinic and the second two weeks on the inpatient internal medicine consult service. Residents will not be on call for this service, although they may be on disaster call for the program during this elective. There are no weekend duties. Residents will continue to attend their continuity clinic for a full day once a week during this rotation.

4. Principal Educational Materials

- a. At the beginning of the rotation, the program manager, course director and/or chief residents will provide materials, including this curriculum, and a resource list.

5. Methods of Evaluation

- a. At the end of the rotation, a core supervising faculty will complete a web-based evaluation (MedHub) and review it with the resident.
- b. The residents will also evaluate faculty and the rotation in an anonymous fashion.

6. Resource List

- a. Hospital Medicine (Wachter, Goldman, Hollander)

- b. CMS, JCAHO, AHRQ (especially Web M&M) websites
- c. Journal of Hospital Medicine
- d. Updates in Hospital Medicine (Yearly updates in Annals of Internal Medicine)
- e. ACC guidelines for peri-operative cardiac risk assessment in patients undergoing non-cardiac surgery
- f. SPAQI.org
- g. CHEST guidelines for Antithrombotic therapy in VTE.
- h. Textbook: Perioperative Assessment and Management by BobbieJean Sweitzer

Learning Venues

1. Supervised patient care/Attending rounds
2. Small group and Didactic sessions
3. Department of Medicine noon conferences
4. Independent reading

Methods of Evaluation

- A. Attending evaluation
- B. Direct observation with feedback
- C. Lecture evaluation

Progressive management expectations:

This rotation is limited to senior residents. All residents will be required to do this rotation during the course of their training.

Competency/Goal	Learning Venue	Methods of Evaluation
<i>Patient Care</i>		
Demonstrate ability to perform useful medical consultation for patients with chronic and acute medical problems including acute coronary syndrome, acute renal failure, alcohol and drug withdrawal, asthma, cardiac arrhythmia, diabetes mellitus, skin and soft tissue infections, COPD, CAP, CHF, delirium, GI bleed, HAP, sepsis, stroke, UTI, and venous thromboembolism	1,2,4	ABC
Perform a focused history and physical exam that includes relevant data needed to develop an anesthetic plan	1,2,4	ABC
Demonstrate ability to use evidence based practice while giving recommendations as a consulting physician	1,2,4	ABC
Demonstrate ability to utilize appropriate prophylaxis in medical consultation (VTE, stress ulcer, HCAP)	1,2,4	ABC

Demonstrate use of principles of pain management	1,2,4	ABC
Perform an efficient perioperative medical consultation – including assessment of need for cardiac testing prior to non-cardiac surgery in elective and urgent/non-urgent surgical settings	1,2,4	ABC
Utilize appropriate ancillary resources to perform efficient and safe discharge planning	1,2,4	ABC
Assist primary team in patient education and discharge medication reconciliation	1,2,4	ABC
<i>Medical Knowledge</i>		
Articulate pathophysiology, diagnostic strategies, and treatment of the disorders listed above (in goal #1 of patient care)	1,2,3,4	ABC
Demonstrate ability to interpret perioperative tests including ECG, laboratory data, cardiac testing, pulmonary function testing, and vascular testing	1,2,3,4	ABC
Demonstrate pharmacokinetics of commonly used medications and create management plan for these medications in the perioperative setting	1,2,3,4	ABC
Become familiar with approaches and relevance of nutrition in a patient who has or will receive surgery	1,2,3,4	ABC
Become familiar with concepts of quality improvement and patient safety	1,2,3,4	ABC
Learn about prevention of healthcare associated infections and common post-operative complications	1,2,3,4	ABC
<i>Professionalism</i>		
Observe doctor-patient confidentiality	1	AB
Evaluate patients for capacity to make medical decisions	1	AB
Apply ethical principles to inpatient care	1	AB
Treat team members, ancillary staff, and patients with respect	1	ABC
Actively engage in the academic process	1,2,3,4	ACDE
Attend and participate in all scheduled conferences and meetings	2,3	A,B
<i>Interpersonal and communication skills</i>		
Communicate effectively with ancillary staff and consulting physicians	1	AB
Communicate effectively with patients and families in straightforward and challenging encounters	1	AB

Provide recommendations in patient care that account for patient preferences based on both culture as well as relevant limitations in understanding or accessing appropriate patient care	1	AB
Choose an appropriate communication style for clinical situation (in-person, telephone, electronic etc.)	1	AB
<i>Practice Based Learning</i>		
Identify limitations in medical knowledge and appropriately ask colleagues, attendings, ancillary staff for guidance when needed	1,2,3,4	ABC
Identify missed assessment opportunities to advance patient care (ex. Cases canceled on day of) and reflect on how these could be improved	1,2,3,4	ABC
Actively search the literature for evidence based guidance in patient care	1,2,3,4	ABC
<i>Systems Based Learning</i>		
Be able to discuss the many systems involved in getting a patient from the pre-surgical clinic to the operating room at the scheduled time and date.	1,2,3,4	ABC
Discuss the systems-based implications of receiving testing at an institution but surgery at another	1,2,3,4	ABC
Discuss the implications of lack of adequate peri-operative testing on the overall healthcare system	1,2,3,4	ABC
Practice cost-effective, high value care in the determination of need for additional pre-operative testing as well as in management of routine postoperative monitoring and complications	1,2,3,4	ABC
Learn about causes of medical errors in the hospital	1,2,3,5	AC