

MEDICINE CONSULT SERVICE

I. Educational Purpose - An important skill for a general internist is to learn their role as consultant. This activity should include the care of hospitalized patients on surgical services, as well as the outpatient preoperative evaluation and management of medical conditions in pregnant women and in patients with psychiatric disease. As a consultant, the internist frequently has a central role in the overall management of the patients' medical care by coordinating sub specialists' recommendations and assuring long-term follow-up.

General internists should have an appreciation of the body of knowledge that is developed in consultative medicine. Most importantly is an understanding of the physiologic response to surgery and anesthesia, disease related and procedure related risk, prophylactic therapy to prevent perioperative problems, and postop medical complications. The general internist should also sufficiently understand the physiology of pregnancy and the categories of psychiatric disease and its pharmacologic treatment to manage medical problems in these patients effectively.

Given the broad nature of consultative medicine, the range of competencies in medical consultation varies little among practice settings. However, the extent and complexity of the role may be determined by the availability of surgical anesthesia, trauma/critical care, obstetric, psychiatric, and other specialists, including internal medicine sub specialists. Optimal consultative care requires skills that can be adapted to both office practices in a variety of hospital settings including outpatient and day surgery.

Since medical consultation is practiced at the interface of Internal Medicine and other specialties, it requires familiarity with those specialties, skill in synthesizing information, and appropriate effective communication with other consulting physicians, dentists, other health care workers, and families.

The common clinical presentations that will be seen during this rotation include the following:

- Evaluation of an abnormal result on a routine preoperative test.
- Assessment of a need for antibiotic prophylaxis for invasive procedures.
- Assessment of a need for anticoagulation as a prophylactic procedure.
- Assessment of a need for hemodynamic monitoring during surgery.
- Assessment of a need for transfer to medical service including a need for critical care monitoring.
- Assessment and management of preoperative risk.
- Medical problems arising during the postoperative recovery.
- Medical problems in psychiatric patients.
- Drug reactions and complications.

II. Learning Venue

A. Rotation Description - The Med Consult rotation is for senior residents only. This busy consult service that sees inpatients at both the VA and University Hospital involves a broad range of perioperative assessment and medical management on inpatient, Rehab and Psychiatric floors. There are an average of 1-5 consults/day. This is often one of the most fundamental rotations for residents to function as primary consultants with non-Medicine specialists. The Med consult resident will also attend an outpatient pre-op clinic one half day per week. In addition the Med consult residents will see any patients where a request for a Dermatology consult is called.

B. Teaching Methods.

1. Daily Attending rounds - The primary learning process during this rotation involves residents independently assessing all consults that have been called, formulating an opinion and plan and then presenting those findings to the attending. This is a one-on-one opportunity to work with an attending and is an important way to learn the nuances of preop risk assessment, postop management, and the interface of multiple specialties

with core medicine topics. In addition to reviewing new consults the resident and attending will conduct daily bedside rounds together on all follow-up cases. After seeing any patient for Dermatology consult the resident will contact with and meet with the Dermatology attending to review the case.

2. Outpatient pre-op clinic – On Tuesday mornings at UHCC Firm A the UH med consult resident will attend an outpatient pre-op clinic. Clinic begins at 10 am and residents are urged to be prompt. In this setting the resident will conduct pre-op evaluation of patients in an outpatient setting in anticipation of surgery. The resident will be supervised by a UHCC or hospitalist attending. This is another one-on-one opportunity to work with an attending to learn the nuances of preop risk assessment and recommendations. The Med consult resident may call the clinic the afternoon prior for the appointment schedule.

3. Expected reading – see link to case based modules (**Link**)

a. 'ACC/AHA Guideline Update for Our Perioperative Cardiovascular Evaluation for Non-Cardiac Surgery-Executive Summary', <http://circ.ahajournals.org/cgi/reprint/CIRCULATIONAHA.107.185700>

b. 'Up-To-Date under Medical Consultation'

c. Preoperative evaluation Module @ hopkinsilc.org

d. Corticosteroid Supplementation for Adrenal Insufficiency. JAMA 2002; 287: 236-240.

- For Dermatology references see the following online resources

<http://medstat.med.utah.edu/kw/derm/>

<http://telemedicine.org/stamford.htm>

<http://www.vh.org/adult/provider/dermatology/PietteDermatology/BasicDermatology.htm>

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<http://www.meddean.luc.edu/lumen/MedEd/medicine/dermatology/melton/atlas.htm>

<http://www.dermatlas.com/derm/>

4. Unique Learning Opportunities.

- Pre & post-operative interpretation of the EKGs.
- Perioperative use of pulmonary function testing and ABGs in risk assessment.
- Noninvasive and invasive assessment of venous thromboembolic disease pre- and postop.
- Noninvasive and invasive assessment of cardiac risks.

5. Mix of Diseases. Patients from the age of 18 and up on the Surgical, Psychiatric, or Rehab services are included in the patient characteristics. They are of all ethnicities and likely equally split male and female. The following general common categories of diseases are seen in the following list.

III. **Educational Content**

A. Preop evaluation of disease related risks from surgery.

- Acute and chronic renal failure
- Arrhythmias, conduction disturbances
- Cerebrovascular or other neurologic disorders
- Chronic obstructive pulmonary disease, asthma
- Congestive heart failure
- Coronary artery disease
- Diabetes mellitus
- Electrolyte disorders
- Hematologic and clotting disorders
- HIV infection
- Infectious disease
- Liver disease

- Obesity
- Psychiatric disease
- Rheumatologic disorders
- Substance abuse
- Thyroid disease
- Valvular heart disease
- B. Postoperative complications.
 - Acid base disorders
 - Acute neurologic disease
 - Acute renal failure
 - Adult respiratory distress syndrome
 - Alcohol withdrawal syndromes
 - Arrhythmia, cardiac arrest
 - Atelectasis pneumonia or aspiration
 - Chest pain, dyspnea
 - Delirium
 - Diabetes
 - Fever
 - Gastrointestinal dysfunction
 - Hematologic disorders, bleeding
 - Hypertension, hypotension
 - Jaundice, liver dysfunction
 - Postoperative pain
 - Sepsis, multiorgan failure
 - Thromboembolic disease
 - Transfusion reactions
 - Volume, tonicity, or electrolyte disorders
- C. Prevention of complications
 - Antibiotic prophylaxis (including for endocarditis)
 - Postoperative pulmonary complications
 - Reaction to contrast media
 - Stress related gastrointestinal mucosal disease
 - Thromboembolism
 - Transfusion associated disease
- D. Drug metabolism, reactions and interactions
- E. Medical complications of pregnancy
- F. Nutritional assessment
- G. Physiologic changes in the elderly

IV. Evaluations – All residents will be evaluated by their supervising attending using the online E-value system. Residents are encouraged to seek mid rotation verbal feedback. Non-medicine services, both physician and ancillary staff, are encouraged to submit online 'praise or concern' cards.

V. Rotation Specific Competencies.

- a. Patient care – Medical Consult rotation offers a unique opportunity to participate in the care of the patients with a subset of problems most commonly seen on surgical services. In addition, there is the opportunity to participate in complex pharmacologic recommendations often involving polypharmacy in psychiatric patients and the longer-term management of medical problems in patients on a Rehab service.
- b. Medical knowledge – This is often the first time that residents are exposed to the unique body of information about perioperative risk assessment and postoperative management of unique post surgical problems. A residents learning should be largely self-directed with reading from the recommended reading list and guidance from the medical attending.
- c. Professionalism – Medical Consult rotation allows the senior resident to develop professional relationships with surgical, psychiatric, and rehab colleagues and to function as primary advice giver for simple and complex medical issues in their patients.

- d. Interpersonal communication skills – Clear and direct medical advice is expected and mentored during this rotation in order to help residents develop a practice style that is collegial, friendly, and helpful to those calling consults.
- e. Practice based learning – link
- f. Systems based practice – link

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