

# Consultative Medicine Curriculum

## The Educational Purpose

The role of general internists as consultants had its roots in providing preoperative assessments for patients undergoing surgery. However, with increasing specialization within internal medicine, surgery specialties, subspecialties and the transformation of hospital care by hospitalists, medical consult services have taken on a new and larger role in the care of hospitalized patients. By some estimates, over 90% of Internal Medicine Hospitalists provide consultations on medical consult services. In addition, to the surgical services, hospitalists provide consultations for Psychiatry, Obstetrics and Gynecology and Emergency Room patients. The range of potential reasons for medical consultation demands a breadth of knowledge. Excellent interpersonal skills and professionalism are needed for effective communication between referring physician and consultant. Thorough understanding of systems resources and policies are required for efficient consultations that provide quality. Mastering these skills in the setting of busy hospitalist services provides a challenging educational experience for residents.

### *Patient Care*

**Goal #1:** Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

**Objective #1:** Residents must be able to gather essential and accurate patient information to assess patient concerns, with special attention to the following presentations:

Place a check mark indicating your achievement of the learning objective.

PGY-3	Coronary artery disease	Recent myocardial infarction
	COPD asthma	Congestive heart failure
	Valvular heart disease	Renal failure
	Liver failure	Diabetes mellitus
	Electrolyte disorders	Hematologic & clotting disorders
	HIV infection	Substance abuse
	Venous thromboembolic disease	Bleeding
	Delirium	Hypotension
	Hypertension	ARDS
	Post-operative pain	Cardiac arrest
	Acute renal failure	Aspiration
	Drug reaction syndromes	Chest pain
	Pneumonia	Fever
	Dyspnea	Stress-related gastrointestinal mucosal disease
	Pulmonary embolism	Hyperglycemia
	Hypoglycemia	Localized weakness
Edema		

Objective #2: Residents will be able to develop and carry out patient management plans by making informed decisions on diagnostic and therapeutic interventions, counseling and educating patients and their families, and preventing health problems or maintaining health based on patient information and preferences, up-to-date scientific evidence, and clinical judgment with special attention to the following illnesses or conditions:

**Place a check mark indicating your achievement of the learning objective.**

PGY-3		Residents will be able to perform pre-operative assessments to estimate the risk of peri-operative complications and manage abnormal results on routine preoperative testing.		
		Residents will be able to recognize and take measures to avoid preventable complications in high-risk patient populations.		
		Residents will be able to manage common presentations seen by internal medicine consultants.		
		Common Medical problems in the pregnant patient		Reactions to contrast media
		Causes of Upper and Lower Gastrointestinal Bleeding		Methods to reduce contrast-induced renal failure

Objective #3: Residents must competently perform and interpret the results of all diagnostic and therapeutic medical and invasive procedures considered essential after obtaining informed consent, with confidence and minimal discomfort to patients:

PGY-3		Residents must know when other subspecialty consultation for invasive testing and/or procedures is indicated.		Residents must understand the indications for pre-operative cardiac stress testing.
		Residents must be able to interpret EKGs		Residents must be able to interpret chest Xrays
		Residents must be able to interpret arterial blood gases		Residents must be able to interpret culture results

Objective #5: Residents must work effectively with other health care professionals including those from other disciplines, to provide patient-focused care.

PGY-3		Residents must be clear in making recommendations to those medical professionals to whom they are consulting
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### *Medical Knowledge*

Goal #2: Residents must demonstrate knowledge about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care.

Objective #1: Residents must demonstrate and investigatory and analytical thinking approach to clinical situations.

**Place a check mark indicating your achievement of the learning objectives below.**

PGY-3		Residents will assess the need for antibiotic prophylaxis consistent with current SCIP guidelines
		Residents will assess the need for anticoagulation as prophylaxis against thrombotic or thromboembolic complications
		Residents must effectively implement the ACC recommendations for pre-operative risk assessments in patients undergoing non-vascular surgeries

Objective #2: Residents must know and apply the basic and clinical supportive sciences applicable to Consultative Medicine with special attention to:

Place a check mark indicating your achievement of the learning objective.

PGY-3		Ischemic heart disease		Venous thromboembolism
		Delirium		Acute renal failure
		Nosocomial pneumonia		Wound infections
		Glycemic control in diabetes mellitus		Symptoms and Physiology of Normal Pregnancy
		Pharmacology of commonly abused drugs		Risk factors for healthcare-associated infections
		Pathophysiology of normal hemostasis and abnormal thromboembolism		

***Practice-Based Learning and Improvement***

Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.

Place a check mark indicating your achievement of the learning objectives below in the area of Consultative Medicine.

Objective #2: Residents must be able to use information technology to manage information, access on-line medical information; and support their own education.

PGY-3		Electronic Medical Records		Electronic resources at institutions
		Effectively to access Infection control policies on communicable diseases		Isolation policies and antibiograms

Objective #6: Residents must be able to facilitate the learning of students and other health care professionals.

PGY-3		Residents must learn strategies to inform and educate subspecialty attendings caring for patients with medical diseases in setting of acute surgical, obstetrical, and psychiatric diseases.		
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***Interpersonal and Communication Skills***

Residents must demonstrate interpersonal and communication skills that result in effective exchange of information and collaboration with patients, their families, and health professionals.

Place a check mark indicating your achievement of the learning objectives below in the area of Consultative Medicine.

PGY-3		Objective #4: Residents must maintain comprehensive, timely, and legible medical records.		
		Residents must provide clear, concise, accurate and timely written or dictated consults		

Objective #5: Residents must provide effective and professional consultation to other physicians and health care professionals.

PGY-3		Residents must accurately address the referring physicians		Understand the reason and context for the consult
		Know who is requesting the consult		Provide concise but complete consultations
		Provide evidence-based, data supported, specific recommendations		Follow-up the patient as appropriate unless only one time consultation requested
		Attempt personal communication with the referring physician		Teach with tact and without offending referring physician

### ***Professionalism***

Residents are expected to demonstrate behaviors that reflect a commitment to continuous professional development, ethical practice, an understanding and sensitivity to diversity and a responsible attitude toward their patients, their profession, and society.

Place a check mark indicating your achievement of the learning objectives below in the area of Consultative Medicine.

PGY-3	Objective #1: Residents must demonstrate respect, compassion, integrity, and altruism in relationships with patients, families, and colleagues.
	Residents must perform consultations in a timely manner appropriate to the acuity of the reason for the consult

### ***Systems Based Practice***

Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care as well as the ability to call effectively on other resources in the system to provide optimal health care.

Place a check mark indicating your achievement of the learning objectives below in the area of Consultative Medicine.

PGY-3	Objective #3: Residents must demonstrate the ability to use cost-conscious strategies which are evidence-based in prevention, diagnosis, and disease management.
	Residents must list and apply risk stratification criteria.
	Objective #4: Residents must demonstrate the ability to initiate, coordinate, and facilitate discharge planning through the use of other health care professionals and systems resources.
	Residents must become familiar with the various types of rehabilitation services and settings in which post-surgical patients will be referred.

## The Teaching Methods

- Daily work/teaching rounds with attending
- Completion of learning modules from Johns Hopkins
- Consultation Medicine Essentials at [www.jhcme.com/site/index.cfm](http://www.jhcme.com/site/index.cfm) on:
  - Perioperative Management of Anticoagulation
  - Venous Thromboembolism Prophylaxis
  - The Role of the Medical Consultant
  - Perioperative Cardiac Risk Assessment
  - Perioperative Cardiac Risk Management
  - Diagnosis and Management of Acute Mental Status Changes: Delirium
- Prepare presentation on resident-selected Consultative Medicine topic
- Participate in quality-improvement project

## Supervision of Patient Care

Resident will work directly with hospitalist rotating on Consultative Medicine service

## Consultative Medicine Reading List

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- 4) Koren, B.; Pastuszak, A.; Ito, S. "Drugs in Pregnancy". *N Eng J Med*. 1998;338(16):1128-1137.
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- 6) Morrison, R.S.; Chassin, M.R.; Siu, A.L. "The Medical Consultant's Role in Caring for Patients with Hip Fracture". *Ann Intern Med*. 1998;128:1010-1020.
- 7) Fleisher, L.A.; Eagle, K.A. "Clinical Practice. Lowering Cardiac Risk in Noncardiac Surgery". *New Engl J Med*. 2001;345(23):1677-82.
- 8) Simor, A.E. "Containing Methicillin-Resistant S Aureus. Surveillance, Control, and Treatment Methods". *Postgraduate Medicine*. 2001;110(4):43-8; quiz 11.
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- 10) Eagle, K.A., et al. "ACC/AHA Practice Guidelines ACC/AHA Guideline Update for Perioperative Cardiovascular Evaluation for Noncardiac Surgery—Executive Summary A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines". (Committee to Update the 1996 Guidelines on Perioperative Cardiovascular Evaluation for Noncardiac Surgery). *Circulation*. 2002;105:1257.
- 35) ACC/AHA 2007 Guidelines on Perioperative Cardiovascular Evaluation and Care for Noncardiac Surgery: A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Writing Committee to Revise the 2002 Guidelines on Perioperative Cardiovascular Evaluation for Noncardiac Surgery). *J Am Coll Cardiol*, 2007; 50:159-241.
- 11) Dewey, C.M.; Riley, W.J. "Have Diabetes, Will Travel". *Postgraduate Medicine*. 1999;105(2):111-3, 117-8, 124-6.
- 12) "Postoperative Management of the Diabetic Patient". *Medical Clinics of North America*. 2001;85(5):1213-28.
- 13) Hansen, W.F.; Yankowitz, J. "Pharmacologic Therapy for Medical Disorders During Pregnancy". *Clinical Obstetrics & Gynecology*. 2002;45(1):136-52.
- 14) Tan, K.S.; Thompson, N.C. "Asthma in Pregnancy". *American Journal of Medicine*. 2000;109(9):727-33.
- 14) American Diabetes Association. Hospital admission guidelines for diabetes mellitus. *Diab Care* 2004; 23 Supp 1:S103.
- 15) Hirsch, IB, Paauw, DS, Brunzell, J. Inpatient management of adults with diabetes. *Diabetes Care* 1995; 18:870.
- 16) Nasraway, SA Jr. Sitting on the horns of a dilemma: avoiding severe hypoglycemia while practicing tight glycemic control. *Crit Care Med* 2007; 35:2435.
- 17) AACE/ADA Task Froce on Inpatient Diabetes. American College of Endocrinology and American Diabetes Association consensus statement on inpatient diabetes and glycemic control. *Endocr Pract* 2006; 4:459.
- 18) Rady, MY, Johnson, DJ, Patel, BM, et al. Influence of individual characteristics on outcome of glycemic control in intensive care unit patients with or without diabetes mellitus. *Mayo Clin Proc* 2005; 80:1558.
- 19) Umpierrez, GE, Isaacs, SD, Bazargan, N, et al. Hyperglycemia: an independent marker of in-hospital mortality in patients with undiagnosed diabetes. *JClin Endocrinol Metab* 2002; 87:978.
- 20) Van den Berghe, G, Wouters P, Weekers F, et al. Intensive insulin therapy in critically ill patients. *N Engl J Med* 2001; 345:1359.
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- 22) Brunkhorst, FM, Engel, C, Bloos, F, et al. Intensive insulin therapy and pentastarch resuscitation in severe sepsis. *N Engl J Med* 2008; 358:125.
- 23) Antman, EM, Anbe, DT, Armstrong, PW, et al. ACC/AHA guidelines for the management of patients with ST-elevation myocardial infarction--executive summary: a report of the American College of Cardiology/American Heart Association Task Force
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- 26) Clement, S, Braithwaite, SS, Magee, MF, et al. Management of diabetes and hyperglycemia in hospitals. *Diabetes Care* 2004; 27:553.

- 27) Jacober, SJ, Sowers, JR. An update on perioperative management of diabetes. Arch Intern Med 1999; 159:2405.
- 28) Inzucchi, SE. Clinical practice. Management of hyperglycemia in the hospital setting. N Engl J Med 2006; 355:1903.
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- 35)The Seventh ACCP Conference on Antithrombotic and Thrombolytic Therapy: Evidence-Based Guidelines [CHEST 2004; 126(Supplement 3 pgs 338-499)]
- 36) ACC/AHA 2007 Guidelines on Perioperative Cardiovascular Evaluation and Care for Noncardiac Surgery: A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Writing Committee to Revise the 2002 Guidelines on Perioperative Cardiovascular Evaluation for Noncardiac Surgery) J Am Coll Cardiol, 2007; 50:159-241, doi:10.1016/j.jacc.2007.09.003 (Published online 27 September 2007).
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