

Medical Consultation

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A Basic Approach to Medical Consultation

The internist asked to “consult” on a patient is traditionally expected to assume the task of identifying and treating diseases outside the expertise or capabilities of the consulting physician. This commonly encompasses the areas of perioperative medicine, as well as assistance to health care professionals in specialties such as rehabilitative medicine, psychiatry, or neurology, where the overriding acute or chronic conditions of the patient frequently supercede the medical problem for which consultation is sought. Often, however, the coincident problems are so integral to the general health status of the patient that their separation is more of academic than practical value. Thus effective consultation requires cooperative collaboration between members of different specialties.

In the early 1980’s, Goldman, Lee and Rudd published the often-cited “10 Commandments of Consultation”, which effectively defined a practical standard for internal medicine consultation.¹ Consultants were advised to:

- 1) clarify the question
- 2) determine the urgency of the consultation
- 3) gather data independently rather than relying on that previously obtained
- 4) be brief and succinct
- 5) state the differential diagnosis concisely and be specific in recommendations
- 6) anticipate potential problems and provide options
- 7) honor the roles of other caregivers
- 8) teach with tact
- 9) maintain direct personal contact with the consulting physicians
- 10) follow up with periodic notes and, where appropriate, recommendations.

These clear suggestions notwithstanding, the benefits of consultative medicine in most settings have not been rigorously studied. Assessing the effectiveness of consultation has been based on measuring compliance with the recommendations of

the consultant rather than on patient outcomes. Studies revealed that compliance was best when recommendations²

- 1) numbered 5 or less
- 2) focused on the specific question of the consulting physician
- 3) concerned medication rather than diagnostic tests
- 4) required little additional work
- 5) were made in person and within 24 hours
- 6) were specific
- 7) involved consultant follow up.

Such findings have lead to conclusions that “consultations are requested principally for assistance in management rather than diagnosis.” and that “...recommendations peripheral to current patient care issues are unlikely to be implemented”.²

At least in the areas of perioperative risk stratification, significant measures have been codified for predicting cardiovascular outcomes in noncardiac surgeries, but their usefulness is limited by the need to extrapolate from one subgroup of surgical procedures to another.³ Others have begun to assess the benefits of consultation on patients with varying disease severity, on hospital lengths of stay, and on such indicators as adverse drug effects and blood transfusion. Thus compliance alone as a measure of the effectiveness of medical consultation is beginning to yield to true outcomes measures. A disciplined investigation of the role and effect of medical consultation on patient outcomes deserves attention to improve both patient care and cost-effectiveness.

The Content of the Consultation

While all physicians have a duty to seek consultation when confronted with problems beyond their expertise, the acceptance of a consultation referral by the internist implies certain additional duties.⁴ The consultation and its documentation should be carefully constructed to meet these duties and to avoid misunderstandings.

It should go without saying that the medical consultation begins with the history and physical. In keeping with the Goldman recommendations, once the clinical question and the purpose of the consultation has been clearly defined a careful assessment of the medical issues pertinent to this question should be undertaken. **Ascertain the**

urgency of the request and respond promptly. Same day service should be the standard. **A careful chart review and a focused history and physical are fundamental expectations of a medical consultation.** Depending on the circumstances, the consultation might focus on risk stratification, management of a specific problem, diagnosis of a complex set of clinical parameters, continuity of care, or some combination of these. **State your understanding of the purpose of the consultation in the note.** It is essential that the consultant understand the expectations of the requesting physician so that time is not wasted in providing the best possible service in the consultation. If the consultant finds issues of importance distinct from the original request by the consulting physician, these issues should be discussed directly with the consulting physician before being included in the consultation note. **The note should not be regarded as a substitute for directly and clearly communicating with the requesting physician.** Potentially controversial issues should be discussed directly prior to any inclusion in the consultation note. Management disagreements should be discussed privately. **Notes should never be critical or inflammatory.** While notes should be very specific in their recommendations, phrases like “patient is cleared for surgery”, or “medically cleared” should be avoided, as should “patient is not suitable for surgery”. Only surgeons and anesthesiologists decide if a patient is ready for surgery. The medical consultant’s task is to risk stratify and make recommendations to minimize perioperative complications, and it is important that he or she understand the limitations of data available to accomplish this. Assigning numerical values to risk or other potential outcomes is to be avoided. The data are insufficiently precise to warrant this, and it may be seen more literally than was intended. **Notes should make no implicit or explicit guarantees.** Follow up should be consistent and all encounters documented. When you are certain your services are no longer needed, **clearly sign off the case**, but always provide an invitation for re-consultation. Include a beeper or phone number.

Brevity is essential in consultation notes. It is not necessary to document every detail of an appropriate history and physical examination in most cases. Obviously, it is important to document the presence or absence of things pertinent to the question prompting consultation. Factors known to confer risk in the case of perioperative assessments (signs or symptoms suggestive of angina, aortic stenosis, congestive heart failure, etc.) should

always be noted. Consulting physicians are most interested in your recommendations, and will look there first when reading consultation notes. These should be *listed* in the beginning of the note, just after an opening statement defining the purpose of the consultation. Any written discussion should be clear, concise, and organized, but brief. **Always keep a copy of your original consultation notes for your own records.**

Evidence-based guidelines

Whenever possible, consultative opinions should be based on scientific evidence from well conducted, published studies. Examples of such studies include those that support prophylactic antimicrobials prior to certain types of procedures⁵ and prophylaxis for deep venous thrombosis.⁶ In areas where clinical trials do not exist, consensus-based guidelines based on expert opinion may be used. An example would be management of exacerbations of chronic obstructive pulmonary disease.⁷ The American College of Cardiology and the American Heart Association have published an excellent general guideline for the perioperative cardiovascular evaluation in patients undergoing noncardiac surgery.³ Finally, there are many conditions and patient populations that are not encompassed by clinical trials or guidelines. This is not surprising since internal medicine consultation is a very broad field. The medical conditions that must be addressed cover virtually the entire scope of practice and much of the value of the consultation depends on the skill of the consultant.

When to request that surgery be delayed

The decision to delay or cancel surgery rests with the surgeon and the patient. If the consultant feels that surgery ought not to proceed, he or she should speak directly with the surgeon. Verbal communication is the key to ensuring an optimal outcome for the patient. At times, the surgeon may agree that the procedure should be cancelled. In other instances, the surgeon may have information that the consultant does not have and which justifies immediate surgery.

Reasons to delay or cancel surgery differ between elective and non-elective surgery. In elective surgery, there is more time to stabilize medical conditions and to “fine-tune” medications. In non-elective surgery, the goal is often to provide short-term stabilization with more extensive workup deferred until after the procedure. An example serves to illustrate this point. For elective hip replacement, the consultant may recommend

complete pulmonary function testing in a patient with chronic obstructive pulmonary disease and shortness of breath. The goal would be to determine the extent of the lung disease, identify reversible components, and motivate the patient to stop smoking. However, if that same patient had a fractured hip it would be inappropriate to delay surgery for complete pulmonary function testing and the results would likely be influenced by the patient's pain and immobility. In this instance, an arterial blood gas and a good physical examination may determine the immediate need for oxygen and bronchodilators.

Elective surgery should be delayed when a serious medical condition is unstable or untreated. Infections, heart failure, and many other conditions fall into these categories. The consultant should also look for undiagnosed medical problems. Pregnancy should be ruled out in all women of childbearing age, either by history or testing. A careful history will sometimes elicit symptoms of angina that have previously been overlooked. A breast examination should be performed in women who are scheduled to undergo elective surgery since breast cancer is common and would preempt elective surgery. Mammograms should be appropriately up to date for age.

In some instances, even non-elective or emergent surgery may need to be delayed for unstable conditions. In fact, the entire history and physical examination should be geared to the discovery of these conditions. Diabetic ketoacidosis, sepsis, pheochromocytoma, a new myocardial infarction, and other such conditions would certainly require treatment prior to surgery. Consultants are frequently called for hypertension in patients on the day of surgery. While there are no absolute guidelines for when to delay surgery, diastolic blood pressures over 110 mm have been associated with adverse outcomes and are generally accepted as a reason for delaying urgent surgery.⁴ It is important to remember that blood pressure goes up with pain and stress. Overtreating mild hypertension on the day of surgery may result in intraoperative hypotension.

Laboratory and Imaging Tests: Basic Principles

The basic principle of clinical testing is the same as that of the physical examination and history: to identify conditions that should be stabilized prior to surgery or conditions that might require surgery to be delayed or cancelled. There is no menu of tests

that applies to all patients. A healthy sixteen year-old boy with a broken leg probably does not require testing. In general, known conditions should be investigated and stabilized. For example, blood glucose testing and measurement of serum creatinine would be appropriate in a diabetic. Specific examples are cited in the chapters that deal with each condition.

A complete blood count is the most commonly abnormal test and is routinely recommended in patients with cardiac disease, renal disease, malignancy, diabetes, in those on medications that might predispose to bleeding, and when significant intraoperative blood loss is possible.⁴ However, surgery is rarely delayed unless anemia is extreme. Electrolytes and creatinine should be obtained in patients with hypertension, diabetes, renal disease, and in those who are on medications affecting these values. Liver function testing and enzymes should be performed in persons who drink alcohol at least moderately, in those on medications which affect the liver, in patients with abdominal complaints, and in patients with known liver disease. In absence of history of clotting or anticoagulation, a protime is rarely abnormal. A recent electrocardiogram is recommended in persons with cardiac disease, but is not a good way of screening for occult cardiac disease in patients without this diagnosis. However, patients with risk factors for heart disease may experience post-operative chest pain and it is useful to have a baseline electrocardiogram for comparison purposes. Chest radiographs are performed when there is suspicion of pulmonary pathology. Other studies, such as cardiac imaging studies, are covered in their appropriate chapters.

Whenever possible, records of testing from other clinics, hospitals, or physicians should be obtained. If available in a timely fashion, these results may preclude repeat testing or allow the consultant to evaluate the chronicity of a condition.

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