Principles of Effective Consultation

An Update for the 21st-Century Consultant

Stephen M. Salerno, MD, MPH; Frank P. Hurst, MD; Stephanie Halvorson, MD; Donna L. Mercado, MD

Background: Little information in the literature exists to guide consult interactions between different medical specialties.

Methods: A total of 323 general internists, family medicine physicians, general surgeons, orthopedic surgeons, and obstetricians/gynecologists (OB/GYNs) from 3 academic medical centers completed a survey addressing their ideal relationship with consultants. Differences between surgeons and nonsurgeons were calculated using logistic regression, adjusting for location and trainee status. Differences between different specialties of surgeons were calculated using analysis of variance with Scheffe post hoc analysis

Results: There was a 72% response rate. About half of respondents were surgeons and the rest were general internists and family medicine physicians. More nonsurgeons (69%) desired the consultant to focus on a narrow question than did surgeons (41%). Over half (59%) of family medicine physicians and internists preferred to retain order-writing authority on their patients compared with 37% of surgeons ($P<.001$). Of the surgeons preferring to retain authority, 70% believed it was appropriate for consultants to write orders after a verbal discussion. Orthopedic surgeons desired consultants to write orders and comanage patients significantly more compared with general surgeons and OB/GYNs ($P<.001$). Only 29% of physicians thought literature references were useful in consultations. Most physicians (75%) desired direct verbal communication with the specialist providing the consultation. Most family physicians (78%) believed there was little need for general internal medicine input, preferring to consult medicine subspecialists directly.

Conclusions: Specialty-dependent differences exist in consult preferences of physicians. These differences vary from the extremes of orthopedic surgeons desiring a comprehensive comanagement approach with the consultant to general internists and family medicine physicians desiring to retain control over order writing and have a more focused consultant approach.

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THE MANNER IN WHICH PHYsicians from different specialties interact with each other has long been a topic for discussion. In 1983, Goldman and colleagues[1] established guidelines for medical consultation, dubbed "Ten Commandments for Effective Consultations." These commandments are to determine the question asked, establish the urgency of the consultation, gather primary data, communicate as briefly as appropriate, make specific recommendations, provide contingency plans, understand one's role in the process, offer educational information, communicate recommendations directly to the requesting physician, and provide appropriate follow-up.

In 1999, Pearson[2] published an opinion article promoting collegial and responsible relationships between specialist and generalist physicians in internal medicine. These guidelines stressed the referring physician's role in patient advocacy, arranging the consultation, and respecting the consultant's right to compensation. They also stressed the consultant's role in deferring leadership of patient management to the referring physician unless specifically negotiated, teaching the referring physician, and providing thorough documentation of the consultation.

However, there is a lack of evidence-based data on the evolution of consulting practices with more recent changes in the medical profession. One profound change has been the shifting role in the relationship between internists and surgical subspecialties. Owing to financial demands to maximize productivity, surgeons are spending more time in the operating room and have less time to care for the increasing numbers of elderly, high-acuity patients. At the same time, patients are liv-

Author Affiliations: Department of Internal Medicine, Tripler Army Medical Center, Honolulu, Hawaii (Drs Salerno and Hurst); Oregon Health and Science University, Portland (Dr Halvorson); and Tufts University School of Medicine, Springfield, Mass (Dr Mercado).

Table 1. Differences Between Surgeons and Nonsurgeons in Consult Preferences

Question	% Agreement*		*P* Value
	Surgeons (n = 153)	Nonsurgeons (n = 170)	
Consults should be limited to a specific question	41	69	<.001
Consultants should not write orders unless discussed with the primary team	37	59	<.001
A comanagement relationship is desired	59	24	<.001
Literature references are useful as part of the consult	18	41	<.001
Consult recommendations should have a description of importance and urgency	78	69	.05
Making over 5 recommendations limits compliance with the consult	22	21	>.05
Recommendations are preferred at the beginning of the consult	41	54	.02
Initial recommendations should be discussed verbally with the referring service	69	79	.05
Regardless of the patient's acuity of illness, daily progress notes from consultants are desired	78	67	.03
I find informal "curbside" consults helpful in caring for patients	53	83	<.001

*Scores of 4 or 5 on a 5-point Likert scale.

ing longer, and their medical problems are growing more complex. There is some evidence that a comanagerial collaboration between orthopedic surgeons and internal medicine physicians, with the internists managing the majority of the nonsurgical issues, improves outcomes in patients with hip fracture.[3-5] In another study, Macpherson and Lofgren[6] reported a scenario in which an internist joined a team of cardiothoracic surgeons, performing rounds with the team daily, writing orders for patients with medical comorbidities, and assisting with discharge planning. There were trends toward decreased mortality, decreased specialty consultations, and fewer transfers to the medical service. There were significant changes in length of stay, discharge medications, and reduction in radiology use. The surgeons and internists both agreed that the internist's contribution improved patient care.

From our anecdotal experience, it often appears that many surgeons would prefer the internal medicine consultant to assume a more direct role in managing medicine problems rather than a traditional relationship in which the consultant writes recommendations and the surgeon executes them. Devor and associates[7] also reported that physicians do indeed often share the responsibility for writing orders. In a review of 17 perioperative consultations requested by surgeons for the management of diabetes, Rudd and colleagues[8(p594)] found that there was often a mutual conception of a consultative relationship in which "the internist handles the diabetes while the surgeon handles the operation." The authors thought that this notion countered a central theme in academic training, which is that the surgical house staff should be involved in the comprehensive care of their patients. Other literature demonstrates that consult recommendations are often not followed, but it is not clear if differing expectations between the referring and consulting physicians are responsible for this problem.[9-13]

The relationship between family physicians and internists is also changing. Decades ago, before internal medicine subspecialists were widely accessible, family medicine providers frequently consulted general internal medicine physicians for their diagnostic skill and expertise in treating patients with a higher acuity of illness. There is now a much higher population of internal medicine subspecialists providing greater opportunities for direct consultation. There is little information in the literature on family medicine consult preferences and whether they prefer a traditional consultant-referring service relationship or a more active comanagement role on the part of the consultant. It is also uncertain if the relationship between general internal medicine physicians and medicine subspecialists still follows the spirit of the "Ten Commandments for Effective Consultations," in which the consultant generally plays an indirect role in patient management, recommending rather than comanaging. Evidence-based indications for referral from general internists to internal medicine subspecialists have been proposed,[14] but similar recommendations crossing specialties do not exist.

As a first step in trying to improve communication between referring physicians and consultants, we wanted to compare expectations of consultants between different specialties of referring physicians and reflect on any apparent changes that are different from the framework outlined by Goldman and colleagues[1] in 1983.

METHODS

A multicenter, anonymous survey of surgeons of 3 specialties (orthopedic surgeons, general surgeons, and obstetricians/gynecologists [OB/GYN] physicians), general internists, and family medicine providers was performed in 3 tertiary care medical centers, with residencies in each of the surveyed specialties in Oregon, Massachusetts, and Hawaii. The protocol was reviewed by the institutional review boards at each of the 3 locations and determined to be exempt.

The surveys consisted of a demographic section with data on the survey site, specialty, and training status of the respondent and a series of 11 questions on a 5-point Likert scale, with the anchors of 1 (strongly disagree) and 5 (strongly agree). There were 3 versions of the survey. The core survey questions given to all groups are given in **Table 1** and constituted the entire survey given to general internists. The surveys given to surgeons included a question asking whether they would prefer having internal medicine as the attending service, with the sur-

geon assuming a consultant role. The surgeon survey also included an additional question for those respondents disagreeing with consultants' writing orders without verbal discussion, asking if it would be permissible for consultants to write orders with verbal discussion. Finally, the version of the survey given to family medicine providers asked if they would prefer to consult internal medicine specialists directly rather than involving a general internist as a consultant for difficult diagnostic and treatment issues.

Statistical analysis was performed using Stata 9.0 software (StataCorp, College Station, Tex). One-way analysis of variance with Scheffe post hoc analysis was used to compare Likert scores between study sites and between surgical specialties. The χ^2 test was used to compare proportions of surgeons and nonsurgeons agreeing with study questions. The study was powered with assumptions of an α level of .05, a β level of .80, and a 60% survey response rate of 450 surveys handed out to cover all the staff and residents in each specialty of interest at each medical center. These parameters allowed us to detect a difference of 1 point on a 5-point Likert scale and a 20% difference in providers agreeing (Likert scores of 4 or 5) with a survey question.

RESULTS

DEMOGRAPHICS

We handed out 446 anonymous surveys at the 3 study sites, receiving 323 completed documents for a response rate of 72%. Of the surveys, 33% came from the Hawaii study site, 39% from the Oregon site, and 28% from the Massachusetts site. There were equal proportions of staff and residents completing the surveys. General internists and family medicine providers made up 53% and surgeons made up 47% of the respondents. There were no significant differences between survey site or training level in any of the comparisons.

COMPARISONS BETWEEN SURGEONS AND NONSURGEONS

Surgeons had several distinct differences in consult preferences compared with nonsurgical providers (family medicine physicians and general internists) (Table 1). First, surgeons were more likely than nonsurgeons to prefer a comanagement relationship, to desire consultant order writing, and to not want the consultants to restrict themselves to a narrowly defined question. Nearly 70% of the surgeons and nonsurgeons who did not want consultants to write orders believed that it was permissible for them to do so after a verbal discussion. The remainder believed that the consultant should only make recommendations regardless of having a direct discussion. Surgeons were less likely than nonsurgeons to value literature references as part of the consult. While nonsurgeons were significantly more likely than surgeons to find references of value (41% vs 18%), most providers of all specialties did not think they were a useful part of the consult. There was no difference between resident physicians and faculty on this perception within specialties. Finally, more nonsurgeons (83%) thought that informal verbal consultations were helpful compared with only 53% of surgeons.

There were some aspects of the consultant-referrer relationship in which surgeons and nonsurgeons had similar preferences. First, the majority (75%) of both types of providers preferred verbal communication of initial consult results and daily updates from the consultant. Second, both valued a sense of importance and urgency attached to the consult recommendations, with surgeons valuing this more significantly than nonsurgeons. Surgeons and nonsurgeons were ambivalent if it was preferable to have recommendations at the beginning of a consult. Finally, neither surgeons nor nonsurgeons believed that consultants needed to list 5 or less recommendations.

COMPARISONS BETWEEN DIFFERENT SURGICAL SUBSPECIALTIES

Orthopedic surgeons differed from general surgeons and OB/GYN physicians in that they had a significantly higher preference for more active consultant involvement. For example, orthopedic surgeons were significantly ($P<.001$ for all) more likely to prefer a comanagement relationship, more likely to want internal medicine to be the attending service on medically complex patients, more accepting of consultant order writing without prior discussion, and less likely to want consultants to restrict themselves to a narrow focus compared with general surgeons and OB/GYN physicians. Orthopedic surgeons were also less enthusiastic about written references as part of consults compared with OB/GYN physicians. There were no significant differences between preferences of OB/GYN surgeons and general surgeons.

COMPARISONS BETWEEN NONSURGICAL SPECIALTIES

There were no significant differences between the preferences of general internists and family medicine providers when dealing with other internal medicine specialty consultants. We additionally asked the family medicine providers if they preferred to consult internal medicine subspecialists directly rather than consulting general internists to care for patients with complex diagnostic and/or treatment issues. Most family medicine providers (78%) preferred to consult internal medicine subspecialists directly.

COMMENT

Our results demonstrate that the expectations of the referring physician differ by specialty. These expectations range from traditional relationships in which the consultant provides advice regarding a specific question and the referring physician writes all orders, to full management, including order writing, of all internal medicine issues by the consultant.

There are several trends that make the consulting milieu of 2006 different from that which Goldman and colleagues[1] described in 1983. First, there has been a growth in pharmacology, available laboratory tests, and surgical technology, greatly complicating medical decision making. This makes it exceptionally difficult for any phy-

Table 2. Modified Ten Commandments for Effective Consultations

1983 Commandments*		2006 Modifications	
Commandment	**Meaning**	**Commandment**	**Meaning**
1. Determine the question	The consultant should call the primary physician if the specific question is not obvious	1. Determine your customer	Ask the requesting physician how you can best help them if a specific question is not obvious; they may want comanagement
2. Establish urgency	The consultant must determine whether the consultation is emergent, urgent, or elective	2. Establish urgency	The consultant must determine whether the consultation is emergent, urgent, or elective
3. Look for yourself	Consultants are most effective when they are willing to gather data on their own	3. Look for yourself	Consultants are most effective when they are willing to gather data on their own
4. Be as brief as appropriate	The consultant need not repeat in full detail the data that were already recorded	4. Be as brief as appropriate	The consultant need not repeat in full detail the data that were already recorded
5. Be specific	Leaving a long list of suggestions may decrease the likelihood that any of them will be followed, including the critical ones	5. Be specific, thorough, and descend from thy ivory tower to help when requested	Leave as many specific recommendations as needed to answer the consult but ask the requesting physician if they need help with order writing
6. Provide contingency plans	Consultants should anticipate potential problems; a brief description of therapeutic options may save time later	6. Provide contingency plans and discuss their execution	Consultants should anticipate potential problems, document contingency plans, and provide a 24-h point of contact to help execute the plans if requested
7. Thou shalt not covet thy neighbor's turf	In most cases, consultants should play a subsidiary role	7. Thou may negotiate joint title to thy neighbor's turf	Consultants can and should comanage any facet of patient care that the requesting physician desires; a frank discussion defining which specialty is responsible for what aspects of patient care is needed
8. Teach with tact	Requesting physicians appreciate consultants who make an active effort to share their expertise	8. Teach with tact and pragmatism	Judgments on leaving references should be tailored to the requesting physician's specialty, level of training, and urgency of the consult
9. Talk is cheap and effective	There is no substitute for direct personal contact with the primary physician	9. Talk is essential	There is no substitute for direct personal contact with the primary physician
10. Provide appropriate follow-up	Consultants should recognize the appropriate time to fade into a background role, but that time is almost never the same day the consultation note is signed	10. Follow-up daily	Daily written follow-up is desirable; when the patient's problems are not active, the consultant should discuss signing-off with the requesting physician beforehand

*From Goldman et al.[1]

sician to practice evidence-based medicine in all areas. Second, rising costs not fully matched by provider reimbursement have placed increasing demands on health care provider productivity. Finally, surgeons have had to adapt to increased productivity demands in the midst of new work hour requirements in graduate medical education, which may result in a less robust presence on surgical wards. The results obtained from the surgeons in this survey by specialty were remarkably consistent across levels of training and locations. The surgeons clearly wanted a more involved consultant and preferred a formal relationship rather than informal advice. Even most surgeons not wanting a consultant to have carte blanche in writing orders for their patients found it desirable for the consultant to do so after a verbal discussion.

Interestingly, in contrast to surgeons, general internal medicine physicians and family medicine physicians follow more traditional referring physician patterns in which the consultant provides advice related to a narrow question and they consider and execute the instructions as appropriate.

With these profound changes in the profession of medicine, one might ask if "Ten Commandments for Effective Consultations" by Goldman and colleagues[1] remain relevant in 2006. We think they are with minor modifications (**Table 2**). We propose that there are several features of the commandments, such as an emphasis on verbal communications, performing analysis of primary data at the bedside, being succinct, and establishing the urgency of the consult, that are still as relevant in 2006 as they were in 1983. The strong preferences for daily input in our study led us to recommend this explicitly for all consults as the 10th commandment, reinforcing that of Goldman and colleagues.[1]

There were some changes in our proposed commandments, however. We recommend to focus less on defining a specific question for the consult and more on simply verbally asking how the consultant can help the referring physician when there is no clear question. This should quickly establish whether a comanagement relationship is desired. The consultant should not fear writing orders when the referring physician is not comfortable doing so or cannot in a timely manner, provided that this relationship is defined at least verbally at the time the consult is initiated. We propose that this conversation is an essential part of the initial consult. Finally, there does not appear to be hesitation or irritation with a consultant offering multiple recommendations salient to the patient's care, at least among surgeons. We suggest that the consultant should offer to help order the tests and therapies he or she suggested if the referring physician is not immediately available or not comfortable writing the orders. Furthermore, the consult should provide explicit instructions on where he or she or an on-call colleague can be reached if the patient's clinical condition deteriorates. This more involved and interactive approach to consultation may be an especially appropriate fit for today's hospitalists and their relationship with many surgical subspecialists.

Though our study did not address the proper role of consultants as teachers of trainees and referring physicians, we were surprised to see a lack of interest in literature exchanges. Until further information exploring this is obtained, we suggest less emphasis on references in a busy surgical ward setting and more emphasis on bedside teaching, which is a natural extension of the "curbside consult." The consultant should notify trainees on the primary team when he or she is conducting their assessment of the patient because teaching, primary data clinical gathering, and medical decision making may offer valuable opportunities for learners.

There were several limitations to our study. First, it was a small study that encompassed 5 specialties at 3 academic medical centers. It may not be reflective of community hospital relationships nor be generalizable to all specialties. Second, while the study measured preferences of the referring physician, it did not measure compliance with consultant recommendations or the actual relationship between consultants and referring physicians at the studied institutions. Finally, the study only addressed 1 perspective in the relationship, that of the referring physician, and did not address the perspective of the consultant. Unanswered questions resulting from this study include how often verbal interaction between the consultant and referring physician actually occurs and whether a more proactive approach by the consultant in volunteering to accept comanagement duties results in higher compliance with consult recommendations.

In conclusion, we recommend that internal medicine consultants adopt a flexible relationship strategy with the referring physician. For the traditional internal medicine specialist interacting with a family medicine provider or general internist, a traditional relationship centered on focused verbal and written input with the referring team managing order entry may be the norm. For other relationships, such as with orthopedic physicians, a comanagement strategy may make more sense. In all initial consults, a frank verbal discussion between the consultant and referring physician about the role of the consultant including optimal communication strategies, scope of responsibility, and order writing is desirable.

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Correspondence: Stephen M. Salerno, MD, MPH, Department of Internal Medicine, Tripler Army Medical Center, 1 Jarrett White Rd, Honolulu, HI 96859 (stephen.salerno@us.army.mil).
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