Practice and Hospital Economics

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ABSTRACT

There has been a significant effort over the past 10 years to attempt to control the rate of increase in the cost of medical care. However, as is true of any economic system, there are multiple stakeholders involved and often competing motivations. The single largest source of medical inflation is the cost of pharmaceuticals; however, this topic is not directly discussed in this article. Similarly, the cost of medical insurance products is not included as these issues cannot be directly addressed by physician behavior. The body of this discussion focuses on costs directly experienced by or potentially controlled by physicians. These areas include practice expense and margin and hospital direct costs and margin. It is essential for physicians to understand fully factors they can potentially control and areas they may be able to influence in this troubling era of cost containment.

KEYWORDS: Medical costs, reimbursement, practice expense

Objectives: Upon completion of this article, the reader should be familiar with the economic aspects of hospital and clinical practice in colon and rectal surgery.

In a typical economic system, there are relationships between multiple stakeholders who alternately play the role of vendor and customer. A highly functioning system allows a clear understanding of the relative cost and expense for the different players. This understanding leads to a rationalization of pricing that allows each party to thrive. Unfortunately, the status of medical care delivery is not this type of animal. Medical care is fragmented: individuals purchase insurance but play little role as consumers of their health care; insurers have little stake in quality outcomes and choose to purchase services as a commodity for their beneficiaries; hospitals and physicians are generally reimbursed by separate pools of capital; and physicians are asked to be the gatekeepers in resource consumption only to experience no reward but all the risks associated with denying access. It is beyond the scope of this discussion to define or suggest corrections for all that is wrong with the current system of financing health care in the United States. The discussion

attempts to review the sources of cost and revenue for the physician directly and the potential leverage high-quality care may provide in the hospital setting.

CORRECT DOCUMENTATION AND CODING: HOW DO I GET THE MONEY?

Accurate physician documentation and coding by the Current Procedural TerminologyTM (CPT) code system is essential to a successful practice. This system provides the framework to capture all work performed and to assure that all reimbursement follows, assuming the rules are understood and utilized. In addition, accurate coding improves billing correctness and results in more rapid reimbursement and decreases in payment denials, which optimizes the revenue cycle. Finally, assuming accurate coding, the analysis of code patterns and individual volumes can be an important practice management tool to identify areas for improvement or to assign resource

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consumption under activity-based accounting (see later). It is essential that all physicians take the time and effort to master the components of a code and the documentation required in the medical record to achieve the financial rewards as well as avoid the risk of Medicare fraud prosecution under a variety of federal statutes.

These codes are developed by the American Medical Association (AMA) in conjunction with representatives from virtually all medical specialties. The process involves (1) the identification of a new procedure/encounter and the components of the activity by the CPT committee of the AMA; (2) recommendation of the appropriate relative value units (RVUs) by the Relative Value Units Update Committee (RUC) of the AMA; and (3) submission of the recommendations from the RUC to the Centers for Medicare and Medicaid Services (CMS) for final payment policy.

Coding for evaluation and management encounters requires a lengthy discussion and is not reviewed here. Suffice it to say that coding components follow the basic components of the history and physical coupled with a description of the plan of care. It is essential to record all the activities performed during that encounter, tempered by the medical necessity to be correctly compensated.

Procedure coding begins with an accurate operative report that describes all the components according to the given procedural code or codes. It is very helpful to have your biller review the dictation prior to claim submission to avoid false claims and to capture all billable procedures. Physicians should be aware that there are multiple code modifiers that may be required for accurate reimbursement, and these are available in the CPT manual. Finally, some procedures are mutually inclusive and will not be paid separately, regardless of modifier use. These codes are defined by the correct coding initiative (CCI) edits and are available in electronic format in most modern billing systems. Correct documentation will allow the physician to be accurately and rapidly reimbursed for services rendered, avoid unnecessary work performed, and avoid legal entanglements related to inaccurate coding. If the physician works with the billing office, many of the errors in bill submission can be avoided and the physician will be able to obtain a much more accurate reflection of the sources of practice revenue. The individual physician is encouraged to develop a paper or computer template that allows the easy recognition of data elements and the recording of those elements. A focus on a practice-friendly means of recording the data from the encounter will streamline the work efficiency and the overall revenue of the practice.

THE OFFICE: THE MONEY COMES AND IT GOES

It is clear that surgeons will face a continual downward pressure on income as evidenced by continued threats of

decreases in the Medicare fee schedule on an annual basis. This was in the presence of decreases in the "medical practice expense" component of most procedure codes as a result of the transition to a resource-based formula. Although there have been significant efforts to mitigate some of these changes through various methods of advocacy, there are only two real alternatives for the practicing surgeon: do more surgery or strategically manage practice expenses, or both. Doing more has obvious limitations and is hardly a practical solution physically or psychologically at a certain level. Cost management, however, offers significant potential benefit but is severely underutilized in most medical practices.

Traditional financial reports provide little, if any, useful information to the physician trying to manage and control practice expenses strategically. It is very difficult to manage directly from either the balance sheet or profit-loss statement. The balance sheet reflects the current status of assets and debts for the practice. The income statement reflects the revenue and expenses for a practice over a given period and is typically reported on a cash basis for the various categories, that is, rent, salaries, and supplies. There is no way to tie these measures to either a specific category of encounters or even an individual encounter. The typical surgical response to this dilemma is, "if I do more it must be better." A potential methodology is activity-based cost accounting (ABC), which is capable of providing an information base for analysis of revenue and expenses so that a surgeon's behaviors can be altered to enhance net revenues.

Activity-based cost accounting is based upon the analysis of activities performed by the practice administrative and clinical staff and the relationship among these activities and the cost and performance of these activities defined by time and quality. The result of these analyses yields three primary components: (1) activity analysis, which defines the scope of activities performed by the practice; (2) cost object analysis, which defines the costs in terms of the specific procedures performed by the practice defined by the CPT code; and (3) a cost driver analysis, which relates the quantity of resources and activities back to the cost object. These activities have been fully discussed in a recent publication and are only briefly reviewed here.

Activity analysis requires careful consideration of all tasks performed by employees within the practice at a detailed level to identify multifunctionality of the team members, work redundancy, and non-value-added time for tasks. The level of staff (i.e., registered nurse versus clerical) is an important costing element, which should be considered in the analysis.

The definition of a cost object according to ABC is based upon the various CPT codes we use for procedures and evaluation and management (E/M) codes. It is

important to understand that the E/M codes have very similar costs despite very different reimbursement levels. In addition, the majority of the procedure codes have E/M activities included in the global period and should be accounted for in any analysis. Using this approach, it becomes a simple task to drill down to the RVU level of analysis. Examples of cost drivers include the per hour cost of an individual staff member or the yearly rent cost for office space. The three steps for ABC model building are shown in the following.

Model Building—First Step

Identifying and defining the essential activities that take place in the medical practice is the first step in implementing an ABC system. It is essential to assess both the myriad administrative tasks performed by the office staff and the time spent assisting the physician during direct contact with patients.

Model Building—Second Step

As mentioned before, the cost objects are the basic categories of CPT codes, which require a separate measurement of costs. For a medical practice typical cost objects are:

- No-charge office visit
- Charge office visit
- Charge hospital visit
- Surgery (90 day global versus 10 day)

Model Implementation—Third Step

The third step of the ABC system consists of assigning cost data using data from traditional financial and tax reporting to the various cost objects based upon the assigned component activities from step 1. The assignment of activity cost is based on the number of patients seen in each respective cost object category. For example, the “service patient in the office” activity is consumed for

every no-charge office visit ($n=50$), charge office visit ($n=150$), and surgery ($n=50$). Therefore, if the total resources assigned to the service patient in the office activity was \$3000: $\$600[(50/(50+150+50)) * \$3000]$ would be allocated to no-charge office visits, \$1800 would be allocated to charge office visits, and \$600 would be allocated to the surgery procedure. A straight allocation is applied because it is typically not the complexity of the service but the event of a patient flowing through the office that consumes practice expense resources. An example of the impact of differential cost structures for several practices from the study performed under the auspices of the American Society of Colon and Rectal Surgeons is shown in Figure 1. One can easily appreciate the distinct advantage enjoyed by Practice 4 in this example.

The implementation of an ABC format allows the surgeon to assess how practice expenses are consumed, particularly with respect to differences in reimbursement for services that consume similar resources. Opportunities to affect cost structure include changing the administrative and clinical staff mix of responsibilities or expanding value-added services and limiting the alternative work processes. The ABC process can also assist the surgeon in determining the appropriate site of service for a given operative procedure.

THE HOSPITAL: CAN WE MAKE A DIFFERENCE?

The Medicare prospective payment system (PPS) was implemented in 1983 for the purpose of ensuring access to care for the beneficiaries and providing some means of cost control. It is anticipated that clinicians will employ medically appropriate treatment for any individual patient and the various degrees of complexity will average out over time. Resources that can be controlled are hospital days, types and numbers of instrumentation and consumables, operative duration, diagnostic studies, and pharmaceuticals. A further layer of complexity

Figure 1 Differential cost structure of sample practices.

related to reimbursement is code pairs of with/without complications. In the case of colectomy, the pertinent diagnosis-related groups (DRGs) are DRG 148 or DRG 149 and payments under the Medicare fee schedule in the United States are respectively \$20,291 versus \$8310. Therefore, from the payer's perspective, a provider who can reduce the percentage of patients in the higher cost DRG would be significantly more cost effective. Conversely, the hospital relies upon the physician to control resource consumption. A recent analysis of the impact of open versus laparoscopic colectomy demonstrated significant advantages in favor of the former. The study identified several important issues related to the impact of different operative approaches. First, 62% of the laparoscopic patients were allocated to the more expensive DRG 148 due exclusively to preexisting comorbidities, compared with only 21% of the open patients. Second, only 22% of the laparoscopic patients migrated from the lower reimbursed DRG 149 to 148 as a result of postoperative complications versus 42% for open. Therefore, from the payer's perspective there was a potential savings for offering laparoscopic colectomy to all patients without significant comorbidities (i.e., DRG 149 candidates upon admission).

The hospital has the risk of decreased revenue as a result of the reduction of DRG 148 patients. However, the laparoscopic approaches offer two significant offsets. First, the direct cost for managing open colectomy patients was significantly higher (\$5997 versus \$3971). This benefit was primarily due to the fact that laparoscopic patients consume fewer hospital days, diagnostic studies, and pharmaceuticals. Second, reduction in hospital stay provides the opportunity for capacity management by providing increased access to hospital beds without the need for construction or increased numbers of personnel. However, as the old saying goes, "no good deed goes unpunished." Medicare DRG reimbursement in 2006 has added colectomy to the special payment policy rule for postacute care. This policy states that if the patient is discharged at less than the geometric length of stay for that DRG and requires home care or extended care facility placement, the DRG payment is reduced. The reduction is calculated in Table 1.

Therefore, to maintain the benefit of enhanced throughput, the procedure must truly yield improved recovery for the patient without the need for out-of-hospital health care resources. If this is not the case, the hospital will face a loss in reimbursement that may be very difficult to offset by the efficiencies of care. The downside of this type of payment policy may well inhibit innovation in postoperative care plans or enhanced recovery plans. The potential improvements in the use of limited resources such as bed days and nursing personnel are important additional benefits. The further

Table 1 2006 DRG Payment Reductions for Postacute Care

	DRG 149	DRG 148
Mean LOS	5.4 days	10.0 days
Payment	\$8,310	\$20,291
Per diem	\$1,385	\$1,844
Payment (after day 1)	\$2,270	\$3,688
Payment (after day 2)	\$4,155	\$5,532
Payment (after day 3)	\$5,540	\$7,376
Payment (after day 4)	\$6,925	\$9,220
Payment (after day 5)	\$8,310	\$11,064
Payment (after day 6)		\$12,908
Payment (after day 7)		\$14,752
Payment (after day 8)		\$16,596
Payment (after day 9)		\$18,440
Payment (after day 10)		\$20,284

DRG, diagnosis-related group; LOS, length of stay.

implications of this type of payment policy are the specter of economic credentialing of physicians. For example, do you safely and reproducibly decrease hospital resource consumption without decreasing reimbursement? Alternatively, are you the "black hole" of hospital resources?

SUMMARY

The current economic system we find ourselves in requires increasing sophistication in the business practices of recording work and submitting claims for reimbursement and a clear understanding of how to manage our practices. It is simply not possible to "work your way out" of this complicated and potentially very costly problem. It is well worth taking the time to understand more fully the factors that affect your personal reimbursement and avoid statutory violations, and it may well define your hospital credentialing in the future. The old adage "forewarned is forearmed" is appropriate as always.

DISCLOSURE

The author has no conflicts to disclose with respect to this article.

SUGGESTED READINGS

- Bemelman WA, Slors JF, Dunker MS, et al. Laparoscopic-assisted vs open ileocolic resection for Crohn's disease. A comparative study. *Surg Endosc* 2000;14:721-725
- Brimson J. Activity Accounting: An Activity Based Costing Approach. New York, NY: John Wiley & Sons; 1991:58-67
- Delaney CP, Kiran RP, Senagore AJ, Brady K, Fazio VW. Case-matched comparison and financial outcome after laparoscopic or open colorectal surgery. *Ann Surg* 2003;238:67-72

- Senagore AJ, Brannigan A, Kiran RP, Brady K, Delaney CP. Diagnosis-related group assignment in laparoscopic and open colectomy: financial implications for payer and provider. *Dis Colon Rectum* 2005;48:1016–1020
- Senagore AJ, Duepre HJ, Delaney CP, Dissanaïke S, Brady KM, Fazio VW. Cost structure of laparoscopic and open sigmoid colectomy for diverticular disease: similarities and differences. *Dis Colon Rectum* 2002;45:485–490
- Young-Fadok TM, HallLong K, McConnell EJ, Gomez Rey G, Cabanela RL. Advantages of laparoscopic resection for ileocolic Crohn's disease. Improved outcomes and reduced costs. *Surg Endosc* 2001;15:450–454
- Zeller TL, Senagore AJ, Siegel G. Manage indirect practice expense the way you practice medicine: with information. *Dis Colon Rectum* 1999;42:579–589