Chapter 46
Healthcare Management 101

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Modern medical education focuses almost entirely on the task of training medical students and residents to become competent in the care of patients. As expected, board examinations focus on the core knowledge required to practice medicine, and they become more specialized as an individual moves through the training process. Clearly, the training and examinations are necessary to meet our professional standards for competency, but they do not fulfill all of the requirements needed to be successful as a physician. Success in today's medical climate is linked to overall financial well being. Unfortunately, most of the training in healthcare business and financing is left to the continuing medical education arena and is almost ignored at the undergraduate and graduate levels. At the Medical College of Georgia Neuroscience Center, the business training deficit was realized and a curriculum was developed and mandated for the neurosurgery residents. However, several potential barriers existed. These included the new 80-hour work week for residents, lack of case coverage during business didactic sessions, and the fact that the program cannot replace neurosurgical training with business classes. Thus, an internet-based teaching format was created to overcome these obstacles. Since its inception, the curriculum has been adopted by the entire Medical College of Georgia house staff.

As part of a search to obtain a copyright for the internet-based Healthcare Management 101 course, it was discovered that the program format we used was unique. Further literature searches and internet searches yielded multiple continuing medical education courses and editorial discussions regarding the utility of teaching residents to document and code accordingly, but almost no instances of published undergraduate or graduate medical education focused on medical economics (1, 2, 3). One notable exception was the University of Pennsylvania's undergraduate program, although its format differed from our course.

METHODS

Our curriculum was developed using Microsoft PowerPoint presentation slides synchronized with an audio-visual presentation. The total program length is approximately 4 hours and includes seven sessions, a pretest, and a posttest. The purpose of the pretest was to establish a baseline from which to measure knowledge gained from the sessions. After taking the pretest, the residents gained access to the online sessions using a unique login and password. The topics included the history of healthcare financing, current procedural terminology coding and relative unit values, regulatory issues, private practice management, and finally, basic business administration for the clinician. After completion of the seven sessions, the posttest was administered. The pretest results were compared with the posttest results to assess improvement or presumably, knowledge gained from the sessions.

RESULTS

The preliminary data was gathered and assessed from fifteen residents within several subspecialties, but mostly neurology and neurosurgery. The average pretest score was 64.30% (range 45.36 – 72.00%). Of the fifteen residents, eight completed all sessions and the posttest (Table 46.1). The posttest average score was 71% (range 56.98 – 86.30%), which was an average improvement of approximately 7%. Of the curriculum participants, 87.5%

had improved posttest scores, and one subject actually scored lower on the posttest compared with the pretest scores (Table 46.2).

One technical difficulty specifically related to the format of the curriculum was a nonfunctional internet link. The link providing access to one of the sessions was down for several weeks prior to being noticed. This was resolved when the issue was brought to the attention of the technical support personnel.

DISCUSSION

The changing climate of medical reimbursement and laws related to coding mandates a basic knowledge of medical economics. The issue lies with finding the appropriate time to teach physicians the business aspects of medicine. Clearly, a practitioner is faced with the concerns of business management when he or she is running a practice. Traditionally, the focus of training has concentrated more on medical knowledge and technical skill acquisition, and less on medical economics. Perhaps now more than ever before, residents are taught to deliver comprehensive but financially efficient medical care as academic centers are being forced into financial solvency despite research-related expenses.

The internet-based curriculum developed at the Medical College of Georgia provides an introduction to medical economics. Given the approximately 4 hours to complete the tests and the sessions, the course is not too burdensome for the house staff, although it is only an introduction to healthcare business and financing. Basic principles are taught from which students can acquire a solid foundation of business knowledge.

To answer the question as to when to teach medical economics, the Medical College of Georgia has implemented this course for residents only. It seemed reasonable to teach residents these principles before graduation. To date, undergraduate medical education will remain focused on basic science and introductory clinical experiences.

With regard to implementation of our internet-based protocol, several potential issues have surfaced. The first issue was structural. It is presumed that busy resident would not devote roughly 4 hours at one time to complete the pretest, the seven sessions and the posttest. It seemed more likely that the sessions would be completed as time allowed and the posttest completed possibly even later. The failure to provide a posttest after each session could have contributed to the lower posttest score noted in one of the participants.

Another potential issue was that house staff member could start any of the sessions on his or her computer and walk away while the session plays unattended. The participant would have received credit for completing the session or sessions but obviously would not have improved his or her knowledge base. By receiving credit for the sessions, the house staff member would have been eligible to complete the posttest. Thus, course completion could have been possible with little or no effort as improvement from pretest to posttest scores is not mandated. Likewise, no minimum score was required as a passing grade because the course was set up to be a service to the house staff.

CONCLUSION

In conclusion, the internet-based Healthcare Management 101 course developed at the Medical College of Georgia is an innovative way to deliver content to a busy audience. The information is important to every practicing physician,

and as such, will be important to the house staff. There will likely be a revision to the timing of the posttest to give participants immediate feedback and this may positively affect scores. The one thing that will remain the same is the content.