In 2008, the major gastroenterology and hepatology societies—American Association for the Study of Liver Diseases (AASLD), American College of Gastroenterology (ACG), American Gastroenterological Association (AGA), and American Society for Gastrointestinal Endoscopy (ASGE)—created a 9-member task force to evaluate the current gastroenterology training model and make recommendations as to how it might be changed to better accommodate trainees’ interests in specific areas of gastroenterology and hepatology practice. Each society appointed 2 representatives to the committee and agreed that Dr Lawrence S. Friedman, not representing any society, would chair the committee. The AGA agreed to provide administrative support for the group.

One rationale for establishing the task force was the emergence of various issues concerning training, especially certification in transplant hepatology and proposals by some for a separate training pathway in hepatology. In fact, there is evidence of a shortage of qualified transplant hepatologists, due in part to the length of training that is required. An additional consideration was the perception that the current training curriculum may not adequately prepare trainees for specialized areas of practice such as advanced endoscopic procedures, inflammatory bowel disease (IBD), and gastrointestinal oncology.

The group met via teleconference on November 17, 2008, primarily to review the task force charge and a set of background materials dealing with subspecialty training in gastroenterology. Also discussed was the key role of the American Board of Internal Medicine (ABIM) in effecting any substantive changes in gastroenterology training. The group decided to invite the ABIM to participate in its future deliberations. The task force agreed to meet in person on March 6, 2009; this report is primarily a summary of the discussion that took place at that meeting and recommendations emanating from that discussion.

IMPLEMENTING THE RECOMMENDATIONS IN THIS REPORT

This report has been reviewed and was approved unanimously on March 25, 2009, by the members of the task force. Subsequent to this approval, the report was approved by the governing boards of each of the 4 societies. The task force notes that many of the recommendations herein cannot be realized without the acceptance of the ABIM and that such acceptance is predicated on (although not guaranteed by) the full endorsement of the report by all 4 gastroenterology and hepatology societies represented on the task force.

GASTROENTEROLOGY AND HEPATOLOGY

Some hepatologists have proposed that separating the training and certification of hepatologists from that of general gastroenterologists might be beneficial to the field and to patients. This proposal was considered in the discussion of the training and certification of transplant hepatologists (see the following text). The task force concluded (unanimously) that making general hepatology its own discrete specialty separate from gastroenterology was not advisable, especially because hepatologists are often required to manage digestive problems that their patients develop and therefore need firm grounding in the practice of gastroenterology.

It was also noted that the ABIM certification and recertification examinations in gastroenterology are the same for everyone; that is, the ABIM does not distinguish among gastroenterologists who focus in various areas of the field, other than transplant hepatologists. (Transplant hepatologists take an additional examination in transplant hepatology [a secondary subspecialty; formerly called an added qualification].) Nevertheless, there is defined meaning to the term “hepatology” and, hence, the group felt that the 2 principal subdisciplines—gastroenterology and hepatology—ought always to be juxtaposed when referring to the specialty in general.

Recommendation 1

The task force does not support separating training and certification in hepatology from gastroenterology; furthermore, it recommends that the term “gastroenterology and hepatology” (gastroenterology/hepatology) be used when referring to the broad specialty of gastroenterology.

ABIM’S VIEW OF REDESIGNING TRAINING PROGRAMS

At the invitation of the task force, Dr William Iobst, Director of Academic Affairs at the ABIM, attended the
meeting and presented a detailed description of the ABIM’s views on redesigning training programs, particularly with regard to competency-based subspecialty training and certification. He indicated that the ABIM is open to considering significant changes in training curricula only if acceptable answers to key questions are provided:

1. How will redesign ensure that trainees acquire the knowledge, skills, and attitudes essential for excellent patient care?

2. Is the redesign based on clearly defined outcomes that (a) are measurable, ideally through direct observation of a trainee’s performance and (b) provide a clear basis for identifying superior and inferior performance relative to the application of specific knowledge and skills?

Regarding the definition of a true medical specialty, the ABIM follows the New and Emerging Disciplines in Internal Medicine (NEDIM) 2 criteria, which are based on the degree to which supervised training is required relative to pure self-learning; that is, if one can learn a discipline mostly through self-education, it is not a true specialty.

In summary, if the proposed curriculum redesign successfully develops and demonstrates improved trainee outcomes against a set of defined core competencies, it will be received favorably by the ABIM. Put another way, the ABIM wants a system that can verify competency for someone who claims competency. Thus, gastroenterology/hepatology through its professional societies will eventually need to revise its core curriculum on the basis of defined competencies, not merely on the basis of descriptions of what must be taught, an arbitrary duration of training, numbers of procedures, and the like. When a trainee can demonstrate competency in a defined area, he or she has achieved the goal of training. Admittedly, this is somewhat easier to do for procedural training than for other areas of practice. Each society will need to consider how to demonstrate improved patient outcomes resulting from specialized education and training.

**Recommendation 2**

The task force recommends that, over time, the gastroenterology/hepatology societies should revise the Gastroenterology Core Curriculum into a competency-based document, with the recognition that procedural training will still necessitate technical and cognitive milestones.

The task force emphasizes that any changes to gastroenterology/hepatology training programs must be consistent with what is best for patients and improves patient care.

The task force also recognizes that community practitioners may not look favorably on a 3-year program graduate who also possesses an ABIM certificate in a specific area, for example, IBD. Such practitioners would feel competitively disadvantaged. This does not mean that they would not accept a 3-year fellow who had emphasized IBD, for example, in his or her training and thus had above average expertise in that area at the end of fellowship training.

**TRANSPLANT HEPATOLOGY**

As noted earlier, a major concern in the hepatology community is the apparent shortage of trained transplant hepatologists. Anecdotal evidence suggests that this shortage is a result, in part, of the length of time it takes to become a transplant hepatologist: 4 years of medical school plus 3 years of internal medicine residency plus 3 years of gastroenterology fellowship plus 1 year of transplant hepatology training. By way of background, 3-year gastroenterology fellowships currently consist of 18 months (not necessarily consecutive) of clinical inpatient training, 30% of which must be in liver disease; 6 months of research or other scholarly pursuits; and 12 months of elective time. (Note that this schedule already allows for a degree of subspecialization by trainees.) There are also minimum numerical thresholds for procedural competency. Additionally, continuity outpatient clinic time must be scheduled throughout the 3 years of training.

The task force considered various ways that the transplant hepatology program in toto could be structured to shorten the duration of training yet actually enhance the competency of trainees. In one model, the third year of general gastroenterology training could perhaps be used more effectively and efficiently to cover transplant hepatology. In another model, 1 year of general gastroenterology would be followed by 2 years of transplant hepatology. For various reasons, neither of these proposals was felt to be satisfactory.

Rather than just considering the boundaries of the current 3-year training calendar, the task force felt that the Maintenance of Certification process could be used to enhance requirements for transplant hepatology training and experience while allowing the standard gastroenterology/hepatology fellowship to be used as the starting point for training in transplant hepatology. In this model, the curriculum for a transplant hepatologist would follow the structure shown in the following text. The research experience and elective portion of the fellowship would focus on transplant hepatology. The trainee would take the same certifying examination in gastroenterology and hepatology after the 3-year fellowship that other trainees take. Following completion of the fellowship, the individual would work in transplant hepatology and accrue additional extensive, defined experience that would be documented carefully in a portfolio and under the mentorship of senior transplant hepatologists. The first Maintenance of Certification cycle would be shortened from the current 10 years (eg, to 3 years), and the secure recertification examination would be tailored to cover both general gastroenterology and hepatology and transplant hepatology. Successful completion of this first
Maintenance of Certification cycle would yield a “Focused Recognition” in transplant hepatology (in addition to recertification in gastroenterology and hepatology). This model would clearly increase the competency of transplant hepatologists by adding a practice and experience component to their recertification. Therefore, the core educational structure that currently requires a fourth year of training would be incorporated into the standard 3-year curriculum and would be followed by an experience-based requirement for examination eligibility.

Recommendation 3

The task force recommends the following model for Focused Recognition in transplant hepatology:

TRAINING FOR NONTRANSPLANT GASTROENTEROLOGIST-HEPATOLOGISTS

Community or academic practice that does not include transplant hepatology is the goal of most trainees in gastroenterology and hepatology. A key issue for training programs, therefore, is what gastroenterology/hepatology training should look like for those trainees, especially if transplant hepatology will be an option for some trainees at some institutions. The task force felt that many trainees would want to obtain enhanced training in certain disease areas, eg, motility and functional disorders, nutrition and obesity, IBD, gastrointestinal/hepatobiliary oncology, or advanced endoscopy (see the following text). Others would want broad-based training that prepares them for the full spectrum of disorders encountered in the practice of gastroenterology/hepatology. Unlike the situation in transplant hepatology, the task force felt it was not desirable for trainees who undertake an emphasis in one area during their training to later receive focused recognition in that area (ie, to take a tailored recertification examination). However, if a graduating fellow subsequently focuses his or her practice in an area (eg, IBD) and wants to be identified as having special interest in that area, a mechanism could be developed to allow the practitioner to be recognized for doing “Focused Practice.” The area-specific experience of the individual could be demonstrated through use of a predefined portfolio, as in the case of transplant hepatology, but without the requirement for a specialized examination at the time of recertification.

The task force recognized that a precise definition of Focused Practice would need to be established. It also noted that several subject areas of increasing importance to all gastroenterologists, regardless of their focus of training and practice, would need more emphasis in the training curriculum, including practice management and clinical genetics.

Recommendation 4

The task force envisions the following general gastroenterology/hepatology training model. As noted previously, validation of trainees’ abilities to traverse this curriculum will need to be competency based.

In considering recommendations 3 and 4, the task force envisions that transplant hepatologists will undergo recertification 3 years after initial certification in gastroenterology/hepatology via the Maintenance of Certification process, with documentation of practice experience through a predefined portfolio, including demonstration of involvement in the care of a specified number of transplant patients, plus a tailored secure examination. Completion of this pathway will lead to recertification in gastroenterology/hepatology with Focused Recognition in transplant hepatology. For most (nontransplant) gastroenterologist-hepatologists, the option of using a portfolio to demonstrate focused practice in a specified area can be included in the Maintenance of Certification process, but a focused practice is not required. Recertification for this group will be in gastroenterology/hepatology, with the option of the designation of a Focused Practice.

TRAINING IN ADVANCED/INTERVENTIONAL ENDOSCOPY

The task force recognized that competency is somewhat easier to assess for procedural training than for nonprocedural training. Moreover, for procedural training, the attainment of technical and cognitive milestones is critical. It is difficult to standardize a priori the minimum number of procedures trainees need to become competent for many advanced procedures (eg, colonic stent placement). Establishing standard numbers may not be as important if the curriculum is competency based, because once a trainee demonstrates competency the goal of training has been achieved. Nevertheless, once a trainee is competent and enters practice, he or she must continue to perform enough procedures to maintain competency. Developing a Maintenance of Certification process related to advanced procedural competency may thus be difficult. It is self-evident that procedural competency is specific to an individual procedure. Thus, if a gastroenterology/hepatology training curriculum contains an advanced endoscopy focus, it will need to specify which procedures are included. The specific procedures might vary from program to program once a set of core procedures that define an advanced endoscopy focus has been established. An emphasis on endoscopic retrograde cholangiopancreatography and endoscopic ultrasonography is likely.

The task force concluded that an advanced endoscopy option could be included in the final 18 months of fellowship (see previous text) or could be completed in an additional fourth year of training.

Recommendation 5

The task force recommends that training programs (at their option) offer an advanced endoscopy focus either
during the final 18 months of training or during a fourth year of training. When advanced endoscopy training is undertaken during the final 18 months of training, the same technical and cognitive milestones and criteria for competency should be applied as for training undertaken during a fourth year.

**TRAINING GASTROENTEROLOGY/HEPATOLOGY RESEARCHERS**

Currently, fellows must devote 6 months (not necessarily consecutive) of their training to research, one reason being that medicine is based on science and once physicians are in practice they must be able to understand and critically evaluate scientific studies. Whether or not actually conducting research is necessary to develop this competency is debatable. For some trainees whose career goal is community practice, the time devoted to the research component of training might be better spent in other relevant scholarly activities in areas such as health care quality measurement, safety and risk assessment, or (for those intending to enter academia and teaching) education theory. None of this is to diminish the value of the 6-month research experience, especially for those trainees considering an academic career. It is simply to recognize that many trainees could spend this time productively in other scholarly endeavors.

The task force agreed that the 18 + 18 focused practice model will not make one a competent investigator. National Institutes of Health training grant holders are required to spend 24 months of training in research; however, 1 year of general gastroenterology/hepatology plus 2 years focused on research does not meet the requirements for competency in gastroenterology/hepatology. Training competent gastroenterology/hepatology scientists is complicated further by funding issues and differs from the training of clinical subspecialists. Thus, although the importance of research training was recognized, the task force made no specific recommendation in this regard.

**TRAINING GASTROENTEROLOGICAL ONCOLOGISTS**

A recent AGA report on the future of gastroenterology included among its recommendations that gastroenterologists...
consider becoming involved in the treatment of digestive cancers rather than limiting their activities to cancer screening, diagnosis, and staging. Expanding gastroenterology/hepatology practice in this manner could benefit both clinicians and patients. However, the report noted that one cannot just “dabble” in gastrointestinal oncology; dedication, comprehensive training, and continuing education will be required. With regard to training, digestive oncology could be a Focused Practice opportunity, as noted earlier. The task force agreed that it is not reasonable or logical to include a comprehensive oncology curriculum in a gastroenterology/hepatology training program. However, it is quite feasible to develop a training program with a gastrointestinal oncology Focused Practice option, considering that hematology and nondigestive cancers will be excluded. This option could be available within the 18 + 18 model described earlier.

**Recommendation 6**

The task force recommends that, as an option, training programs offer a Focused Practice option in gastrointestinal and hepatobiliary oncology that is competency based and is available during the final 18 months of training. A Focused Practice designation could be obtained subsequently through the Maintenance of Certification process, as described earlier.

**SUMMARY**

In summary, the task force recommends that the 4 gastroenterology/hepatology societies work with the ABIM to develop a competency-based curriculum that incorporates the Maintenance of Certification process to accommodate the need and desire for training and subsequent practice in specific areas of gastroenterology/hepatology. Given the increasing complexity of treating digestive diseases, allowing trainees the opportunity to develop enhanced ability and experience in specific disease areas or procedures will benefit patients. By developing these training pathways, training programs will need to measure the achievements of trainees in terms of specific defined competencies rather than the duration of training alone.

**DISCLOSURE**

All authors disclosed no financial relationships relevant to this publication.

Abbreviations: AASLD, American Association for the Study of Liver Diseases; ABIM, American Board of Internal Medicine; ACG, American College of Gastroenterology; AGA, American Gastroenterological Association; ASGE, American Society for Gastrointestinal Endoscopy; IBD, inflammatory bowel disease.

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