

VIEWPOINT

Hepatopancreatobiliary Surgery Fellowships

How Many Do We Need?

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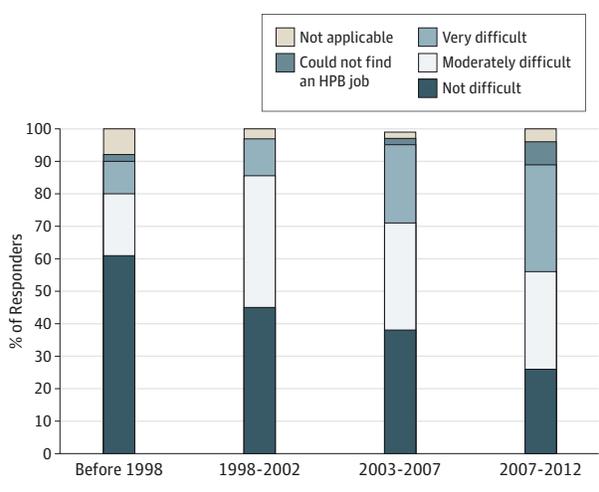
As **hepatobiliary** and pancreatic surgery outcomes have improved, with patient mortality approaching 1% to 3% for these complex procedures when performed by high-volume surgeons in high-volume centers, the practice of hepatopancreatobiliary (HPB) surgery has grown. Data on the volume of pancreatic and hepatic resections performed between 2006 and 2010, extrapolated from the Nationwide Inpatient Sample,¹ demonstrates an increase in the number of procedures performed by 33% and 69%, respectively. Concomitant with this growth has been the emergence of formal training in the field of HPB surgery, and consequently a dramatic increase in the number of HPB surgeons trained. Historically, general surgery or surgical oncology training provided the majority of surgeons performing these operations and providing care for patients with HPB surgical disease. Over the last 2 decades, however, there has been the emergence of dedicated formal training in HPB surgery, as well as focused tracks in HPB surgical training within surgical oncology and abdominal transplantation fellowships.

Since the initiation of a formal accreditation pathway for HPB fellowships in 2003, the number of accredited HPB fellowships has increased to 19,² with an additional 21 transplant fellowships offering formal pathways for hepatobiliary (n = 10) or HPB (n = 11) training.³ Surgical oncology fellowships have recently transitioned to formal training and certification in the field of complex general surgical oncology, and as such are not formally tracked for training in HPB surgery. It is anticipated, however, that several of these accredited complex general surgical oncology fellowships⁴ will continue to provide

robust training in HPB surgery. Thus, conservatively, it is estimated that at least 50 graduating fellows are entering the workforce each year in search of HPB-focused practices. In a 2015 analysis of the HPB workforce,¹ which surveyed 654 HPB surgeons, 416 respondents (66%) reflected on how difficult it was to identify an HPB-focused practice on completion of training. As shown in the **Figure**, graduating HPB fellows are having an increasingly difficult time identifying an HPB-focused practice.¹ It is not clear, however, whether this perception of increasing difficulty relates to unrealistic expectations regarding the practice they will enter or a true saturation of the market. Interestingly, in this same study, practicing HPB surgeons note that approximately 50% of their practice is composed of non-HPB surgical care.¹ Not surprisingly, the training pathway tends to predict what will compose the other 40% to 50% of their practice, eg, non-neoplastic gastrointestinal or HPB surgery, other surgical oncology, or abdominal transplant.^{1,5}

This diversity of training pathways in HPB surgery is likely a very positive situation, in that it provides flexibility for surgeons entering the workforce and provides patients with a greater variety of options and access to care. However, this heterogeneity in training also creates difficulty in terms of setting both training (accreditation) and certification standards for individual fellow graduates, as there is a lack of clarity as to what constitutes a well-trained HPB surgeon. Responsible management of the production of HPB surgeons is also difficult in this environment, as it is impossible to decrease production in a setting of saturation or overproduction unless all 3 training pathways simultaneously

Figure. Perceived Degree of Difficulty in Obtaining a Hepatopancreatobiliary (HPB) Surgery Focused Position



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work toward this goal. Given that complex general surgical oncology fellowships are not specifically tracked for HPB training, but rather this training is embedded in the broader training for surgical oncology, this becomes an even more complex undertaking. Overtraining carries a significant risk for patients primarily. As clear volume-outcome relationships have been established for HPB surgery at both the surgeon and institution level,⁶⁻⁸ overtraining will inherently work against regionalization of HPB surgical care as graduating fellows accept positions in hospitals that lack appropriate infrastructure and support to safely deliver this care. It is anticipated that this decentralization of HPB surgical care will lead to worsening patient outcomes and dissatisfaction for new surgeons entering the field.

In an effort to address this concerning trend, the 3 major societies that oversee the training pathways for HPB surgery have joined together to explore the concept of potentially developing common training and certification standards for the future. On October 27, 2014, the Americas Hepatopancreatobiliary Association,

the American Society for Transplant Surgeons, and the Society of Surgical Oncology held a very successful consensus conference on training in HPB surgery. The goal of this conference was to explore whether standard HPB training requirements could be developed and agreed upon, regardless of training pathway. These training requirements could then potentially translate into certification requirements for graduates of HPB fellowships from any pathway. The final recommendations of this consensus conference are forthcoming and will serve as a platform on which future discussions and collaborations can grow. Standardization of training requirements for HPB may serve as the first step in developing a cohesive workforce strategy for the production of HPB surgeons. Standardization will allow for elevation of training standards for both programs and individuals, which will naturally lead to the graduation of fewer but better-trained HPB surgeons to serve patients with hepatopancreatobiliary disease.

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