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CORR Insights®: Are Recently Trained Tumor Fellows Performing Less Tumor Surgery? An Analysis of 10 Years of the ABOS Part II Database

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Where Are We Now?

Building upon their 2015 survey paper [5], the authors of the current study raise the controversial issue of whether there are too many orthopaedic oncologists being educated in fellowship pro-

grams. It is hard to answer this question conclusively, but the implications are clear; since the incidence of sarcoma is constant and the number of fellowship trained orthopaedic oncologists is increasing, we must ask: Is patient safety being compromised due to decreasing specialty specific case-loads of the average musculoskeletal oncology surgeon?

In their 2015 survey, Miller and colleagues [5] found that when comparing AAOS fellowship trained surgeons early in their careers, the tumor surgeon performed less cases in volume and percentage than a col-

league trained in sports or joints, for example [1]. They also observed that because orthopaedic oncologists younger than 40 years of age did not perform many tumor cases, they performed a higher percentage of procedures outside their specialty fellowship's scope of practice. The data set was limited by nonresponder bias in that only some surgeons responded to their survey and no one responded from large urban centers like New York, Los Angeles, or Chicago.

The authors of the current study observed that the numbers of fellowship trained orthopaedic oncologists are increasing, but the percentages of tumor cases performed are decreasing. While this trend is certainly compelling, it is not unforeseen. The founding members of Musculoskeletal Tumor Society (MSTS), in podium discussions at MSTS meetings and executive committee meetings, mentioned their concerns regarding producing too many fellows in a low-volume specialty during the 1990s. This was likely in response to the

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Society of Surgical Oncology's attempt in the prior decade to recognize a subspecialty certificate in surgical oncology [4], an attempt that never came to fruition.

The MSTS founding members feared that the average orthopaedic oncologist would have a diluted sarcoma experience and thus not manage enough patients with sarcomas to maintain top-shelf competency. But legal concerns about restraint of trade precluded any attempts at limiting fellowships. It appears the founders' concerns may have been realized for us and many surgical oncology societies.

Where Do We Need To Go?

How do we as a group of responsible patient-centered physicians simultaneously balance the quality and quantity thresholds of capable orthopaedic oncologists against the freedoms of physicians and fellowship programs to pursue specialty practice in areas of their interests? Many, but not all, orthopaedic oncology fellowship programs have ACGME accreditation, which is a rigorous standard to obtain and maintain. Additional board certification might help keep us from flooding the market. However, there is no data that demonstrates that additional board certification reduces the

number of surgical oncologists. Other subspecialty surgical oncology societies such as thoracic surgery have created their own boards with their own certification processes [6]. Early specialization in surgical training has also been tried in vascular and thoracic surgery by focusing on the subspecialty earlier in residency [2].

The American Board of Surgery implemented the Complex General Surgical Oncology Certificate in 2014 [3], which requires passing another Board sponsored written and oral examination. It is offered only at ACGME approved fellowships and no 'grandfathering' is allowed. Other surgical cancer specialties such as thoracic, otolaryngology and gynecology do offer comprehensive surgical oncology training programs. Some have even discussed a focused training program that combines residency and fellowship into one educational experience.

How Do We Get There?

Should orthopaedic surgeons pursue a similar strategy? Should we pursue a certificate of added qualification? A new board? Focused residency program that emphasizes the knowledge and skill set of the targeted fellowship early in the residency? Or should we allow natural market forces, patient

self-determination, and access prescribe the optimal number of orthopaedic oncologists? The founders of the MSTS allowed freedom of choice to rule rather than burdensome regulation. Knowledge gained from studies like the one from Miller and colleagues is always helpful and desirable. But until hard evidence exists that our current system of producing orthopaedic oncologists is failing or patient safety is a risk, impulsive actions are not necessary. At a fundamental level, the concepts espoused by the MSTS founders seem ever wiser today.

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