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# Gynecologic Oncology Reports

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## The more things change, the more they stay the same: The necessity of ensuring gynecologic oncologists remain surgical experts in a changing healthcare environment

The training and practice landscape for gynecologic oncologists has changed rapidly and radically over the last decades with profound implications for both our workforce and our patients. Gynecologic oncology fellows appear to be graduating with less experience and less confidence in their ability to perform complex surgical procedures as highlighted by Nguyen et al's article, "Perspectives of Gynecologic Oncology Fellowship Training and Preparedness for Practice" in this issue of *Gynecologic Oncology Reports* (Nguyen et al., 2024). Additionally, the vast expansion of the number of gynecologic oncology fellowship graduates and the increasing percentage of benign surgery performed by most gynecologic oncologists will further impact the surgical care our specialty provides, potentially in an adverse manner, and it is incumbent upon our specialty to ensure that we maintain surgical excellence.

Practice makes perfect and adequate surgical volume both in training and beyond remains the backbone of surgical expertise. Numerous publications confirm that low volume surgeons have worse outcomes (Mowat et al., 2016) and all surgeons aspire to attain outstanding surgical results and are unlikely to continue to perform procedures for which they lack confidence (Mowat et al., 2016). The majority of recent fellowship graduates remain uncomfortable with urinary conduit formation, ureteroneocystostomy, and exenterations as Nguyen et al. demonstrated in their article and this is unsurprising given their total fellowship surgical numbers (Nguyen et al., 2024). Based on the 2022 Accreditation Council for Graduate Medical Education (ACGME) case log data of 55 gynecologic oncology fellowship programs and 73 fellows, the median number of urinary conduits performed during fellowship was 1 (range 0–9) and exenterations was 4 (range 0–14) for fellows graduating in 2022 (ACGME Gynecologic Oncology Case Logs, 2022). Perhaps a more worrisome issue in Nguyen's article is that only 76 % of individuals felt comfortable performing a radical hysterectomy. Again, based on this ACGME gynecologic oncology case log report, the median total radical hysterectomies for a graduating gynecologic oncology fellow was 15 (range 1–119) and 1,486 total radical hysterectomies were reported but only 47 % of those were performed for cervical cancer (701/1486). National data confirm that the number of radical hysterectomies continues to decrease (26 % drop from 2000 to 2017 in a US tumor registry) as well (Matsuo et al., 2021). On a positive note, most of these recent fellow graduates surveyed felt comfortable with standard staging procedures (69–99 %) and providing cancer-direct therapies such as chemotherapy or immunotherapy (84–99 %) (Nguyen et al., 2024). Of note, Scribner et al published a similar survey 20 years ago and showed the same concerns about ileal conduits/exenterations (clearly this is not a new issue) (Scribner et al., 2001). At that point in time, one of the other biggest fellow concerns was low numbers of

laparoscopic nodes but that issue has been solved given that this is the most common staging procedure performed by current fellows (Nguyen et al., 2024).

Gynecologic oncology has historically been an extremely competitive specialty and there were about 20 fellowship programs in the 1990's and had expanded to 33 fellowship programs by 2000 (Scribner et al., 2001). The number of fellowships has further doubled in the intervening 20 years and this continued growth is perhaps fueled by the increased ease of gaining fellowship accreditation after the transition from ABOG to ACGME. As of 2022, there were 67 programs and new fellowship programs increased by nearly 25 % just over the last 5 years. As a likely result, in the 2023 match, there were very few unmatched applicants and virtually everyone who applied for a gynecologic oncology fellowship could attain one. Residents are also graduating from residency with fewer procedures than in years past and that may be fueling the desire of residents to pursue additional surgical training prior to going out into practice. With continued lower volumes of more complicated procedures and an increasing complement of gynecologic oncologists, other measures will need to be utilized to help our graduates realize their full surgical potential. This problem is not unique to gynecologic oncologists as most surgical disciplines and societies continue to investigate methods to supplement surgical training. There is no true substitute for actually operating; however, there are tools to maximize a trainee's learning opportunities and potentially optimize their preparedness for the operating room. A systematic review of 22 studies demonstrated that video-based teaching improved the knowledge and skills of trainees along with their satisfaction scores and another study demonstrated that video-based education improved confidence in the operating room and efficiency in training (Youssef et al., 2023; Mao et al., 2022).

Depending on the source of data, the percentage of a gynecologic oncology surgical practice that is "benign" surgery can range from 30 to 70 %; some of these procedures are oncology adjacent (e.g. pre-invasive disease or concerning pelvic masses) but some are simply difficult surgeries that are beyond the skill level of our referring physicians (eg. placental accreta spectrum, BMI over 50 kg/m<sup>2</sup>, endometriosis, adhesions, etc.). Of note, in looking at the same ACGME data for procedures performed within the 55 gynecologic oncology programs in 2022, there were 19,594 reported simple hysterectomies and 32 % were for benign reasons; if preinvasive disease and procedures for other non-gynecologic cancers were counted as benign hysterectomies, that number rises to 46 %. Some benign surgery may also be driven by gynecologic oncologists for a myriad of reasons; for example, to avoid being surgical backup without reimbursement, to keep surgical volumes high, to incorporate less stressful surgeries/patients, or to be collegial to referring physicians.

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Additionally, there has been a decrease in some of the radical procedures done nationwide (e.g. exenterations and radical hysterectomies) which could play into the increased percentage of benign surgeries done by gynecologic oncologists. Moreover, a study from 2010 projecting the needs of gynecologic oncologists demonstrated that with increasing fellow graduates, there will be continued decline in the annual number of cancer cases per gynecologic oncologist in practice and this study predated the explosion of fellowship programs and likely under-predicted (Wallace et al., 2010). Whether increasing numbers of benign surgeries in gynecologic oncology is considered good or bad is in the eye of the beholder and will be a point for our society to continue to discuss.

Providing excellent surgical training for the next generation of gynecologic oncologists remains of paramount importance to our entire specialty and it is clear we will need to rely on more than simply trying to increase the volume of oncologic cases based on the above trends. Leveraging simulation options, incorporating video learning and surgical video feedback, and tracking residents into gynecologic or obstetrics tracks earlier in training are all options that merit increased attention and study. Additionally, we will need to ensure the uniformity of the gynecologic fellowship experience so that every graduating fellow has the necessary skill set to be successful in their chosen field. While difficult to admit, our specialty should continue to become more interdisciplinary with our urology, colorectal and plastic surgery colleagues for the procedures we no longer perform routinely. Above all, our specialty must prioritize patient care outcomes and continue to focus research on delineating and improving all factors, including surgical training, that impact the quality of gynecologic surgical outcomes.

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