



# More accurate reporting of surgical techniques would be SUPER

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Surgical education entails learning to care for patients in and out of the operating theater. Clinically, this encompasses everything from the preoperative work-up to managing potential postoperative complications. In the operating room, surgical technique includes common, widely applicable skills, like how to square a knot, but also the more nuanced anatomical considerations of each operation, intra-operative decision-making, and ways to adapt when faced with the unexpected. Historically, surgical technique was taught through the apprenticeship model with knowledge passed down from attending to trainee and through textbooks written by surgical masters. This mode of learning/teaching is still the enduring structure of most residency programs. However, similar to how the printing press provided an avenue for information to be disseminated across the globe in a more standardized manner, technology has done the same for surgical education. Rather than being completely dependent on learning from the attendings in one specific training program, trainees are increasingly utilizing widely available video platforms for educational purposes. As lifelong learners, this is also true for attending surgeons. There is a clear benefit to using video to demonstrate new surgical techniques or record operations that are rarely performed. With medical knowledge growing at an exponential rate, it is more important now than ever to have accurate, detailed information accessible throughout

the surgical community (1).

There is also a benefit in establishing a universal reporting guideline relative to surgical technique in the peer reviewed literature. Detailed reporting of surgical technique in clinical studies/trials is key to accurately evaluate study design, as well as provide quality assurance and the ability to replicate a proposed technique by others in the surgical community. Accurate information on surgical technique may be particularly important in the dissemination of information from high volume centers to low volume or community settings. Care at high volume centers has been repeatedly associated with improved surgical outcomes (2,3). Improved outcomes are partially attributed to a multidisciplinary approach and more experience with the nuances of caring for patients with the same disease process or who require the same operation. Improved outcomes at high volume centers are also likely related to the intra-operative surgical technique utilized by expert surgeons who are performing certain operations at a high frequency.

Traditionally, there has been variable quality in the reporting of surgical technique. Due to the breadth of surgical specialties and operations, establishing a singular reporting guideline that is both detailed and applicable to all procedures has proven to be difficult. In 2006, the Enhancing the Quality and Transparency of Health Research (EQUATOR) Network was established in an

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attempt to provide reporting guidelines to improve clarity, accuracy, and transparency of published data (4). While these guidelines have improved the quality of published literature in general, the surgical reporting guidelines are often incomplete and lack necessary details. More recently, the American College of Surgeons and the Alliance for Clinical Trials in Oncology has put forth “*Operative standards for cancer surgery*” (5-7). This manual provides a comprehensive, evidence-based examination of cancer surgery techniques and defines protocols and techniques that are critical to achieve optimal outcomes in a cancer operation. This manual clearly describes the surgical activities that occur between skin incision and skin closure that directly affect cancer outcomes.

In this article, Zhang *et al.* proposed a new method to report surgical technique in the literature—the so called “Surgical technique rePorting chEcklist and standaRds (SUPER)” guideline (8). The goal of the SUPER guideline is not to comment *per se* on the surgical technique being proposed; rather, the guideline seeks to provide a structured framework to improve reporting of surgical technique whether in written and/or video format. The proposed guideline is comprised of 22 items related to various components of an operation, including indication/workup, preoperative planning, surgical technique, and postoperative care. The SUPER guideline has several strengths. In particular, the guideline was developed using the Delphi technique, an iterative process with multiple rounds of surveys and revisions. To the authors credit, the guideline was created in collaboration with a multidisciplinary team of surgeons, journal editors, and methodologists. The guideline was developed with representatives from different professions, geographic locations, specialties, gender, and years of experience with the hope that it would be representative of the broader community and widely applicable in different settings. In fact, surgeons from 13 different countries/regions and a wide range of specialties were included; several of the surgeons had previous experience reporting on surgical technique. Importantly, the guideline breaks down the overall episode of care related to surgical patients into focused sections across the continuum of the clinical course. In turn, the SUPER guideline has the potential to help standardize the surgical technique reporting process by providing an organized, detailed framework. Such a guideline promotes transparency, while also allowing for variation and personalized information to be included in the report.

Unfortunately, while there has been an increase in

adherence to reporting guidelines in recent years, many journals still do not enforce or require that authors follow them (1,9). The SUPER guideline offers an opportunity for more transparent and precise reporting of surgical techniques in the surgical literature. As such, this helps address the need for more detailed, universal reporting guidelines, yet application and enforcement of these guidelines will be required. The SUPER guideline will only improve reporting of surgical techniques in the literature if the editorial community endorses and requires the universal use of reporting guidelines as a publication requirement. Perhaps one way to promote the use of reporting guidelines may be through surgical societies or the American College of Surgeons. To this point, as noted above, the American College of Surgeons and the Alliance for Clinical Trials in Oncology have identified the accurate, routine, and standardized reporting of operative details to be imperative. Having other surgical societies endorse reporting requirements such as the SUPER guideline for video submissions/publication related to new surgical techniques would help create more transparency, standardization, as well as accurate dissemination of novel emerging surgical techniques. Creating standards around the reporting of surgical techniques can lead to standardizing surgical procedures and the establishment of measurable metrics for what constitutes “optimal” surgical care—ultimately leading to better surgery and improved care for our patients.

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