

# Implementing a resident acute care surgery service: Improving resident education and patient care

Olga Kantor, MD, MS,<sup>a</sup> Andrew B. Schneider, MD,<sup>a</sup> Marko Rojnica, MD, MBA,<sup>a</sup> Andrew J. Benjamin, MD,<sup>a</sup> Nancy Schindler, MD, MPHE,<sup>b</sup> Mitchell C. Posner, MD,<sup>a</sup> Jeffrey B. Matthews, MD,<sup>a</sup> and Kevin K. Roggin, MD,<sup>a</sup> Chicago and Evanston, IL

**Background.** To simulate the duties and responsibilities of an attending surgeon and allow senior residents more intraoperative and perioperative autonomy, our program created a new resident acute care surgery consult service.

**Methods.** We structured resident acute care surgery as a new admitting and inpatient consult service managed by chief and senior residents with attending supervision. When appropriate, the chief resident served as a teaching assistant in the operation. Outcomes were recorded prospectively and reviewed at weekly quality improvement conferences. The following information was collected: (1) teaching assistant case logs for senior residents preimplementation ( $n = 10$ ) and postimplementation ( $n = 5$ ) of the resident acute care surgery service; (2) data on the proportion of each case performed independently by residents; (3) resident evaluations of the resident acute care surgery versus other general operative services; (4) consult time for the first 12 months of the service (June 2014 to June 2015).

**Results.** During the first year after implementation, the number of total teaching assistant cases logged among graduating chief residents increased from a mean of  $13.4 \pm 13.0$  (range 4–44) for preresident acute care surgery residents to  $30.8 \pm 8.8$  (range 27–36) for postresident acute care surgery residents ( $P < .01$ ). Of 323 operative cases, the residents performed an average of 82% of the case independently. There was a significant increase in the satisfaction with the variety of cases (mean 5.08 vs 4.52,  $P < .01$  on a 6-point Likert scale) and complexity of cases (mean 5.35 vs 4.94,  $P < .01$ ) on service evaluations of resident acute care surgery ( $n = 27$ ) in comparison with other general operative services ( $n = 127$ ). In addition, creation of a 1-team consult service resulted in a more streamlined consult process with average consult time of 22 minutes for operative consults and 25 minutes for nonoperative consults (range 5–90 minutes).

**Conclusion.** The implementation of a resident acute care surgery service has increased resident autonomy, teaching assistant cases, and satisfaction with operative case variety, as well as the efficiency of operative consultation at our institution. (Surgery 2016;■■:■■-■■.)

From the Department of Surgery,<sup>a</sup> University of Chicago Medicine, Chicago; and Department of Surgery,<sup>b</sup> NorthShore University HealthSystem, Evanston, IL

Presented as a Quick-Shot Presentation on February 4, 2016, at the 11th Annual Academic Surgical Congress in Jacksonville, FL.

Accepted for publication September 24, 2016.

Reprint requests: Kevin K. Roggin, MD, Professor, Surgery and Cancer Research, Program Director, General Surgery Residency Program, The University of Chicago Medicine, 5841 S. Maryland Ave., Room G-216, MC 5094, Chicago, IL 60637. E-mail: [kroggin@surgery.bsd.uchicago.edu](mailto:kroggin@surgery.bsd.uchicago.edu).

0039-6060/\$ - see front matter

© 2016 Elsevier Inc. All rights reserved.

<http://dx.doi.org/10.1016/j.surg.2016.09.033>

OPERATIVE EDUCATION STRUCTURE is evolving due to substantial changes in work hours and increased focus on quality and patient safety.<sup>1,2</sup> In the age of work hour limitations and increased oversight, one of the struggles for surgical residency training programs, especially at academic medical centers, is resident autonomy. This has been addressed by the 2004 Blue Ribbon Committee in a joint effort by the American Surgical Association, the American College of Surgeons, and the American Board of Surgery,<sup>3</sup> and starting in 2015 the American Board of Surgery changed the requirements for graduating chief residents to require at least 25 cases logged as a teaching assistant (TA).<sup>4</sup>

TA cases can be used as a proxy for autonomy inside of the operating room, as a TA case is defined as acting as an assistant to guide a more junior trainee through the procedure.<sup>4</sup> One study examining Accreditation Council for Graduate Medical Education (ACGME) case logs from graduating chief residents found that TA cases decreased by 79%, from a median of 126–27 per resident from the year 1999–2012.<sup>5</sup> A recent survey of residency program directors found that 88% thought their chief residents completed the majority of cases under supervision, but only 12% stated that the chief resident also acted as a teaching assistant.<sup>6</sup> Decreasing autonomy in surgical residency also seems to be a problem for new fellows entering subspecialty training. A survey of subspecialty fellowship program directors found that 38% of program directors thought their fellows demonstrated a lack of patient ownership, 30% were unable to perform a laparoscopic cholecystectomy independently, and 66% thought their fellows were unable to operate for 30 unsupervised minutes in a major procedure.<sup>7</sup>

Acute care surgery (ACS) teams have evolved in an effort to restructure operative training programs as well as to consolidate the consultation process. ACS services have become increasingly popular as a way to focus consultations and improve general surgery operative experiences for residents.<sup>8</sup> Studies of the implementation of ACS at other institutions have demonstrated an increase in general surgery cases logged by residents,<sup>9,10</sup> enhanced perceptions of resident education,<sup>11–13</sup> and improved patient outcomes in common cases such as laparoscopic appendectomies and cholecystectomies.<sup>14,15</sup> However, most ACS services have been described at trauma centers and are managed by dedicated ACS surgeons. No reports to date have described a primarily resident-managed ACS service.

In light of the changing national surgical landscape and training requirements, and in an effort to expand the resident education experience to allow for increased autonomy in both the operating room and perioperative setting, our program implemented a resident-managed resident acute care surgery (RACS) consult service. The goals of this service were to create a sustainable system that could improve the efficiency of consultation, increase resident autonomy in a supervised environment, while ensuring high quality and safe care for our patients. In this study, we describe our first year of experience with the RACS service and its effect on TA case logs, resident satisfaction, and patient care at our institution.

## METHODS

**RACS service structure.** With the creation of RACS, we implemented a new admitting service that would staff all operative consults (from both the emergency department and the inpatient services) at our academic medical center. This was a change from the previous call model, during which the attending on consult (for a 24-h period) would admit the consult patient to their subspecialty service. The RACS service consisted of a team of an attending surgeon, a chief resident (postgraduate year 4/5), a junior resident (postgraduate year 2) as well as 2 surgical physician assistants that covered overlapping daytime shifts. The RACS service was covered at nights and on weekends by our “night float” team that had a similar structure and resident complement. A set of guidelines were created to outline optimal communication explicitly during change of shifts and to improve intraprofessional collaborative practice. To be eligible to participate as a chief on the RACS service, all general surgery residents had to receive approval from the program director on the basis of the trainee’s prior evaluations, formal intraoperative assessments, case log experience, and ACGME milestone progress. Residents rotated through the service on a monthly basis. The service was supervised by an alternating consultation attending. For the first 6 months of service, the attending on call rotated every 24 hours. This was transitioned to a weekly day shift rotation after the first 6 months. The attending call model is described in Fig 1. This service structure allowed for the senior resident to serve as the patients’ primary physician/surgeon in both the operating room and for all perioperative care, while still having appropriate and consistent attending supervision to maximize patient safety. All major perioperative decisions were discussed with and approved by the attending, and the attending on call rounded on patients daily. Operative cases that were at an appropriate complexity level were performed as a TA case, with the senior resident taking the junior resident through the case and the attending present in the operating room during key portions of the procedure. A set of resident expectations, service goals and objectives, and a detailed consult policy was created and distributed to all residents rotating on the service. Very complex cases were dealt with on a case-by-case basis, and when deemed appropriate transferred to a specialty service after initial evaluation and attending determination.

Download English Version:

<https://daneshyari.com/en/article/5734854>

Download Persian Version:

<https://daneshyari.com/article/5734854>

[Daneshyari.com](https://daneshyari.com)