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# Utilization of morning report by acute care surgery teams: results from a qualitative study

**Patricia L. Pringle, M.D.[a], Courtney Collins, M.D.[b], Heena P. Santry, M.D., M.S.[b,c,*]**

*[a]University of Massachusetts Medical School, Worcester, MA, USA; [b]Department of Surgery, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, MA, USA; [c]Department of Quantitative Health Sciences, University of Massachusetts Medical School, Worcester, MA, USA*

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**Abstract**

**BACKGROUND:** The rigor of handoffs is increasingly scrutinized in the era of shift-based patient care. Acute care surgery (ACS) embraced such a model of care; however, little is known about handoffs in ACS programs.

**METHODS:** Eighteen open-ended interviews were conducted with ACS leaders representing diverse geographic and practice settings. Two independent reviewers analyzed interviews using an inductive approach to elucidate themes regarding use of morning report (using NVivo qualitative analysis software).

**RESULTS:** Twelve of 18 respondents reported using morning report, but only 6 of 12 included attending surgeon–to–attending surgeon handoffs. One of 12 incentivized attending surgeons to participate, 2 of 12 included nursing staff members, and 2 of 12 included physician extenders. Cited benefits of morning report were safe and effective information exchange (2 of 12), quality improvement (2 of 12), multidisciplinary discussion (1 of 12), and resident education (2 of 12). Three of 12 respondents cited time commitment as the main limitation of morning report.

**CONCLUSIONS:** Morning report is underused among ACS programs; however, if implemented strategically, it may improve patient care and resident education.


The rigor of patient handoffs has come under increasing scrutiny as more and more providers adopt shift-based models of care.[1] The advent of resident duty-hour restrictions has increased the total number of patient handoff interactions and has brought the issue of sign-out communication to the forefront of national attention.[1–3] The impact of interphysician communication on the quality of patient care has been well documented.[1–10]

Duty-hour restrictions have challenged training programs to educate their residents in less time while maintaining continuity of care for patients.[1–4,6–9] Although the bulk of patient handoff literature is generated from internal medicine and emergency medicine departments, the duty-hour restrictions have forced surgery departments to consider measures to consolidate trainee education time and expedite patient handoffs.[1,3,8,10–16] In the context of duty-hour restrictions, some general surgery programs

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* Corresponding author. Tel.: +1-508-856-1168; fax: +1-508-856-4224.
E-mail address: heena.santry@umassmemorial.org

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have shown that morning report can be an opportunity to effectively educate residents as well as transfer care of patients.[2,8]

In parallel with this growing consideration of morning report as an opportunity to enhance interphysician communication and patient hand-offs, acute care surgery (ACS) has emerged as a new general surgery subspecialty, encompassing the care of patients suffering from injuries and nontrauma surgical emergencies (NTSEs) as well as surgical critical care. Modeled after nearly 40 years of evidence on team-based trauma care, ACS has been shown to improve operating room utilization and departmental revenues while reducing emergency room wait times, time to operation, length of stay, and mortality for NTSEs without adverse effects on injured patients.[17–26] However, little is known about how ACS teams ensure interphysician communication and patient handoffs.

Anecdotally, trauma programs have long used morning report to present new patients and discuss existing patients. Thus, it is possible that some of the benefits of the ACS model for patients with NTSEs are due to improved patient handoffs and enhanced interphysician communication during morning report. Given the absence of data on whether the practice of morning report has been carried forward in this new surgical subspecialty, we undertook a qualitative study to describe how, if at all, centers with ACS programs are using this tool. This was an exploratory study designed to increase our understanding of the perceived advantages and disadvantages of morning report within the new model of ACS.

## Methods

We conducted a qualitative study to describe the utilization of morning report in ACS programs implemented in varied geographic locations and practice settings.

### Participants

A purposive sampling method was used to recruit senior leaders who would be able to describe how they had implemented ACS programs. Specific geographic regions (the Mid-Atlantic, the Midwest, New England, the Northeast, the South, and the West) and practice types (community, public or charity, university) were targeted to ensure a diversity of opinion for comparison such that each region contained a respondent from each of the 3 types of practice settings. Potential respondents were selected from the ranks of national organizations or recommended by colleagues. In other words, once a geographic region was selected, we contacted department chairs who were known to us at hospitals with the targeted practice type for recommendations on who at their institutions was in charge of ACS, if indeed their hospitals had implemented ACS. If we did not have a professional contact at a targeted site, we used the rosters of national surgical associations to make similar inquiries. Sites without ACS teams were not included. Recommended leaders at the remaining sites were contacted by e-mail and asked to participate in face-to-face interviews about how they practice ACS at their hospitals for a qualitative research study on ACS practice patterns. Strict measures to ensure confidentiality were implemented and described to participants. An agreed-upon date and time for an interview was considered a waiver of written informed consent. This study was deemed exempt from full review by the institutional review board of the University of Massachusetts Medical School.

### Interviews

One investigator (H.P.S.) created the semistructured interview on the basis of clinical experience and an extensive literature review. The interview addressed a range of topics concerning ACS practice patterns: infrastructure, communication, team structure, evolution of ACS, and resources (see the Appendix). The interview was piloted on senior acute care surgeons at centers familiar to the investigator and altered in an iterative fashion. Between June 2011 and December 2011, this investigator conducted 18 in-person interviews of these ACS leaders who had previously agreed to participate. Fourteen of the 18 participants were current section chiefs or division chiefs for trauma surgery and/or emergency general surgery, 2 participants were department chairs, and 2 were senior surgeons at their sites. All sites had Accreditation Council for Graduate Medical Education general surgery residencies, and 13 sites had Accreditation Council for Graduate Medical Education surgical critical care fellowships at the time the interviews were conducted. None had been formally approved by the American Association for the Surgery of Trauma for an ACS fellowship at the time. The interview questions were open ended, and the interviewer asked for further explanation whenever clarification was needed. Interviews took from 19 to 84 minutes to complete. Interviews were audio recorded with participants' consent, transcribed, and imported into NVivo version 10.0 (QSR International, Melbourne Australia) for qualitative data analysis.

### Data analysis

In conducting our interview analyses, we relied heavily on the qualitative research principles of grounded theory, also known as the inductive approach.[27] The principle of reflexivity was used to better understand our preconceptions to decrease bias in both the interviewing and data analysis stages.[28] Also, we used the strategy of investigator triangulation, whereby team members from diverse backgrounds analyze the raw data to minimize the personal or disciplinary bias of a single researcher.[29]

In the first step of analysis, 2 investigators (P.L.P. and C.C.) independently reviewed each interview transcript. As concepts emerged from the data, the coders used NVivo to