Prospective Analysis of Operating Room and Discharge Delays

Saturday, November 10, 2018
12:00 – 12:15 pm

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Objective:

Upon completion of the lecture, attendees should be better prepared to:
- Describe the most common reasons for delays to the operating room or discharge
- Discuss the potential cost burden of delays in a burn center

Abstract:

Introduction: Delays to the operating room (OR) or discharge (DC) lead to longer lengths of stay (LOS) and increased costs. Surprisingly, little work has been done to quantify the number and cost of delays for inpatients to the operating room, and to discharge to outpatient status. We sought to review our burn admissions and determine how often a patient experiences delays in hospital-based healthcare delivery.

Methods: Data for all burn admissions were prospectively collected from 12/2014 to 11/2016 at a single institution. A quality improvement filter was created to define broadly acceptable parameters for patient through-put. Every hospital day per patient was labeled with the following parameters: 1) No delay, 2) Operation, 3) Delay to the OR, or 4) Delay to DC. (Table 1)

Results: We had 1633 admissions: 432 ICU admissions (26%), 1201 floor admissions (74%). Six hundred and fifteen patients (37.7%) received an operation. Patients with delays included 331 with OR delays (20.3%), and 503 with discharge delays (30.8%). Average delay days included (Mean+SD): OR delay days=4.7+6.2, discharge delay days=4.1+4.4. Total number of hospital days was 13,009, divided into 1616 OR delay days (12%) and 2096 DC delay days (16%). Significant OR delays were due to: patient unstable for OR [n=387,(24%)], OR space availability [n=662,(41%)], indeterminate depth of wounds [n=437,(27%)], and donor site availability [n=83,(5%)]. Significant DC delays were due to: medical goals not reached [n=388,(19%)], pain control and wound care [n=694,(33%)], PT/OT clearance [n=168,(8.0%)], and DC placement delays [n=754,(36%)]. Costs for OR and DC delays based on inpatient operating expenses were $1.6 and $1.4 million respectively, not including physician costs and ancillary services (i.e. pharmacy, radiology, etc.) which would more than double these cost estimates.

Conclusion: Over 40% of our inpatient burn OR delays are due to OR space and time availability, while 36% of our delays to discharge are due to placement delays. Costs of increasing OR capacity and/or additional social work ancillary staff can be justified

through millions of dollars of savings annually. Future work will focus on decreasing these variable delays in order to improve burn patient throughput.

References and Resources:

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Beck MJ, Okerblom D, Kumar A, et al. Lean intervention improves patient discharge times, improves emergency department throughput and reduces congestion. Hospital practice (1995). 2016.

Disclosure:

Tarik D. Madni – No Relevant Financial Relationships to Disclose
Jonathan B. Imran – No Relevant Financial Relationships to Disclose
Audra T. Clark – No Relevant Financial Relationships to Disclose
Holly B. Cunningham – No Relevant Financial Relationships to Disclose
Luis R. Taveras – No Relevant Financial Relationships to Disclose
Maryanne Pickett – No Relevant Financial Relationships to Disclose
Evan Barrios – No Relevant Financial Relationships to Disclose
Paul Rizk – No Relevant Financial Relationships to Disclose
Brett D. Arnoldo – No Relevant Financial Relationships to Disclose
Herb A. Phelan – No Relevant Financial Relationships to Disclose
Steven E. Wolf, MD – No Relevant Financial Relationships to Disclose

Table 1: Delay Parameter Definitions

Delay to OR	1) Index operation occurring after hospital day (HD) two or, 2) For a floor patient, greater than five days between multiple operations or, 3) For an ICU patient, greater than two weeks between multiple operations
Delay to DC	1)Any patient admitted to the floor who did not receive an operation who was discharged after greater than five days or, 2)Any patient who had received their final operation who was discharged after greater than fiver days

Note. A QI filter was created to define broadly acceptable parameters for patient through-put. These parameters were confirmed via a regional Delphi panel of seven burn providers who are members of the Burn Research in Texas (BRIT) Consortium.