Development of a Surgical Site Infection Reporting System for a Small Rural Community Hospital

Laura Bozzuto,[1] Kait Brennan,[2] Greg Ogrinc,[1, 3] Susan Mooney [2]

[1]Dartmouth Medical School, Hanover, New Hampshire; [2] Alice Peck Day Memorial Hospital, Lebanon, NH; [3] White River Junction VA Medical Center, WRJ, VT

AIM

• Understand the surgical site infection (SSI) reporting system at a small rural community hospital with affiliated private surgical practices.
• Explore the barriers, facilitators, and resources needed to develop an effective surgical site reporting system.

BACKGROUND

SSIs are the third most common nosocomial infection in the US. Causing significant morbidity and mortality among surgical patients.[1] While there are strong guidelines for preventing surgical site infections (SSIs) and assessing risk factors, currently there is no "gold standard" reporting system for surgical site infections. The CDC advises that methods chosen by an institution should reflect their individual operations, resources, and needs.[1]

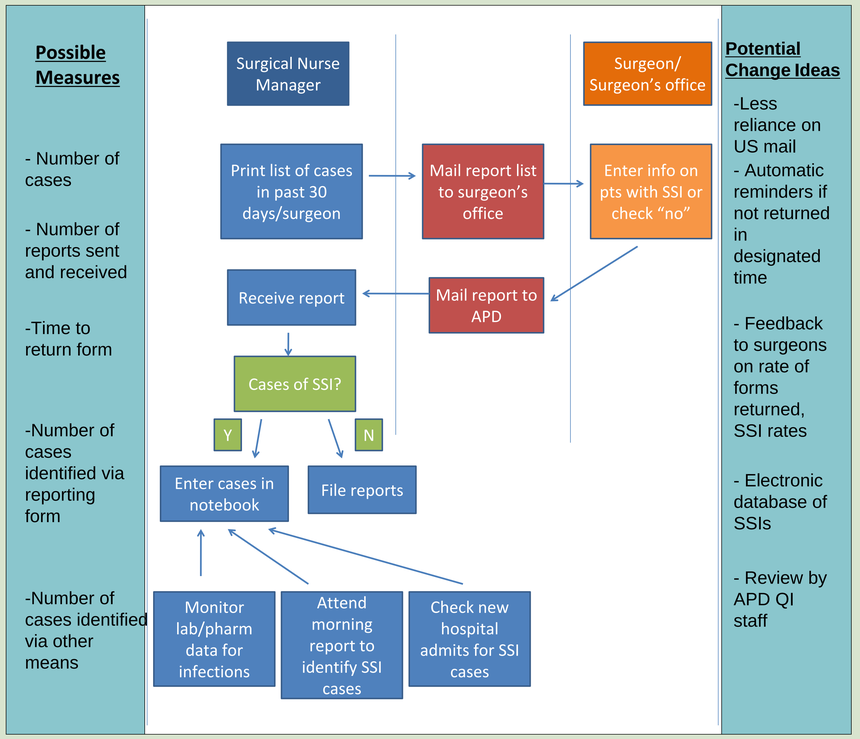
Methods of reporting surgical site infections that have been studied in the literature include direct observation by medical professionals, postal or telephone questionnaire to patients or providers, automatic questionnaires generated for follow-up clinic visits, scanning medical codes for those suggestive of SSI, and chart review.[2,3] Even patient self-diagnosis of SSI showed variability between studies and was generally a poor positive predictor with a value of only 26% correctly identifying SSIs.[2]

Additional challenges arise in the setting of a small rural community hospital with multiple private practice surgeons having operating privileges at Alice Peck Day Memorial Hospital (APD). Questions of who follows patients and how information is communicated back to the hospital arise because of disparate offices, medical records, and locations of patient care.

METHODS

1. Describe current process for SSI reporting
   A. Discuss with process owner
   B. Identify people and structures
   C. Investigate record keeping of SSI reporting
2. Create flow diagram
3. Performed site interviews at a convenience sample of three practices using standardized questions:
   A. How do you know if a SSI occurred in one of your patients?
   B. Do you track or report SSI information? If so, how?
   C. Do you think SSIs are a problem? Why/why not?
   D. APD attempts to collect information on SSIs for surgeries performed in their hospital. They send out a monthly form along with a list of the patients in the last month to surgeons that asks if any infections occurred. What happens to the form when it arrives in your office?
      1) How often do you think you respond within 2 weeks?
      2) What would make it easier for you?
      3) Anything about the form you would change?
   E. APD is looking to improve the current reporting system. What opportunities for improvement do you see?
      1) What would be the easiest way for you to report SSIs?

PROCESS DIAGRAM



RESULTS FROM INTERVIEWS

	Site 1	Site 2	Site 3
Practice Type	Urology, in a small town nearby	General surgery, in community hospital	Orthopedics, in community hospital
Number of Surgeons	1	3	2
Number of Staff	5	7	4
SSI detection	• Follow up appointments • Patients call office	• APD infection control reporting	• APD infection control reporting • Patients call office
SSI tracking at site	Surgeon medical note	APD SSI report form	• No tracking within office • APD SSI report form
What happens when the Hospital reporting form arrives at your office?	Hasn't seen the form, unknown if it is returned	Office manager fills out form and returns to infection control office	Goes into surgeon's "to do" pile, then surgeon sends back to APD
Easiest way to report SSIs?	Unknown	This is a good system	This is a good system
Do you think SSIs are a problem?	No, cannot remember last time one occurred. It is a rare issue.	No	No
How long does it take to send back APD SSI form?	Unknown	Unknown, have not received it in a while	48-72h

CONCLUSIONS

- Examination of SSI reports revealed sporadic collection of reports without information indicating which months they were collected from and which sites returned them.
- Without an effective reporting strategy and record keeping, systematically improving the process is not possible.
- Awareness of the true infection rates is a key component of SSI reporting. This small sample of practices was not aware of the local SSI rate or the importance of tracking SSIs.

DISCUSSION

"Upstream work," such as getting buy in from key stakeholders, establishing a process that can be tracked, and creating a database for that information is important to be able to engage in a process to improve SSI reporting.

Two of the major barriers to establishing a successful SSI reporting system are the variability of utilization of the process and the difficulty standardizing the process across multiple individual practices. Interviewing only a small of a selection of sites revealed a variety of impressions and utilizations of the process, including being unaware of the process. The current process is not reliable.

Despite the difficulties with utilizing this process, sites were unable to identify discrete problems with the system or suggest alternative ways to make the process easier and more accurate. Multiple sites expressed this not being a priority for their practices due to the low perceived infection rates. Without a reliable detection method, the true rate of SSIs is not known.

Because of this sporadic response and poor dependability of capturing SSIs, APD must build in multiple back-up methods for identifying infections. The surgical nurse manager must engage in three other methods to attempt to identify infections apart from this process. This adds further variation to an already broken process.

Limitations of this study include that it addressed only one small community hospital. Site interviews were performed on only a selection of practices.

REFERENCES

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