



Published in final edited form as:

J Surg Res. 2021 December ; 268: 1–8. doi:10.1016/j.jss.2021.06.032.

Barriers to post-discharge monitoring and patient-clinician communication

Brian C. Brajcich, MD MS^{1,2}, Meagan L. Shallcross, MPH¹, Julie K. Johnson, PhD MSPH¹, Rachel Hae-Soo Joung, MD¹, Cassandra B. Iroz, MS¹, Jane L. Holl, MD MPH³, Karl Y. Bilimoria, MD MS^{1,2}, Ryan P. Merkow, MD MS^{1,2}

¹Surgical Outcomes and Quality Improvement Center, Northwestern Medicine, Chicago, IL

²Division of Research and Optimal Patient Care, American College of Surgeons, Chicago, IL

³Biological Sciences Division, The University of Chicago, Chicago, IL

Abstract

Introduction—As postoperative length of stay has decreased for many operations, the proportion of complications occurring post-discharge is increasing. Early identification and management of these complications requires overcoming barriers to effective post-discharge monitoring and communication. The aim of this study was to identify barriers to post-discharge monitoring and patient-clinician communication through a qualitative study of surgical clinicians and patients.

Materials and methods—Semi-structured interviews and focus groups were held with gastrointestinal surgery clinicians and patients. Participants were asked about barriers to post-discharge monitoring and communication. Each transcript was coded by two of four researchers, and recurring themes related to communication and care barriers were identified.

Results—A total of 12 clinicians and 15 patients participated in interviews and focus groups. Four themes which encompassed barriers to post-discharge monitoring and communication were identified from clinician interviews and focus groups, and 4 barriers were identified from patient interviews. Patient-identified barriers included education and expectation setting, technology access and literacy, availability of resources and support, and misalignment of communication preferences, while clinician-identified barriers included health education, access to clinical team, healthcare practitioner time constraints, and care team experience and consistency.

Conclusions—Multiple barriers exist to effective post-discharge monitoring and patient-clinician communication among surgical patients. These barriers must be addressed to develop an effective system for post-discharge care after surgery.

Corresponding author: Ryan P. Merkow, M.D., MS, Department of Surgery, Northwestern University Feinberg School of Medicine, 633 N. Saint Clair St., 20th Floor, Chicago, IL 60611, ryan.merkow@northwestern.edu.

Author contributions:

Concept and design: All authors

Acquisition, analysis, or interpretation of data: All authors

Drafting of the manuscript: Brajcich, Merkow

Critical revision of the manuscript for important intellectual content: All authors

Administrative, technical, or material support: Shallcross, Iroz, Bilimoria, Merkow

Supervision: Johnson, Iroz, Holl, Bilimoria, Merkow

Note: MLS is currently affiliated with Mathematica in Chicago, IL

Disclosures: The authors report no proprietary or commercial interest in any product mentioned or concept discussed in this article.

Keywords

Gastrointestinal surgical procedures; surgical oncology; communication; patient discharge; continuity of patient care; qualitative research

INTRODUCTION

Substantial effort has been dedicated to improving the quality of surgical care, with much of the work focusing on the immediate perioperative period, including preoperative patient optimization, minimization of inpatient complications, and the use of enhanced recovery pathways after surgery.^{1,2} However, many postoperative complications occur after the patient is discharged from the hospital.³⁻⁵ This is especially true for certain types of operations, such as those performed to treat gastrointestinal malignancy.⁶⁻¹⁰ Research shows that approximately 32.9% of complications following general surgery operations occur after discharge.³ Furthermore, the average postoperative length of stay has been decreasing with the advent of “fast track” protocols, such as Enhanced Recovery after Surgery (ERAS), and financial pressures from insurers and hospitals. As a result, the proportion of complications which manifest after discharge is increasing.¹¹

Patients and their caregivers must assume much of the responsibility for their post-discharge recovery, and in the event of a post-discharge complication, patients are often left to their own devices to identify the complication and seek care. The current model relies on a reactive approach, where patients must reach out to their clinical team with concerns, which may result in treatment delays or unnecessary utilization of healthcare resources. One way to address this gap in care and improve post-discharge recovery would be through the development of a proactive system for post-discharge monitoring and communication.¹² Such a system could result in earlier identification of complications, potentially preventing the development of more serious sequelae.¹³ Additionally, a proactive post-discharge monitoring and communication system could reduce unnecessary utilization of healthcare resources by allowing minor complaints to be addressed remotely or through an outpatient clinic appointment rather than through an emergency department encounter. Such a system could also reduce patient anxiety and improve patients’ satisfaction with their care.¹⁴

Although a theoretical post-discharge monitoring system holds much promise, the optimal design of such a system has not been well defined. A post-discharge monitoring system would need to overcome barriers which frequently result in communication disruptions between patients and their clinical team, breakdowns in care continuity, and inappropriate or delayed management of complications. The aim of this study was to identify barriers to effective post-discharge monitoring and patient-clinician communication through a qualitative evaluation of patients and healthcare clinicians in the fields of gastrointestinal surgery and surgical oncology.

MATERIALS AND METHODS

Study Population

Study participants included patients and clinicians at Northwestern Memorial Hospital. Patients who had undergone surgery for the treatment of gastrointestinal malignancy in the previous year were identified, specifically including patients who did and did not experience a postoperative complication to ensure that the breadth of postoperative recovery experiences would be sampled. Clinicians included surgical oncologists, colorectal surgeons, registered nurses, advanced practice providers (i.e., nurse practitioners and physician assistants), and call center personnel who interact with patients seen in the gastrointestinal surgery and surgical oncology clinics. Both patient and clinician participants were asked whether they would participate in an interview or focus group to discuss communication, monitoring, and follow-up of patients after surgery. Verbal informed consent was obtained, and participants were not compensated for their participation in the study. This study was approved by the Northwestern University Institutional Review Board.

Interview and Focus Group Protocol Design

Semi-structured interview and focus group protocols were developed through an iterative process by a team with expertise in gastrointestinal surgery, qualitative research methods, and public health. We designed the protocols to explore experiences with patient-clinician communication, symptom monitoring, complication identification and management, and follow-up practices post-discharge after gastrointestinal surgery. An emphasis was placed on identifying and discussing barriers to optimal post-discharge communication and care. The complete interview and focus group protocols are included in the Supplemental Appendix.

Interviews and Focus Groups

Between March 2019 and June 2020, individual semi-structured interviews were performed with patients and their families, surgical oncologists, and colorectal surgeons. Focus groups were held with registered nurses, advance practice providers, and call center personnel. Interviews were conducted in-person or over the telephone with 2 study team members and each interview was approximately 30 minutes in duration. Focus groups consisted of 3-5 participants and 2 study team members and were approximately 60 minutes in duration. Interviews and focus groups were audio recorded and transcribed verbatim by a professional transcription service (Rev, Austin, TX). Identifying information was removed during transcription.

Data Analysis

The study team developed a qualitative codebook deductively by independently reviewing two interview transcripts (1 clinician interview and 1 patient interview) to generate preliminary codes.¹⁵ Codes were compiled into a draft codebook and discussed by the study team. The codebook then underwent iterative revision until consensus was reached.^{16,17} The codebook was pilot tested on 2 additional transcripts which were coded by each member of the study team (Table 1; complete codebook is available in the Supplemental Appendix). After the codebook was finalized, each transcript was independently coded by 2 of 4

members of the study team, with coding discrepancies resolved through discussion between the 2 coding individuals. All coding was performed using MAXQDA 2018 software (VERBI Software, Berlin, Germany). After interviews were coded, the research team identified themes which encompassed barriers to post-discharge monitoring and clinician-patient communication identified by patients and clinicians.

RESULTS

A total of 32 individuals participated in interviews or focus groups. Individual semi-structured interviews were performed with 15 patients and 5 surgeons, while 3 focus groups were performed with a combined total of 12 nurses, advanced practitioners, and answering service personnel (Table 2).

Patient-identified Barriers

Based on semi-structured interviews with patients, we identified barriers to post-discharge monitoring and communication between patients and clinicians. These barriers included *patient education and expectation setting, technology access and literacy, availability of resources and support, and misalignment of communication preferences*. Each barrier is detailed below with additional illustrative quotes included in Table 3.

Patient education and expectation setting—“We didn't know exactly what to expect in terms of the healing of the incision. [...] So we didn't want to over react to it. We didn't quite know what was...what to expect, what's normal.” [Patient, #18]

Multiple patients mentioned the importance of appropriate education and expectation setting before surgery and before hospital discharge, and several patients reported that they did not feel adequately prepared for their postoperative recovery and did not know what to expect or how to react to symptoms they experienced. Many patients believed that education provided by clinicians was an important determinant of a successful recovery process. They noted the benefit of being informed about the expected course of recovery after surgery and about signs and symptoms that would be concerning and should prompt further evaluation. Additionally, patients emphasized that education could help them respond appropriately should something unexpected occur after discharge.

Technology access and literacy—“I'm being perfectly honest and saying that I have never, ever been able to use any of that technology on my phone.” [Patient, #12]

A second barrier identified by patients and their family members was their access to and comfort with technological devices. Many patients mentioned that they do not regularly use computers or smartphone devices and may not be comfortable communicating with their healthcare team via e-mail, text messaging, or secure messaging services such as Epic[®] MyChart. Some patients stated that they rely on family members or other caretakers to help them navigate these technologies or have other individuals who manage their e-mail entirely.

Availability of resources and support—“I think the biggest thing is when somebody go through surgery should not be left alone.” [Patient, #16]

The availability of healthcare resources and support from family and friends were identified as important factors in post-discharge recovery. Multiple patients mentioned their reliance on family members and friends for social support, assistance with activities of daily living, and management of surgical devices. Others mentioned healthcare personnel, such as physical therapists or nurses who visited them at home, and the important role these individuals played in their recovery. Several patients commented on the difficulty they would have faced if they did not have any family support during recovery, and one patient stated that they felt as though they did not have anyone to confide in regarding their day-to-day recovery progress.

Misalignment of communication preferences—“Maybe a phone call or maybe a text depending on what the situation is.” [Patient, #11]

A final barrier reported by multiple patients was when their preferred communication methods did not align with how they were able to interact with their clinical team. Patients endorsed a range of preferences in how they would like to communicate with their healthcare team, including communication via a telephone call, video call, e-mail, messaging through a secure patient portal application (i.e., MyChart), and text messaging. Many patients reported that their preferred method of communication is situationally dependent; for example, they would prefer to speak via telephone about a more urgent matter but would prefer e-mail for a non-urgent question. Finally, many patients expressed interest in the ability to send photographs of their wounds if they had concerns or questions.

Clinician-identified Barriers

The themes identified from interviews and focus groups with clinicians included *health education, access to clinical team, healthcare practitioner time constraints, and care team experience and consistency* (Table 4).

Health education—“That's hard for them, I think, to absorb so much information and then when it's actually happening, they forget all that stuff you talked about beforehand. Because then it's like, ‘Oh my god!’ They get worried and then just call.” [Nurse, #08]

Interviewees observed that poor patient or caregiver health education was an important barrier to successful communication after discharge. Many interviewees noted that a patient's response to a sign or symptom is an important determinant of whether that symptom is appropriately addressed. Multiple clinicians commented that patients often do not immediately recognize concerning signs or symptoms, which can result in delayed identification of a surgical complication. Conversely, clinicians noted that patients may seek care for signs or symptoms that are a normal part of postoperative recovery, resulting in unnecessary healthcare resource use. Many clinicians noted that patient education and expectation setting prior to discharge can improve patient health literacy and acknowledged the inadequacy of existing practices.

Access to clinical team—“The biggest problem? Here's the biggest problem. It's getting a post-op appointment.” [Surgeon, #01]

A second identified barrier was the difficulty faced by patients in accessing their clinical team. Several clinicians commented on the difficulty that patients experience in reaching their clinical team via telephone, which often involves calling a generic hospital number, being rerouted by the operator to the appropriate individual, and then awaiting a callback. Additionally, multiple interviewees commented on difficulties in scheduling outpatient appointments for patients after surgery, particularly on short notice. Many clinicians also noted that these barriers interfere with efficient and effective management of patient complaints and may result in delays in care or overutilization of care (e.g., a patient may go to the emergency room for evaluation due to an inability to be seen in clinic in a timely fashion).

Healthcare practitioner time constraints—“The amount of time that it takes to proactively reach out to the patients, it’s hard to see a return on your investment. [...] It's hard to say but the amount of times that it takes is a big portion of my week.” [Nurse, #03]

A common theme identified by clinicians was the time constraints they face, specifically how these constraints limit their ability to monitor patients after discharge. Interviewees commented that the introduction of new technologies, such as secure messaging services within the electronic medical record, could result in a substantial increase in the time spent communicating with patients. Additionally, when discussing possible protocols and new technologies for patient-clinician communication and post-discharge monitoring, multiple clinicians expressed concern about the additional time that would be required to monitor patients and respond to their inquiries. One interviewee stated that additional monitoring obligations would require them to decrease their clinical productivity, while another speculated that such a system may require hiring additional employees to monitor patient data.

Care team experience and consistency—“It's really important to have continuity of these patients and if you don't know them it's a really hard thing to do.” [Nurse, #03]

A fourth barrier was the clinical care team’s experience with a patient and the recovery process, and how care team inconsistencies lead to breakdowns in care. One interviewee noted that breakdowns in care between institutions result in potentially unnecessary utilization of care, with clinicians who are unfamiliar with the management of routine surgical complaints transferring patients to a higher acuity setting for evaluation. Furthermore, multiple clinicians described how care team continuity and experience can improve the quality of care provided to patients, with more experienced clinicians more quickly recognizing and responding to complications. One surgeon stated that they can trust a more experienced nurse to independently manage patient complications and are therefore able to dedicate their time to other aspects of clinical care, whereas they must be directly involved in monitoring patients after discharge on days when a less-experienced nurse is on duty.

DISCUSSION

Complications frequently occur after discharge for patients who undergo major surgery for gastrointestinal malignancy. Identifying barriers to effective post-discharge care communication between patients and their clinical teams is an essential step in developing a comprehensive post-discharge monitoring system. In this qualitative study, patient education and expectation setting, technology access and literacy, availability of resources and support, and communication preferences were identified as barriers based on interviews with patients. Likewise, health education, access to clinical team, healthcare practitioner time constraints, and care team experience and consistency were identified as barriers based on interview and focus groups with clinicians.

Patients and clinicians identified two closely related barriers: health education and patient education and expectation setting. Although they had different perspectives into these barriers, similar ideas and concerns were stated by individuals from both groups. Both patients and clinicians believe that education, before surgery and before hospital discharge, plays an important role in a patient's recovery after they are discharged. Regardless of how care is structured, patients who are discharged home after surgery will almost certainly need to provide their own self-care and self-monitoring. This highlights the importance of educating patients beforehand, ensuring that they are familiar with common scenarios and know how to differentiate between normal and abnormal occurrences in order to recognize concerning signs and symptoms that may need to be addressed by the clinical team. This empowers patients and families with a better understanding (e.g., expectations), confidence (e.g., self-efficacy), and proactive involvement and activation, which are fundamental to improving patient self-care and monitoring. For example, education empowers patients to take a more active role in their care, potentially allowing for earlier recognition of both abnormal and expected signs and symptoms. This holds the potential to reduce delays in addressing complications and unnecessary use of healthcare resources (e.g., emergency department visits).

The three other barriers identified by patients were technology access and literacy, availability of resources and support, and communication preferences. These barriers reflect how a patient interacts with their healthcare team after discharge. There are two important aspects of this relationship. First, a post-discharge monitoring system must align with a patient's communication preferences and electronic health literacy capabilities. Some patients prefer the efficient, direct nature of email or other forms of electronic messaging, while others are not adept at using these technologies. Second, it is important for patients to have access to the resources necessary for successful recovery, whether it is access to a device that allows them to reach out to the clinical team or a visiting nurse to help with their daily activities.

The final three barriers identified by clinicians, which included access to the clinical team, clinician time constraints, and care team experience and consistency, are manifestations of clinician's time limitations. This leads to patients being unable to easily communicate with their healthcare teams whether by telephone or by scheduling an in-person appointment. Additionally, healthcare practitioners are unable to dedicate additional time to calling

or actively monitoring their patients without impinging on their ability to perform their other clinical duties. Limited availability of clinicians can also result in employee turnover and poor communication and care coordination among members of the healthcare team. Because of the inherent limitations in a clinician's time, it is important that a post-discharge monitoring system be designed to maximize efficient usage of a clinician's time. Communication channels should be streamlined to ensure that important information, such as symptoms suggestive of a developing complication, can be easily and quickly communicated to allow an appropriate response (e.g., request wound picture, in-person clinic evaluation). Additionally, the use of automated tools which can monitor patient data and alert clinicians to worrisome findings may increase clinician efficiency, as might patient education, which can empower patients to appropriately manage non-urgent situations.

When designing a post-discharge monitoring system, it is essential to address the barriers identified by this study. Any post-discharge monitoring system must empower patients, align with clinician workflows, and adapt to the needs of patients. Additionally, it must be complemented by adequate resources for patients to ensure that they have the tools to help them achieve a successful recovery.

There are several limitations to this study which must be appreciated when interpreting the findings. First, the findings of this study may not be fully generalizable outside of the institution or to other patient populations. While our study was performed among a sample of patients and clinicians at a single institution, we believe that the findings may resonate with clinicians and patients at other institutions. Second, the importance of the barriers identified in this study may differ from patient to patient. For example, technology and communication barriers may play a bigger role for elderly patients, while the availability of technological or healthcare resources may be more important among patients with socioeconomically disadvantaged backgrounds. Third, the themes captured by the codebook may not represent an exhaustive list of barriers to post-discharge monitoring and communication. To minimize this limitation, we continued to interview patients and clinicians until we felt thematic saturation was reached.

CONCLUSIONS

Post-discharge complications are common for surgical patients. A comprehensive system for post-discharge monitoring and care for surgical patients may improve patient outcomes; however, multiple barriers exist to effective post-discharge monitoring and patient-clinician communication. Development of a successful post-discharge monitoring system requires recognizing and addressing these barriers.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Funding:

This work was supported by the Agency for Healthcare Research and Quality [grant number K12HS026385] and the American Cancer Society [grant number IRG-18-163-24].

REFERENCES

1. Centers for Medicare and Medicaid Services. Hospital-Acquired Condition (HAC) Reduction Program. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/HAC/Hospital-Acquired-Conditions>. Published 2020. Accessed February 21, 2021.
2. Centers for Medicare and Medicaid Services. Patient Safety Indicators (PSI). <https://qualitynet.cms.gov/inpatient/measures/psi>. Published 2021. Accessed February 21, 2021.
3. Bilimoria KY, Cohen ME, Ingraham AM, et al. Effect of postdischarge morbidity and mortality on comparisons of hospital surgical quality. *Ann Surg*. 2010;252(1):183–190. [PubMed: 20531000]
4. Kazare HS, Roman SA, Sosa JA. Association of postdischarge complications with reoperation and mortality in general surgery. *Arch Surg*. 2012;147(11):1000–1007. [PubMed: 23165614]
5. Yu P, Chang DC, Osen HB, Talamini MA. NSQIP reveals significant incidence of death following discharge. *J Surg Res*. 2011;170(2):e217–224. [PubMed: 21816434]
6. Ommundsen N, Nesbakken A, Wyller TB, et al. Post-discharge complications in frail older patients after surgery for colorectal cancer. *Eur J Surg Oncol*. 2018;44(10):1542–1547. [PubMed: 30037638]
7. Regenbogen SE, Bordeianou L, Hutter MM, Gawande AA. The intraoperative Surgical Apgar Score predicts postdischarge complications after colon and rectal resection. *Surgery*. 2010;148(3):559–566. [PubMed: 20227100]
8. Chen SY, Molena D, Stem M, Mungo B, Lidor AO. Post-discharge complications after esophagectomy account for high readmission rates. *World J Gastroenterol*. 2016;22(22):5246–5253. [PubMed: 27298567]
9. Davenport DL, Vargas HD, Kasten MW, Xenos ES. Timing and perioperative risk factors for in-hospital and post-discharge venous thromboembolism after colorectal cancer resection. *Clin Appl Thromb Hemost*. 2012;18(6):569–575. [PubMed: 22345485]
10. Merkow RP, Bilimoria KY, McCarter MD, et al. Post-discharge venous thromboembolism after cancer surgery: extending the case for extended prophylaxis. *Ann Surg*. 2011;254(1):131–137. [PubMed: 21527843]
11. Mazmudar A, Castle J, Yang AD, Bentrem DJ. The association of length of hospital stay with readmission after elective pancreatic resection. *J Surg Oncol*. 2018;118(1):7–14. [PubMed: 29949667]
12. Sanger PC, Hartzler A, Han SM, et al. Patient perspectives on post-discharge surgical site infections: towards a patient-centered mobile health solution. *PLoS One*. 2014;9(12):e114016. [PubMed: 25436912]
13. Engel H, Huang JJ, Tsao CK, et al. Remote real-time monitoring of free flaps via smartphone photography and 3G wireless Internet: a prospective study evidencing diagnostic accuracy. *Microsurgery*. 2011;31(8):589–595. [PubMed: 22072583]
14. Roebuck A Telephone support in the early post-discharge period following elective cardiac surgery: does it reduce anxiety and depression levels? *Intensive Crit Care Nurs*. 1999;15(3):142–146. [PubMed: 10595053]
15. Saldaña J. The coding manual for qualitative researchers. 3E Third edition . ed. Los Angeles ; London: SAGE; 2016.
16. Reeves S, Kuper A, Hodges BD. Qualitative research methodologies: ethnography. *BMJ*. 2008;337:a1020. [PubMed: 18687725]
17. Johnson JK, Barach P, Vernooij-Dassen M, Collaborative HR. Conducting a multicentre and multinational qualitative study on patient transitions. *BMJ Qual Saf*. 2012;21 Suppl 1:i22–28.

Table 1.

Codebook Domains and Subdomains

Domain	Subdomain
Patient communication and resources	Pre-operative counseling
	Discharge counseling
	Patient support system
	Post-discharge communication
Patient experiences	Subjective symptoms
	Objective signs
	Medical devices
Health system factors	Patient factors
	Clinician factors
Other	

The complete codebook used in this study is available in the supplementary appendix

Table 2.

Summary of Participants in Interviews and Focus Groups

Patients
15 individual patient interviews
Healthcare practitioners
5 individual interviews
2 surgical oncologists
3 colorectal surgeons
3 focus groups
Surgical oncology: 2 registered nurses, 1 physician assistant, 1 nurse practitioner
Colorectal surgery: 3 registered nurses
Call center team: 5 call center personnel

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

Table 3.

Illustrative Quotes for Barriers Described by Patients

Patient education and expectation setting

And having that information prior to the surgery itself, I feel like, made me a more informed patient when I was in the hospital. So as I was experiencing things that one could not even know they would be experiencing during the surgery I had the vocabulary and I had the sense of what to ask Dr [name] when he would visit in the hospital or when a resident would visit in the hospital. [Patient, #17]

Is it normal is it not? I think it's more just the fear. I think people have a certain fear factor like...They are going through these things and not knowing. [Patient, #13]

Technology access and literacy

I want to talk to somebody, I don't want to text somebody or send an email because sometimes you send an email; God only knows when you're going to get an answer. [Patient, #19]

She don't know how to do it but she do have... she have wi-fi in the house. She has access she just don't know how to do it. [Patient, #16]

Availability of resources and support

I don't think a person who doesn't have a full person to help take care of them can handle the going home right away. [Patient, #10]

I was lucky to have my family around to kind of help me maneuver a little bit. I could imagine it be more difficult if I was by myself. [Patient, #20]

Misalignment of communication preferences

I wouldn't even be much of a video--I'd be an emailer guy. Text or Email. [Patient, #15]

He's not a texter, I'll tell you that. Or he does but he doesn't like it. [Patient, #11]

Table 4.**Illustrative Quotes for Barriers Described by Clinicians****Health education**

You educate the patient, you avoid a lot of postoperative communication problems or even the urgency to contact the physician. [Call center personnel, #07]

One more person might freak out about something that's totally normal and then other patients are like ... think that it's normal, but it's actually a concern. And some people are more open to calling and asking and others aren't. [Nurse, #08]

Access to Team

It would be so nice if the patients could just call the office and talk to somebody. But they have to call the phone center. They still have to wait for a nurse to get paged, a nurse to call them back. [Surgeon, #01]

We're overbooked. We're seeing people at seven in the morning, seven at night. [...] It's crazy. For us to get somebody in to check a wound, there's really not a ton of resources available to do it. [Surgeon, #06]

Healthcare practitioner time constraints

I did 10 laparotomies last week. [...] So if I have some kind of an ongoing dialogue, electronic or otherwise, with all those patients, on a [inaudible] basis post discharge, I'm not going to be able to operate on 10 people this week. [Surgeon, #02]

It's a lot of work. It takes a lot of conscientious ... because it's not built into the system. It's more us being very vigilant about things. [Surgeon, #05]

Care team experience and consistency

I have a dedicated nurse who has learned now what are the things to look for and understands what's involved. When it's not her that's there on a certain day, then I'm a little more worried and I have to be more involved when a patient calls in. [Surgeon, #05]

Early recognition [of] complications can actually make a huge difference in how we manage them and how the patients do in the end. And so when the practitioner doesn't know how to recognize that because they just don't have experience with it, I think that's a problem. [Surgeon, #05]