The continuity of care: From admission to the recovery at home

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Abstract

The treatment and support patients receive in their transition from the emergency department (ED) to the patient care unit (PCU), and eventually the community, have clinical consequences, psycho-social outcomes, and financial ramifications. This quality improvement report provides recommendations intended to improve patient experiences and outcomes, in the context of ED crowding. The recommendations provided are informed by the findings of a master's project that examined the transfer of patients from admission in a crowded ED, to a select PCU, and then to the community, using process mapping and patient surveys. The purpose of this project was to examine the sequence of care from the ED to the PCU (McHugh et al., 2011) using a systems' approach (Villa, Prenestini, & Giusepi. 2014). We believe that by understanding process successes and failures, between EDs and PCUs, we can make improvements to ensure efficient, effective, and streamlined transitions to promote continuity of care.

Introduction

The treatment and support patients receive during a hospital admission have clinical consequences, psycho-social outcomes, and financial ramifications. Informed by the findings of a master's project, this paper examines the transfer of patients from admission in a crowded emergency department (ED), to a selected patient care unit (PCU), and then to the community, by means of a paper-and-pencil questionnaire and patient interview. This quality improvement report includes recommendations to improve patient experiences and outcomes, in the context of and beyond the walls of, the ED (McHugh, Van Dyke, McClelland, & Moss, 2011), by using a comprehensive systems approach (Villa et al., 2014). Only by understanding the successes and failures of the process, between the ED and PCU, can clinicians make improvements to ensure effective, and streamlined transitions that promote continuity of care.

Background

Patients seeking care in the ED often encounter extended wait times for assessment, diagnosis, and treatment. Too often, according to the Canadian Association of Emergency Physicians (2003), wait times lead to "a situation in which the demand for emergency services exceeds the ability of a department to provide quality care within acceptable time frames" (para. 11). As a result, hospitals now regard crowding as a major component in the manner and quality of patient care in the ED and associated specialty units (Flabouris, Jeyadoss, Field, & Soulsby, 2013; Hoot & Aronsky, 2008; Sun et al., 2013).

Researchers often depict ED crowding by means of a framework, developed by Asplin et al., (2003), which delineates crowding according to three components: *input*, *throughput*, and *output*. *Input* corresponds to the common factors associated with crowding; *throughput* speaks to ED operations; and *output* relates to patient discharge alternatives. In brief, delays in throughput slow the output, thus adding to crowded environments, further affecting all three components (Korn & Mansfield, 2008; Solberg, Asplin, Weinick, & Magid, 2003).

Delays in ED output contribute to delays in the hospital system, leading to unpleasant and harmful hospital experiences for patients and their families, such as lower quality of care, increased costs, and compromised community trust (McHugh et al., 2011). As the number of patients held in the ED increases, other patients face delays that increase their risk for adverse outcomes (White et al., 2012). For example, long holding times and crowding in EDs are associated with increased mortality rates after admission (Hoot & Aronsky, 2008; Huang, Thind, Dreyer, & Zaric, 2010; Sun et al., 2013). Holding high-dependency or intensive care patients, especially elderly ones, in the ED substantially increases their risk of mortality (Flabouris et al., 2013; Huang et al., 2010).

Lengthy wait times often frustrate patients and their families (Hoot & Aronsky, 2008; Solberg et al., 2003; Sun et al., 2013). They detract from positive patient experiences (Boudreaux & O'Hae, 2003), which can result in emotional distress (Boudreaux, Cruz, & Baumann, 2006).

Lengthy wait times also increase financial costs associated with longer lengths of stay (Huang et al., 2010). Alternatively, reducing ED holding times can lead to a decrease in overall hospital costs (Foley, Kifaieh, & Mallon, 2011) and additional system-wide savings (Huang et al., 2010). Addressing ED crowding could support more inpatient beds and healthcare providers (Huang et al., 2010).

Using formal evaluation methods to measure the effect of ED crowding can guide research questions, shape policy, and promote operational management strategies to alleviate the consequences of overcrowding (Asplin et al. 2003). Moreover, such improvements would ensure that patients "receive the right care at the right time" (Cirrone, Di Pietro, La Corte, & Torrisi, 2016, p. 232).

Project Questions

This paper, part of a larger project, addresses two questions:

1. How do patients and their families describe their hospital experience?
2. What changes to current practice could improve the experience of patients as they transition from ED to a PCU and then to recovery in the community?

Methods

Design

The project used mixed methods (quantitative and qualitative) to collect data. The quantitative data came from a paper-and-pencil questionnaire (Appendix A available at www.CJEN.ca), and the Patient Continuity of Care Questionnaire (PCCQ-short), designed by Hadjistavropoulos, Biem, Sharpe, Bourgault-Fagnou, & Janzen (2008). It collected patient perceptions about their hospital experience. In addition to the PCCQ-short, the project team added three open ended questions (Appendix B available at www.CJEN.ca) that ask patients to describe their hospital care—analysis of the transcripts constituted the qualitative portion.

The project also included an observational exercise, detailing the patient journey from ED admission until discharge into the community. The quality improvement (QI) principles of Alberta Health Services Improvement Way (AIW) provided a framework to record the aforementioned observations and construct a value process map (Appendix C). AIW incorporates the most effective quality improvement tools including *Lean* and *Six Sigma* and provides a common language and approach to improvement and problem solving processes in its operations (AHS, 2012).

Procedure and Participants

This project enlisted a convenience sample of patients (*n*=10) admitted to the ED, between January 23 and April 4, 2018, and scheduled for unplanned surgery (requiring appendectomy or cholecystectomy), at a tertiary teaching hospital, in a large Canadian city. The project leader, a registered nurse, directly observed the transfer of the patients from the ED to the PCU. She also administered Part One (Before Discharge) of the PCCQ-short. One week post-discharge, she phoned participants, at a mutually convenient time, and administered Part Two (After Discharge) of the PCCQ-short as well as three open-ended questions.

Upon receiving approval from the Conjoint Health Research Ethics Board, emergency medicine research assistants recruited eligible participants in the ED. Eligibility criteria included: adults, between the ages of 18 and 89 inclusive, admitted for appendectomy or cholecystectomy. They had basic English language skills, had a primary physician, and planned to return home within the city for their recovery. Exclusion criteria included those with complex clinical problems or co-morbidities that required extensive care. The participants averaged 38.5 years of age. They included an equal number of female (*n*=5) and male (*n*=5) participants, with the mean hospital stay of 2.8 days. A majority (70%) of the participants (*n*=7)—they included four females and three males—had cholecystitis. The remainder (*n*=3, 30%)—they included two males and one female—had appendicitis.

Results

Quantitative Data

Due to the small convenience sample (*n*= 10), simple descriptive data analysis of PCCQ items suffices. Consequently, quantitative analysis of the PCCQ-short (Part One) includes mean and standard deviation calculations for sixteen items. On an ascending scale of 1 to 5, participants rated their overall care as 4.7 on average—a rating of < 4 indicates an area for improvement, according to the designers of the PCCQ (Hadjistavropoulos et al., 2008). As stated above, administration of the PCCQ-short takes place in two parts (before discharge and after discharge). Analysis of the data, however, examines results in terms of three factors (informational care, relational care and continuity of care). Of the three, the first two refer to events in the hospital, which remain the focus of this paper. Consequently, this paper does not contain data regarding the period after discharge, or items #17 to #25 inclusive. In place of these data, the researchers asked three open-ended questions, which then underwent qualitative analysis.

The respective averages for two of the sub-factors, informational and relational, differ marginally. Table 1 arranges the 16 responses, corresponding to the two sub-factors, as they pertain to the patient experience before discharge. One, informational care, before discharge, averages 4.62. The other, relational care, again before discharge, averages 4.86 (all numbers rounded to the hundredth place). Both averages, as it happens, lie above 4.0. Consequently, even though item #5, found under informational care, has an average score of 4.13, none of the scores indicates room for improvement, an equivocal term when it comes to quality of care.

Patients indicate that three items score below the overall average (4.62) for informational care (Table 1). That is, item #3 averages 4.38—it states, "I was told about non-urgent symptoms that may occur and how I should cope with these." Item #4 averages 4.50—it states, "I was given information on symptoms that may signal a need to seek urgent medical attention & whom to contact for these symptoms (e.g., specialist, family physician, homecare)." Item #5 averages the lowest, 4.13—it states, " I was given complete information on my medications (e.g., type, purpose, how given, when, how often, for how long, how much, side effects, drug interactions, nature and frequency of blood work)." Contrariwise, the majority of items, five in all, have individual scores higher than the overall average for the sub-factor. Three of these items (1, 2, and 6) score substantially higher. The remaining two items (7 and 16) score marginally higher—in the case of item #16, the difference amounts of one hundredth of a point.

The other sub-factor, relational care, with an average of 4.86, has a higher average than its correlate, informational care (4.62). Among the eight items, under relational care, five in all, have lower averages than 4.86 (Table 1). Item #8 averages the lowest, 4.50—it states. "Providers understood my expectations, beliefs and preferences". Items #9 and #14 scored the same, 4.63. Item #9 states, "I felt 'known' (e.g., current clinical condition and events) by the providers involved in my care." Item #14 states, "The different providers appeared to communicate well with each other while I was in hospital." Two other items shared the same, if higher, score (4.75). Item #11 states, "I was satisfied with the information from the providers involved in my care." And item #12 states, "I was satisfied with the emotional support from the providers involved in my care." An explanation for the higher

Table 1. Mean and standard deviation of responses, arranged according to informational and relational sub-factors, to sixteen items (Part One) of the PCCQ-short (n= 10)
(A refers to Appendectomy. C refers to Cholecystectomy)

Item Question Per participant	C002	C003	A001	C004	C005	C006	A002	A003	C007	C008	Mean
1. I was provided with clear information on my diagnosis.	5	5	5	5	5	5	5	4	5	5	4.88
2. I was provided with clear information on my prognosis.	5	5	5	5	5	4	5	5	5	5	4.88
3. I was told about non-urgent symptoms that may occur and how I should cope with these.	5	5	5	3	5	2	5	5	5	4	4.38
4. I was given information on symptoms that may signal a need to seek urgent medical attention & whom to contact for these symptoms (e.g., specialist, family physician, homecare).	4	5	5	3	5	4	5	5	5	5	4.50
5. I was given complete information on my medications (e.g., type, purpose, how given, when, how often for how long, how much, side effects, drug interactions, nature and frequency of blood work).	5	5	5	3	4	2	5	4	5	4	4.13
6. I was given information on follow-up appointments that have been made for me and appointments I have to schedule for myself.	5	5	5	5	5	5	5	4	5	5	4.88
7. I was informed of ongoing treatment that may be required after discharge (e.g., purpose, how, when) and whether I will have ongoing contact with providers of my care (e.g., physicians, etc.).	5	5	5	4	5	N/A	5	4	5	5	4.71
8. Providers understood my expectations, beliefs and preferences	5	5	4	4	5	3	5	5	5	4	4.50
9. I felt "known" (e.g., current clinical condition and events) by the providers involved in my care.	5	5	5	4	4	5	5	4	5	4	4.63
10. I had confidence in the providers involved in my care.	5	5	5	5	5	4	5	5	5	4	4.88
11. I was satisfied with the information from the providers involved in my care.	5	5	5	4	5	4	5	5	4	4	4.75
12. I was satisfied with the emotional support from the providers involved in my care.	5	5	5	4	5	4	5	5	5	5	4.75
13. I was satisfied with the opportunity to talk and raise questions with the providers involved in my care.	5	5	5	5	5	4	5	5	4	5	4.88
14. The different providers appeared to communicate well with each other while I was in hospital/convalescent care.	5	5	5	5	5	4	4	4	5	4	4.63
15. A well-developed and realistic follow-up plan was prepared and explained to me.	5	5	5	4	5	5	5	5	5	5	4.88
16. I felt adequately prepared for discharge.	5	5	5	4	5	4	5	4	5	5	4.63
Mean	4.94	5.00	4.94	4.19	4.94	3.89	4.94	4.60	4.88	4.56	4.68

overall average for relational care derives from the fact that the remaining three items, of the eight sub-factor items, all have a high score of 4.88. They include item #10 ("I had confidence in the providers involved in my care"), item #13 ("I was satisfied with the opportunity to talk and raise questions with the providers involved in my care") and lastly, item #15 ("A well-developed and realistic follow-up plan was prepared and explained to me)." Comparatively, the item averages for the relational sub-factor show more variation than the informational sub-factor. That is, the respective averages for five of the eight items lie below the overall average for the entire sub-factor.

Qualitative Data

Thematic analysis of the transcripts indicated three themes. The team arranged the results of the analysis under three headings.

Theme 1: Providing appropriate pain management.
Participants appreciated the protocols of the triage process. That is, they understood that a physician had to perform an assessment before they could receive any pain medication. Nevertheless, they expressed their dissatisfaction about delays in receiving treatment for their pain. One patient remarked,

> *"They [physicians] see pain everyday right? And even if you are in a lot of pain, um, they make sure that you know it's not life threatening; its only pain. And I know they have a lot of people to take care of. So, you kind of have to wait your turn even if you are in pain." Participant C005.*

The participants felt they could have benefited from better pain management while they waited for an assessment. One participant pointed out,

> *"Once the pain is under control, maintain it, don't let it slip away. It is very uncomfortable. Like once I got things under control I was good for quite a while. … listen to the patient when they say the pain is coming back." (Participant C007).*

Theme 2: Communicating about the waiting process.
The process of waiting in the ED or for surgery proved particularly frustrating for other patients. Notwithstanding their complaints, the participants indicated that the nurses communicated effectively about the process and any delays in waiting for surgery. One patient stated,

> *"They took me to the [unit]. They give me all the information. Like why they don't make the surgery immediately? They explained it very well. Why I have to wait, right? Because they called the emergency surgery, and then they check the primary people that the Emergency receive, right, which is the soonest emergency. Well, stuff like that. So everything was very clear." (Participant C003).*

Theme 3: Providing anticipatory guidance.
Four participants believed that the staff discharged them too soon after surgery. Although they had recovered sufficiently, they wanted more time to prepare for their post-surgical recovery at home. One believed,

> *"So you know I was ok to be discharged. Right. It's just it may have been a little bit too fast. But I have seen other patients in the room. They were discharged; they were operated at 10 o'clock at night, and then at 10 o'clock in the morning they were gone. So, right. It's the way it's done now….[Y]ou don't stay long in the hospital. They send you home very fast." (Participant C005).*

Regardless of the early discharge, all the participants expressed a high level of satisfaction with the information provided to them at discharge. One stated,

> *"The papers they gave me for discharge had all the information on them so I didn't have any questions after they gave me." (Participant A002).*

Most of the participants indicated that the standardized discharge information sheets included everything that they needed to know, but two participants asked for more time to ask questions. They wanted more information about any deviations from the regular expectations, specifically around eating.

Some Observations

The sample (n=10) includes a small subsection of patients in the ED and does not always reflect the average times that are commonly measured. The time from triage until physician assessment, diagnosis, specialty consultation, admission, bed allocation and transfer to the unit were all below the hospital average times. The most significant difference in times was the time a bed was allocated—the average time for the project participants was only 30 minutes, whereas the average for the hospital was 414 minutes. This was likely due to the fact that the PCU was somewhat anomalous due to its very specific admitting criteria (short surgical stays). This, along with the staff's willingness to take report from the ED with little or no push back towards the ED, patients experienced quick transfer times. As a result, the PCU had fast patient turnover—beds become allocated quickly if patients meet the unit criteria.

Once a patient no longer requires hospital care the actual discharge of patients presents some problems when it comes to measurement. The decision to discharge from the admitting service to the time an order is processed and the time a patient leaves the hospital is not commonly measured. Adding the time it takes for housekeeping to arrive and clean the bed can substantially increase the time to have the bed ready for the next patient. Although the department of housekeeping and porters track the times for their services closely and continue to make staffing adjustments to accommodate demands during the peak hours, discharge time can vary widely.

The hospital process includes an extensive use of personnel, resources, and time. Addressing the complexities within the process can make a difference for patients in the ED and the rest of the hospital.

Recommendations

The following recommendations result from an analysis of the different components of the project.

Emergency Department

1. Provide timely and appropriate pain management strategies. Registered nurses should initiate nursing protocols, especially when waiting for physician assessment. One participant stated "Four hours passed nobody give me something

for pain until I was just ready to scream, and I say please, I need something for the pain now."

2. Provide patients and their families more information about the waiting process in a friendly format such as videos playing in the waiting rooms explaining the wait time and care prioritization.
3. Eliminate duplicate processes to ensure a more seamless transition. This could involve establishing collaborative relationships with the information technology department to alter or upgrade existing electronic charting processes.
4. Utilize QI processes to identify inefficiencies that might affect the experiences and transition of patients during their hospital admission. This could include efficient patient transport throughout the facility by redeploying unit specific porters and minimizing paperwork delays, such as waiting for admission packages.
5. Work collaboratively with departments outside of the ED, specifically the PCU's and the surgical suites, to develop processes for eliminating unnecessary transportation of patients waiting for surgery while in the ED.

Patient Care Unit and Transition to the Community

1. Share patient experiences with the managers, educators, and staff of the PCU to encourage their commitment to excellent patient care and ways to make identified improvements. One participant stated ...."I think it was really good. Very helpful, very clear. They explained everything. They were very good to me."
2. Improve the discharge process for patients by working collaboratively with physicians and management to make it more thorough and efficient. This includes re-evaluating existing discharge material to provide patients more specific information on medications commonly used in post-operative care. This would provide anticipatory guidance on potential complications that can occur when recovering from surgery. One participant suggested "... maybe a little bit more about diet and how your digestive system takes a little while to get going again (laughs). You know? Like a bit about, even if you didn't have abdominal surgery, it's just it takes your body a while to get functioning again, so maybe something along that line."
3. Enter discharge orders during morning rounds, use conditional discharge orders, and arrange discharge appointment times to encourage family participation in the discharge teaching.

Conclusion

This project examined the experience of hospital patients, diagnosed and treated for appendicitis and cholecystitis. Understanding their interests and concerns provided advance thinking about the current sequence of care or flow of patients between the ED and PCU and then to the community. The above recommendations offer a value-based approach in the continuity of care.

Author's Take-aways

1. Look for inventive ways to mitigate the stressful consequences associated with crowding.
2. Provide patients and their families information about the waiting process and what to expect so they do not feel forgotten in the crowding.
3. Provide patients with early and ongoing pain management strategies.
4. Promote collaboration between ED and PCU to facilitate smooth transitions in care.
5. Remember that Quality Improvement benefits both patients and staff.

About the author

Kara graduated from the University of Calgary in 2005 with her Bachelor of Nursing. Kara has worked General Surgery/Surgical Oncology, Trauma Surgery and the last 12 years in the Emergency Department. Kara has been involved in various committees while in the ED and completed her Masters of Nursing in summer of 2018 with a cap-stone project that studied the continuity of care for surgical patients admitted from the Emergency Department. For fun Kara likes to hang out with her two kids and anything outdoors including: running, biking, camping, hiking, skiing/snowboarding etc. She also enjoys reading, good food and spending time with friends/family.

References

Alberta Health Services. (2012). The AHS improvement way: Core improvement—access, efficiency, quality, safety. Edmonton, Canada: Pivotal Resources, Inc.

Asplin, B. R., Magid, D. J., Rhodes, K. V., Solberg, L. I., Lurie, N., & Camargo Jr., C. A. (2003). A conceptual model of emergency department crowding. *Annals of Emergency Medicine, 42*(2), 173–180. doi: 10.1067/mem.2003.302

Boudreaux, E. D., Cruz, B. L., & Baumann, B. M. (2006). The use of performance improvement methods to enhance emergency department patient satisfaction in the United States: a critical review of the literature and suggestions for future research. *Academic Emergency Medicine*, *13*(7), 795–802.

Boudreaux, E. D., & O'Hea, E. L. (2004). Patient satisfaction in the emergency department: A review of the literature and implications for practice. *The Journal of Emergency Medicine*, *26*(1), 13–26. doi: 10.1016/j.jemermed.2003.04.003

Canadian Association of Emergency Physicians. (2003). *Emergency department crowding: Position statement*. Retrieved from: http://caep.ca/resources/position-statements-and-guidelines/ed-overcrowding-2003

Cirrone, C., Di Pietro, E., La Corte, A., & Torrisi, A. A. (2016). Patient flow optimization using knowledge super networks and lean six sigma. *Journal of Advanced Management Science*, *4*(3). doi:10.12720/joams.4.3.232-237

Foley, M., Kifaieh, N., & Mallon, W. K. (2011). Financial impact of emergency department crowding. *Western Journal of Emergency Medicine*, *12*(2), 192. doi: http://escholarship.org/uc/uciem_westjem.

Flabouris, A., Jeyadoss, J., Field, J., & Soulsby, T. (2013). Association between emergency department length of stay and outcome of patients admitted either to a ward, intensive care or high dependency unit. *Emergency Medicine Australasia*, *25*(1), 46–54. doi: 10.1111/1742-6723.12021

Hadjistavropoulos, H., Biem, H., Sharpe, D., Bourgault-Fagnou, M., & Janzen, J. (2008). Patient perceptions of hospital discharge: Reliability and validity of a Patient Continuity of Care Questionnaire. *International Journal for Quality in Health Care*, *20*(5), 314-323. doi:10.1093/intqhc/mzn030

Hoot, N. R., & Aronsky, D. (2008). Systematic review of emergency department crowding: Causes, effects, and solutions. *Annals of Emergency Medicine*, *52*(2), 126–136. doi: 10.1016/j.annemergmed.2008.03.014

Huang, Q., Thind, A., Dreyer, J. F., & Zaric, G. S. (2010). The impact of delays to admission from the emergency department on inpatient outcomes. *BMC Emergency Medicine*, *10*(1), 16. doi: 10.1186/1471-227X-10-16

Korn, R., & Mansfield, M. (2008). ED overcrowding: An assessment tool to monitor ED registered nurse workload that accounts for admitted patients residing in the emergency department. *Journal of Emergency Nursing*, *34*(5), 441–446. doi: 10.1016/j.jen.2007.06.025

McHugh, M., VanDyke, K., McClelland, M., & Moss, D. (2012). Improving patient flow and reducing emergency department crowding: A guide for hospitals (Prepared by the Health Research & Educational Trust). Retrieved from: http://hsrc.himmelfarb.gwu.edu

Solberg, L. I., Asplin, B. R., Weinick, R. M., & Magid, D. J. (2003). Emergency department crowding: Consensus development of potential measures. *Annals of Emergency Medicine, 42*(6), 824–834. doi: 10.1016/S0196-0644(03)00816-3

Sun, B. C., Hsia, R. Y., Weiss, R. E., Zingmond, D., Liang, L. J., Han, W., McCreath, H., & Asch, S. M. (2013). Effect of emergency department crowding on outcomes of admitted patients. *Annals of Emergency Medicine*, *61*(6), 605–611. doi: 10.1016/j.annemergmed.2012.10.026

Villa, S., Prenestini, A., & Giusepi, I. (2014). A framework to analyze hospital-wide patient flow logistics: Evidence from an Italian comparative study. *Health Policy*, *115*(2), 196–205. doi: 10.1016/j.healthpol.2013.12.010

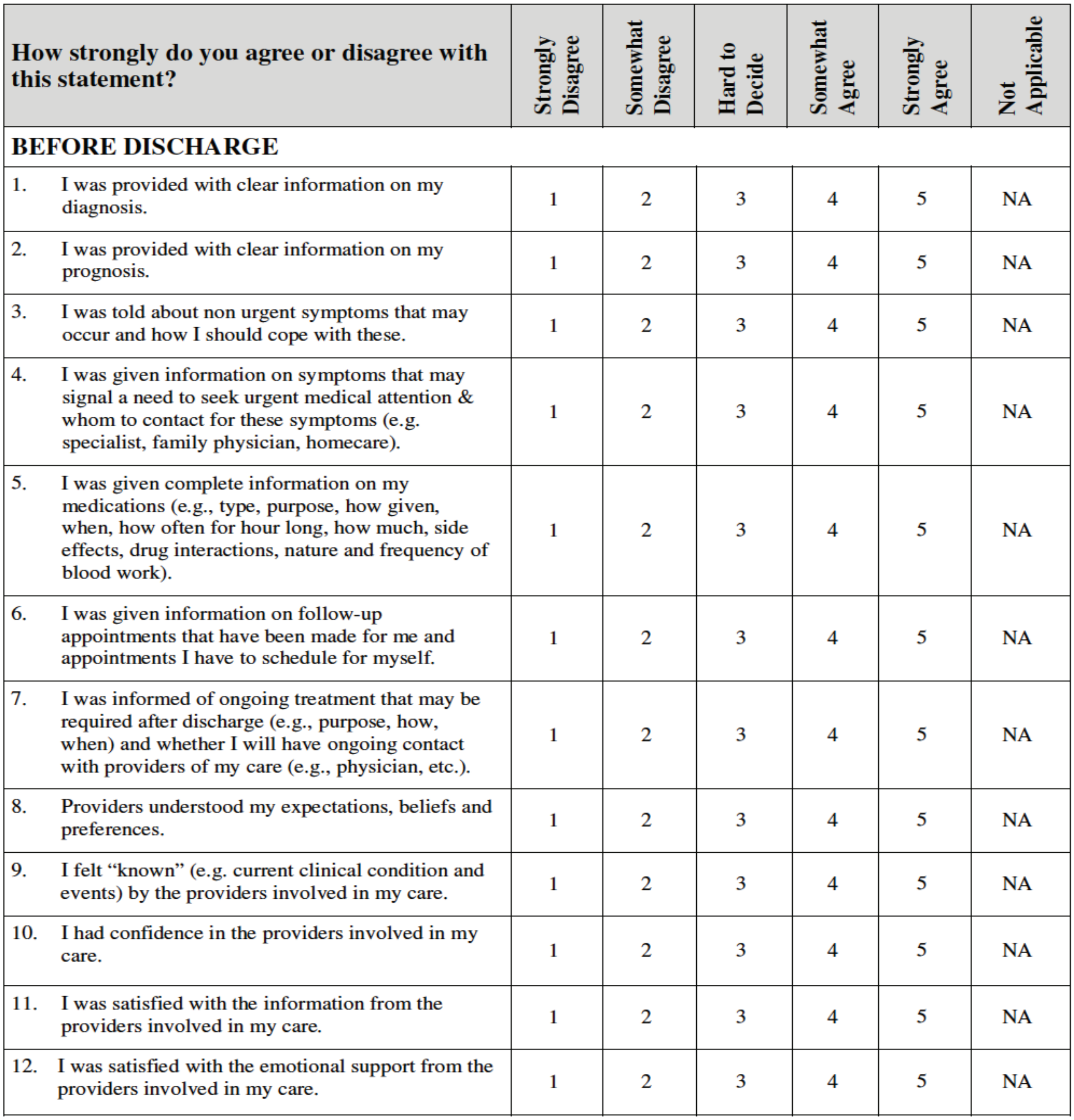
White, B. A., Biddinger, P. D., Chang, Y., Grabowski, B., Carignan, S., & Brown, D. F. M. (2013). Boarding inpatients in the emergency department increases discharged patient length of stay. *The Journal of Emergency Medicine, 44*(1), 230–235. doi:10.1016/j.jemermed.2012.05.007

Appendix A

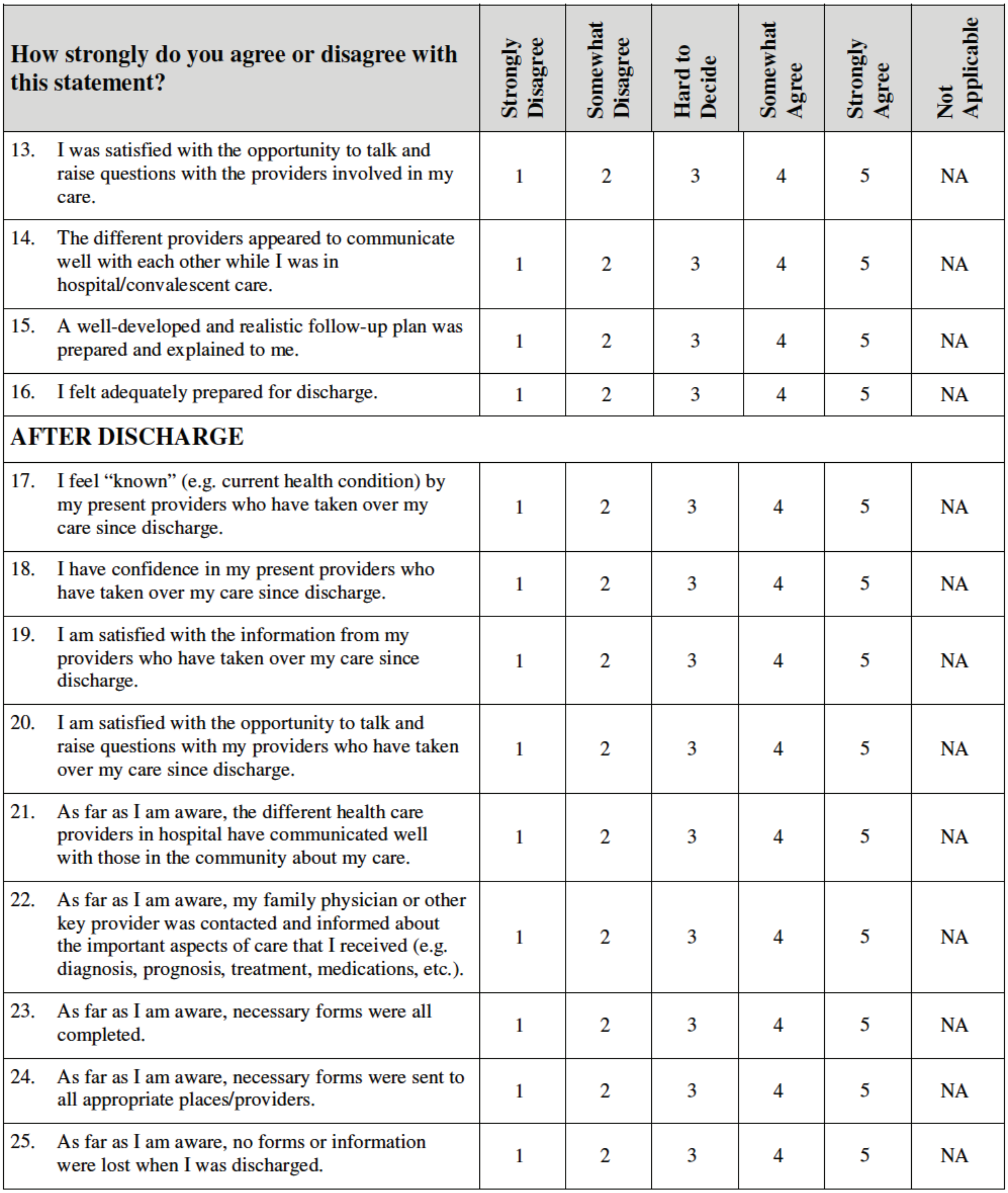
Patient Continuity of Care Questionnaire-Short (PCCQ-Short)

***INSTRUCTIONS*:** These statements are designed to assess the care you received around the time of discharge from hospital. Please complete on your own or with assistance. An informal caregiver (e.g. family, friends) can also complete on behalf of a patient.

Read each statement and circle a number between 1 and 5 to indicate whether you 1 (strongly disagree), 2 (somewhat disagree), 3 (cannot decide whether you agree or disagree), 4 (somewhat agree), or 5 (strongly agree) with the statement.



How strongly do you agree or disagree with this statement?	**Strongly Disagree**	**Somewhat Disagree**	**Hard to Decide**	**Somewhat Agree**	**Strongly Agree**	**Not Applicable**
BEFORE DISCHARGE						
1. I was provided with clear information on my diagnosis.	1	2	3	4	5	NA
2. I was provided with clear information on my prognosis.	1	2	3	4	5	NA
3. I was told about non urgent symptoms that may occur and how I should cope with these.	1	2	3	4	5	NA
4. I was given information on symptoms that may signal a need to seek urgent medical attention & whom to contact for these symptoms (e.g. specialist, family physician, homecare).	1	2	3	4	5	NA
5. I was given complete information on my medications (e.g., type, purpose, how given, when, how often for hour long, how much, side effects, drug interactions, nature and frequency of blood work).	1	2	3	4	5	NA
6. I was given information on follow-up appointments that have been made for me and appointments I have to schedule for myself.	1	2	3	4	5	NA
7. I was informed of ongoing treatment that may be required after discharge (e.g., purpose, how, when) and whether I will have ongoing contact with providers of my care (e.g., physician, etc.).	1	2	3	4	5	NA
8. Providers understood my expectations, beliefs and preferences.	1	2	3	4	5	NA
9. I felt "known" (e.g. current clinical condition and events) by the providers involved in my care.	1	2	3	4	5	NA
10. I had confidence in the providers involved in my care.	1	2	3	4	5	NA
11. I was satisfied with the information from the providers involved in my care.	1	2	3	4	5	NA
12. I was satisfied with the emotional support from the providers involved in my care.	1	2	3	4	5	NA



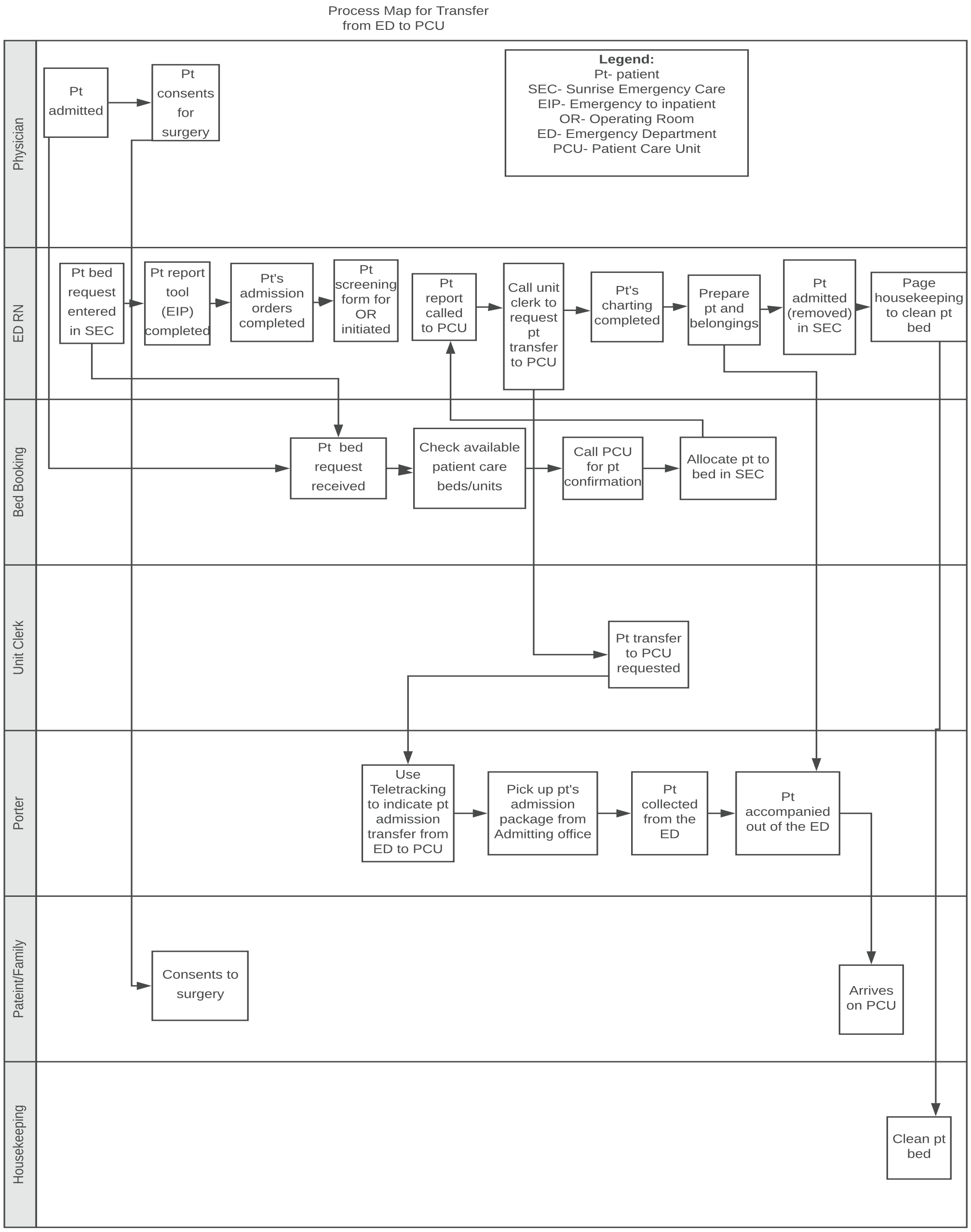
How strongly do you agree or disagree with this statement?	Strongly Disagree	Somewhat Disagree	Hard to Decide	Somewhat Agree	Strongly Agree	Not Applicable
13. I was satisfied with the opportunity to talk and raise questions with the providers involved in my care.	1	2	3	4	5	NA
14. The different providers appeared to communicate well with each other while I was in hospital/convalescent care.	1	2	3	4	5	NA
15. A well-developed and realistic follow-up plan was prepared and explained to me.	1	2	3	4	5	NA
16. I felt adequately prepared for discharge.	1	2	3	4	5	NA
AFTER DISCHARGE						
17. I feel "known" (e.g. current health condition) by my present providers who have taken over my care since discharge.	1	2	3	4	5	NA
18. I have confidence in my present providers who have taken over my care since discharge.	1	2	3	4	5	NA
19. I am satisfied with the information from my providers who have taken over my care since discharge.	1	2	3	4	5	NA
20. I am satisfied with the opportunity to talk and raise questions with my providers who have taken over my care since discharge.	1	2	3	4	5	NA
21. As far as I am aware, the different health care providers in hospital have communicated well with those in the community about my care.	1	2	3	4	5	NA
22. As far as I am aware, my family physician or other key provider was contacted and informed about the important aspects of care that I received (e.g. diagnosis, prognosis, treatment, medications, etc.).	1	2	3	4	5	NA
23. As far as I am aware, necessary forms were all completed.	1	2	3	4	5	NA
24. As far as I am aware, necessary forms were sent to all appropriate places/providers.	1	2	3	4	5	NA
25. As far as I am aware, no forms or information were lost when I was discharged.	1	2	3	4	5	NA

Appendix B

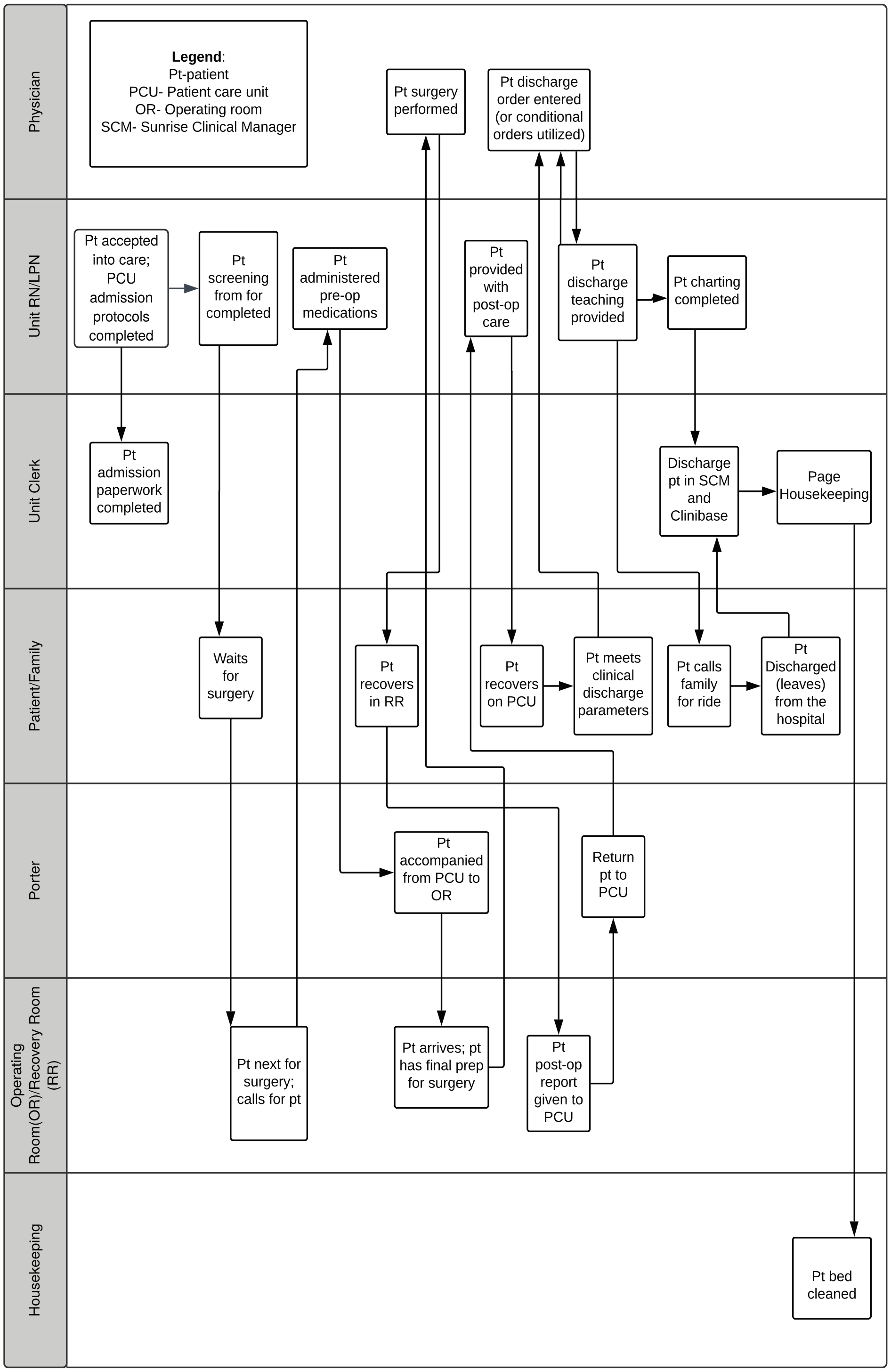
Three open-ended questions posed to patients after discharge.

1. How would you improve the admission process in the Emergency Department?
2. How would you help people prepare for surgery?
3. How would you improve the discharge process to help people recover better?

Appendix C: Process Map: ED to PCU



Process Map: PCU Admission to Discharge



Process Map for Admission to Discharge