

Back So Soon? Part 2

Use of the 5 “Whys” Process in Unplanned Hospital Readmissions

Cathy Wrotny, MS, RN, GCNS-BC, Dona Bradley, BSN, RN, CHFN, and Maurice Brulé, BSN, RN

ABSTRACT

Purpose/Objectives: Readmission prevention strategies are the focus of many hospitals, but despite these efforts, unplanned, all-payer hospital readmission rates are increasing. The purpose of this study was to use root cause analysis (RCA) to explore the main cause (medical, behavioral health, and/or social) for the unplanned 30-day readmissions that the Readmission Prevention Team followed up and then to use this data to change and/or refine discharge planning interventions.

Primary Practice Setting: The primary practice setting was the 229-bed study hospital where subjects with 30-day unplanned readmissions who were followed up by the Readmission Prevention Team were admitted. The venues that subjects were readmitted from were noted as home without services, home with home care, skilled nursing facility (SNF), acute rehab, physician office, hospice/palliative care, and refused care.

Methodology and Sample: Using a descriptive, correlational, qualitative design, demographic data (age, gender, days between discharge and readmission, and the venue from which the patient was readmitted) were collected from the RCA worksheets of each subject with an unplanned hospital readmission within 30 days.

Results: Among the 150 subjects, the main cause for readmission was medical (92%), with 19 of the subjects (13%) demonstrating multiple root causes. Women were readmitted more frequently than men, and the prominent age range was the 70s and 80s. The two main readmission venues were home with home care (54.7%) and skilled nursing facilities (23.3%).

Implications for Case Management: Medical was the chief cause of readmissions in this study, with many case management interventions noted in the literature to address these issues. Behavioral health and social issues were responsible for 13% of the readmissions. These issues are more complex, and hospitals should review the interventions that they have in place and develop others that are needed to decrease these types of readmissions.

Home with home care was the main venue of readmission, with return from a skilled nursing facility (SNF) being the second. Potential interventions to decrease these unplanned hospital readmissions might include developing a backup discharge plan (Option B) and developing improved communication avenues between the hospital emergency department and the SNF that might lead to the patient returning to the SNF versus being admitted.

Key words: 5 whys, readmission prevention, root cause analysis (RCA)

Readmission prevention efforts have become “a priority in the era of health care reform” (Stevens, 2015, p. 123). Unplanned 30-day hospital readmissions, according to Fluitman et al. (2016), are prevalent and costly. McIlvennan et al. (2015) report that readmissions are associated with unfavorable patient outcomes and that efforts to address this issue have become a chief focus among hospitals and other health care organizations such as skilled nursing facilities (SNFs), rehabilitation facilities, and home health care agencies.

Despite research findings demonstrating the impact of hospital readmissions on patient outcomes and their costly burden to the health care system, data from the Center for Health Information and Analysis (2020a, 2020b) report that unplanned, all-payer hospital

readmission rates increased from 15.2% in 2013 to 16.1% in 2017. Over the same period, the unplanned, all-payer readmission rates for the study hospital increased from 9.9% to 10.4% (Winchester Hospital All-payer unplanned readmission rates, 2013, 2017).

The purpose of this study is to explore unplanned 30-day hospital readmissions at a 229-bed community

Address correspondence to Cathy Wrotny, MS, RN, GCNS-BC, 49 Winford Way, Winchester, MA 01890 (cjwrotny@verizon.net).

The authors report no conflicts of interest.

DOI: 10.1097/NCM.0000000000000505

It is important to consider all three categories (medical, behavioral, and social needs) when performing RCA so that a primary diagnosis, chief complaint, or complicated medical history is not mistaken as the root cause of an unplanned readmission.

hospital 8 miles north of Boston. Using the RCA process, the aim will be twofold:

- First, identifying the root cause of unplanned readmissions for patients who return to the hospital within 30 days of discharge.
- Second, the use of the data gathered from this study that may potentially change and/or refine nursing practices and interventions to improve patient outcomes, reduce the number of readmissions, and decrease associated health care costs.

BACKGROUND INFORMATION/SIGNIFICANCE/SCIENTIFIC RATIONALE

Certain comorbidities are associated with an increased risk for readmission. According to Silverstein et al. (2008), these comorbidities include cancer, renal failure, paralysis, diabetes with chronic complications, heart failure, liver disease, and chronic obstructive pulmonary disease. Koekkoek et al. (2011) find common reasons for readmission to be dementia/delirium/ altered mental status, pneumonia, urinary tract infection, and using greater than 10 and/or greater than three new medications at time of discharge. Silverstein et al. (2008) report that other characteristics predictive of readmission include being 75 years or older, male, and African American; being treated in a medical versus surgical service, having Medicare-only insurance, and being discharged to an SNF. According to Stevens (2015), hip and knee arthroplasty were added to the 30-day readmission risk list in 2015 by the Centers For Medicare & Medicaid Services (2019) in their Hospital Readmission Reduction Program.

In addition to these identified above readmission characteristics, Boutwell et al. (2017) have coined the term “super utilizers” meaning patients who are frequent users of the acute care setting. This term, super utilizers, adds additional burden to the health care system. Boutwell et al. suggest that rather than viewing these patients as “complex,” “difficult,” or “nonadherent,” high utilization should be viewed as “a symptom of unmet needs” (p. 18) and utilization for these patients is driven by one or a combination of needs: medical, behavioral, and social (Boutwell et al., 2017, p. 30). It is important to consider all three categories when performing RCA so that a primary diagnosis, chief complaint, or complicated medical history is not mistaken as the root cause of an unplanned readmission. “It is the

human, individual reason that this person, with all his/her complexities and social needs comes to the hospital so frequently, while another person who is similar does not frequent the hospital” (Boutwell et al., 2017, p. 19).

RCA (Root Cause Analysis)

Peerally et al. (2017) call the RCA process “a method of structured risk identification and management in the aftermath of adverse events” (Peerally et al., 2017, p. 417). RCA, according to Lean Six Sigma Definition (n.d.) and Serrat (2010), was invented by Sakichi Toyoda for use in his family’s manufacturing company, which his son would eventually develop into Toyota Industries Corporation. Sakichi was convinced that every problem stems from a single root cause, which can be determined by asking the question “Why?” five times. Once the root cause is identified, a solution can then be applied. The goal of an RCA is to prevent the recurrence of a problem (Ouslander et al., 2016; Uberoi et al., 2007) using this solution. As Uberoi et al. suggest, the RCA approach may ultimately help to reduce the number of readmissions and the associated costs.

Percarpio et al. (2008) say that RCA is an analysis framework used in health care to determine systemic causes and prevent recurrences of adverse events. Iedema et al. (2006) reported that the Veterans Administration (VA) trialed RCA at four of its hospitals and went system-wide with it in 2000. The VA then took it a step further by using RCA, not only for clinical errors, but for “close calls” as well. In 2001, as reported by Neal et al. (2004), the Department of Health updated its publication: *Building a Safer NHS for Patients* to include “a plan to build expertise within the National Health Service in the technique of root cause analysis” (p. 75). The Joint Commission allows organizations to use assessment tools that they consider appropriate to achieve an outcome that will mitigate or

Sakichi was convinced that every problem stems from a single root cause, which can be determined by asking the question “Why?” five times. Once the root cause is identified, a solution can then be applied.

eliminate risk with RCA given as the first example of tools that might be used (The Joint Commission, 2020).

Participant Selection/Eligibility

The Readmission Prevention Team consists of three registered nurses who identify patients at high risk for readmission based on the noted below inclusion and exclusion criteria. A relationship is established by meeting the patient in the hospital and participating in patient care rounds. The readmission prevention nurse collaborates with the patient and caregivers, primary nurse, case manager, and hospitalist to facilitate an appropriate discharge plan. Any participant who has experienced a nonplanned readmission to the study hospital within 30 days of discharge is eligible for enrollment in the study.

Inclusion Criteria

- Admitted to the study hospital
- Enrolled in the Readmission Prevention Program
- Discharged from the study hospital to home, home with home care, SNF, or acute rehabilitation hospital
- Readmitted to the study hospital within 30 days of discharge

Exclusion Criteria

- Under the care of an Accountable Care Organization provider and/or Atrius provider
- Primary diagnosis of a behavioral health condition
- Admitted to the obstetrical service
- Returning to the hospital for a planned procedure or surgery
- Under observation status

Subject Enrollment/Consent Process

All patients who meet the inclusion criteria and have had a “5 Why RCA” worksheet completed on readmission from March 2018 to March 2020 will be included in the study. This worksheet will be coded with a study number to facilitate data analysis. To ensure anonymity, no patient identifiers were included on the worksheet. Participant risk, discomfort, and consent do not apply because this is a retrospective worksheet audit.

Study Design/Procedures

Using a descriptive, correlational, qualitative design, demographic data will be collected on each subject including age, gender, days between discharge and readmission, and the venue from which the

patient was admitted (Appendix A). The “5 Why RCA” (Appendix B with example), according to Bialek et al. (n.d.) is a questioning process designed to investigate the details of a problem. It includes a problem statement and five numbered lines in descending order for the responses to the “Why.” For data analysis, the last Why, as determined by the RCA, will be categorized as either medical, behavioral, and/or social.

Study Calendar/Schematic/Schedule

Following institutional review board approval, the 5 Whys worksheets completed at the study hospital from March 2018 to March 2020 were reviewed by the Readmission Prevention Team. Categorization of the last Why was done independently by each member of the Readmission Prevention Team applying the “category scheme procedure.” This procedure, defined by Polit and Beck (2006), involves “careful reading of the data with an eye to identifying underlying concepts and clusters of concepts.” Categories are developed based on scrutiny of the actual data. The category scheme “may focus on actions or events or on different phases in a chronologic unfolding of an experience. In developing it, related concepts are often grouped together to facilitate the coding process” (p. 384). For the purpose of this study, categories will be defined as medical, behavioral, and social. This particular scheme was described by Boutwell et al. (2017) in the New York State Department of Health *Series Program Final Report: Improving care for Super Utilizers* (2017).

Potential Risks and Discomforts

There are no risks or discomforts for subjects with this study, as only historic data will be collected from the “5 Whys” worksheet.

Potential Benefits

Potential benefits are changes in practice/protocols/interventions that could arise from the findings of the study. Such changes in practice could lead to better outcomes for patients at high risk for readmission and lower 30-day hospital readmission rates.

Significance to Nursing/Case Managers

Nurses/case managers are on the front line in all patient care domains. Readmission prevention nurses and case managers are charged with decreasing the number of unplanned hospital readmissions. The results of this study may help identify variables that contribute to these problems and show us the way to making them a part of the past.

Statistical Analysis

The coded data from the last Why were described by frequency and grouped by the following demographic criteria: age, gender, days between discharge and readmission, and the discharge venue. The frequencies of each group were statistically compared through one Pearson's chi-squared test for each demographic. Significance in the chi-squared test indicates the frequency of a coded readmission reason differs from an expected frequency based off the number of individuals in that group. If significance is found, an effect size will be calculated to determine the size and direction of the difference.

Data Management

All data were anonymous, maintained in a locked file cabinet, and accessible only by the investigators.

Data and Safety Monitoring and Quality Assurance

The primary investigator (PI) will assume responsibility for ensuring that data are maintained in a locked file cabinet located in the office of the investigator and accessible only to the PI and coinvestigators.

RESULTS

A total of 150 RCA worksheets met the study criteria and were reviewed by the Readmission Prevention Team both individually and then collectively.

Of the patients readmitted,

- 70% were females
- 30% were males

The age decades of those readmitted were the 70s and 80s as shown in Figure 1.

The discharge venues from where the patients were readmitted are noted in Figure 2.

The primary root cause categories of readmissions are demonstrated in Figure 3:

- medical causes (92%)
- behavioral health causes (17.3%)

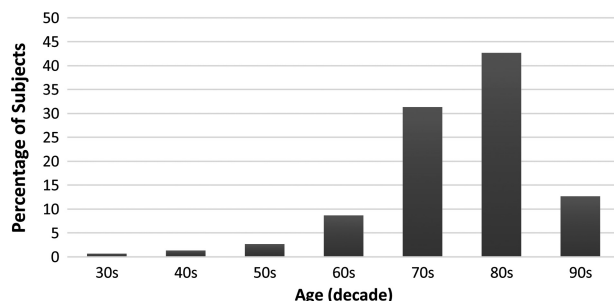


FIGURE 1
Subjects' age.

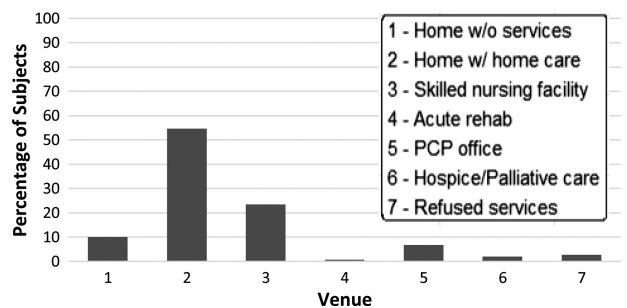


FIGURE 2
Venue from where subjects admitted.

- social root causes (6.7%).

A total of 19 (13%) of the readmissions showed multiple root causes:

- 11 had both medical and behavioral health root causes
- 2 had both medical and social root causes
- 1 had both behavioral health and social root causes
- 5 had all three root causes—medical, behavioral, and social

The days between the discharge and the readmission (see Figure 4) show a slight bell curve shape, which can be seen centering on approximately 2 weeks (mean = 13.89 days).

Examining each data set with a chi-square contingency analysis test, nonrandom trends were found in gender ($\chi^2 = 24$, $df = 1$, $n = 150$, $p \leq .001$), age ($\chi^2 = 169.95$, $df = 6$, $n = 150$, $p \leq .001$), and venue ($\chi^2 = 237.33$, $df = 6$, $n = 150$). The days between discharge and readmission showed a strong yet non-significant nonrandom trend ($\chi^2 = 24.507$, $df = 15$, $n = 150$, $p = .057$).

When the data on each readmission category (medical, behavioral, and social) are reviewed, some of the trends seen in the aggregate data are repeated with minor differences. In each readmission cause, the same gender and age trends are seen; however, behavioral readmissions show an overwhelming majority

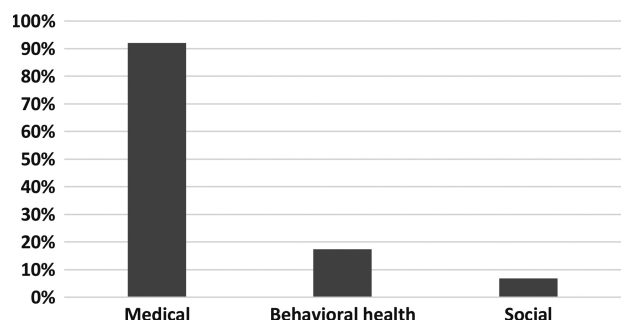


FIGURE 3
Root cause analysis of readmission.

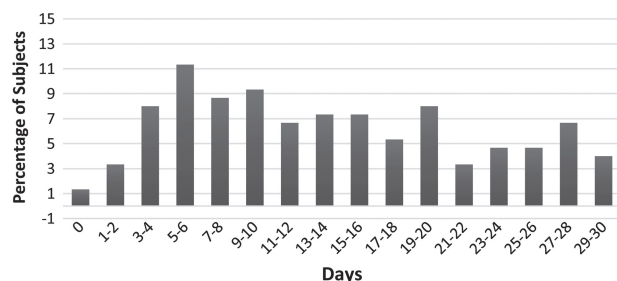


FIGURE 4

Days between discharge and readmission.

of patients in their 70s and few in their 80s, differing from the other two readmission causes. Another difference is in the social readmission venue area where patients were readmitted equally from home without services and home with home care and in the days between readmissions. These differences may be the result of the small number of social readmissions in the data set.

Discussion Section

The major root cause of unplanned readmissions for patients who returned to the hospital within 30 days was medical. This finding is consistent with that found in the literature—a medical exacerbation is the prominent readmission cause.

Although behavioral health and social root causes were identified, they were not as individually predictive of readmissions as the medical root cause. Nineteen of the subjects (13%) had multiple root causes for readmission. Of these 19 subjects, 11 had both medical and behavioral health root causes whereas five subjects had all three root causes. These findings indicate that the medical treatment plan for the patient on discharge needs to continue to be a major focus, but other aspects of the discharge plan should address the behavioral health and social needs of the patient.

The common venue from which the subject returned to the hospital was “home with home care.” This seems to indicate the patient needed more intensive care in the community than the home care clinicians could provide. Each patient is unique in their

health care needs, and the discharge plan developed in the hospital takes these needs into consideration. Determinants of the patient’s care can be medical, functional, and social (Alper et al., 2020) with the health care team assessing how best to meet these needs on discharge.

Occasionally, a patient may be borderline for home care but is insistent on going home. In these cases, developing a backup discharge plan or Option B may be needed. Prior to the patient being discharged home with home care, the patient can also be screened for an SNF. By having this backup venue for the patient, rehospitalization might be avoided. An important component of Option B is that it is clearly communicated to the patient/family, home care agency, and SNF.

The second most common venue from which subjects were readmitted was the SNF. This suggests that there might be an opportunity for these readmissions to be reviewed by both the hospital and the SNF to find whether there was a way to prevent them from happening. Communication that could avoid these readmissions might include the SNF health care providers calling the hospital emergency department (ED) to discuss the reason the patient is coming and what plan might help to return the patient to the SNF instead of admitting to the hospital. Important information to know by all involved would be the skills/diagnostic interventions that the SNF has in place to deal with the patient’s medical needs. Another innovative practice might be to develop a meeting of SNF administrators and appropriate hospital personnel to review these admissions to develop strategies to prevent them in the future.

The days between discharge and readmission show a bell curve from day 1 through days 19–20. This data confirms the need to monitor a patient’s health intensely through the 30-day window and does show the need to have medical follow-up appointments in a timely fashion.

Implications for Case Managers

The results of this study demonstrated that the majority of readmissions were related to the medical

The major root cause of unplanned readmissions for patients who returned to the hospital within 30 days was medical. This finding is consistent with that found in the literature—a medical exacerbation is the prominent readmission cause.

The days between discharge and readmission show a bell curve from day 1 through days 19–20. This data confirms the need to monitor a patient’s health intensely through the 30-day window and does show the need to have medical follow-up appointments in a timely fashion.

diagnosis, that the majority of patients were in their 70s and 80s, and that the readmission time frame was within 2 weeks of the initial discharge. Case managers and readmission prevention nurses already had strong processes in place for these discharge plans and follow-up.

Study results also show where more emphasis and creativity can be employed to potentially reduce further readmissions. Although the medical category was the predominant readmission cause, behavioral and social determinants of health also played a part in readmissions. These behavioral and social causes of readmissions should be reviewed to assess whether the hospital can develop or strengthen processes that might lessen their impact on readmissions.

The most frequent readmission venue was home with home care, which seems to indicate that the patient needed more care than what could be provided at home. One creative way of preventing this might be the development of Option B. If there was some question that home care might not sustain the patient at home, the patient could be screened for an SNF prior to discharge so that there would be a backup venue for the patient other than going to the hospital ED.

The second most common readmission venue was the SNF. More communication between the SNF and the hospital ED might reduce the number of readmissions. A process where the SNF nurse practitioner/physician calls the hospital ED to discuss the patient's condition could expedite the patient's care and reduce the number of readmissions to the hospital. Along with this process, developing an SNF skill capability list could help the hospital's ED providers understand the care that a patient can receive in the SNF. In addition, direct, regular communication could be established between SNF administrators and appropriate hospital personnel for more open dialogue on creating ways that might prove helpful to reduce readmissions.

REFERENCES

- Alper, E., O'Malley, T., & Greenwald, J. (2020). *Hospital discharge and readmissions*. Retrieved February 1, 2021, from <https://www.uptodate.com/contents/hospital-discharge-and-readmission#H4>
- Bialek, R., Duffy, G. L., & Moran, J. W. (n.d.). *Five whys and five hows*. Retrieved March 2, 2020, from <http://asq.org/healthcare-use/why-quality/five-whys.html>
- Boutwell, A. E., Kunst, E., Sorin, J., Shniffer, A., Logozzo, J., & Woodhouse, D. (2017). *DSRIP—Medicaid Accelerated eXchange (MAX) series program final report: Improving care for super utilizers*. https://www.health.ny.gov/health_care/medicaid/redesign/dsrp/pps_workshops/docs/2017-01_imp_care.pdf
- Center for Health Information and Analysis. (2020a). *Hospital-wide adult all-payer readmissions in Massachusetts: SFY 2011-2015*. Retrieved March 2, 2020, from <https://www.chiamass.gov/hospital-wide-adult-all-payer-readmissions-in-Massachusetts-SFY-2011-2015/>—December 2016
- Center for Health Information and Analysis. (2020b). *Hospital-wide adult all-payer readmissions in Massachusetts: SFY 2011-2017*. Retrieved March 2, 2020, from <https://www.chiamass.gov/hospital-wide-adult-all-payer-readmissions-in-Massachusetts-SFY-2011-2017/>—December 2018
- Centers for Medicare & Medicaid Services. (2019, November 19). *Hospital Readmission Reduction Program (HRRP)*. Retrieved December 9, 2019, from <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/Readmissions-Reduction-Program>
- Fluitman, K. S., Van Galen, L., Merten, H., Rombach, S. M., Brabrand, M., Cooksley, T., & Nanayakkara, P. W. B. (2016). Exploring the preventable causes of unplanned readmissions using root cause analysis: Coordination of care is the weakest link. *European Journal of Internal Medicine*, 30, 18–24. <https://doi.org/10.1016/j.ejim.2015.12.021>
- Iedema, R. A. M., Jorm, C., Long, D., Braithwaite, J., Travaglia, J., & Westbrook, M. (2006). Turning the medical gaze in upon itself: Root cause analysis and the investigation of clinical error. *Social Science & Medicine*, 62(7), 1605–1615. <https://doi.org/10.1016/j.socscimed.2005.08.049>
- Koekkoek, D., Bayley, K. B., Brown, A., & Rustvold, D. L. (2011). Hospitalists assess the causes of early hospital readmissions. *Journal of Hospital Medicine*, 6(7), 383–388. <https://doi.org/10.1002/jhm.909>
- Lean Six Sigma Definition. (n.d.). *Sakichi Toyoda*. <http://www.leansixsigmadefinition.com/glossary/sakichi-toyoda/>
- McIlvennan, C. K., Eapen, Z. J., & Allen, L. A. (2015). Hospital readmissions reduction program. *Circulation*, 131(20), 1796–1803. <https://doi.org/10.1161/CIRCULATIONAHA.14.010270>
- Neal, L. A., Watson, D., Hicks, T., & Porter, M. (2004). Root cause analysis applied to the investigation of serious untoward incidents in mental health services. *Psychiatric Bulletin*, 28(3), 75–77. <https://doi.org/10.1192/pb.28.3.75>
- Ouslander, J. G., Naharci, I., Engstrom, G., Shutes, J., Wolf, D. G., Alpert, G., & Newman, D. (2016). Root cause analyses of transfers of skilled nursing facility patients to acute hospitals: lessons learned for reducing unnecessary hospitalizations. *Journal of the American Medical Directors Association*, 17(3), 256–262. <https://doi.org/10.1016/j.jamda.2015.11.018>
- Peerally, M. F., Carr, S., Waring, J., & Dixon-Woods, M. (2017). The problem with root cause analysis. *BMJ Quality & Safety*, 26(5), 417–422. <https://doi.org/10.1136/bmjqs-2016-005511>
- Percarpio, K. B., Watts, B. V., & Weeks, W. B. (2008). The effectiveness of root cause analysis: What does the literature tell us? *The Joint Commission Journal on Quality and Patient Safety*, 34(7), 391–398. [https://doi.org/10.1016/s1553-7250\(08\)34049-5](https://doi.org/10.1016/s1553-7250(08)34049-5)

- Polit, D. F., & Beck, C. T. (2006). *Essentials of nursing research: Methods, appraisal and utilization* (6th ed., pp. 399–401). Lippincott, Williams & Wilkins
- Serrat, O. (2010). *Compendium of knowledge solutions: Tools, methods, and approaches to drive development forward and enhance its effects*. Asian Development Bank.
- Silverstein, M. D., Qin, H., Mercer, S. Q., Fong, J., & Haydar, Z. (2008). Risk factors for 30-day hospital readmission in patients ≥ 65 years of age. *Baylor University Medical Center Proceedings*, 21(4), 363–372. <https://doi.org/10.1080/08998280.2008.11928429>
- Stevens, S. (2015). Preventing 30-day readmissions. *Nursing Clinics of North America*, 50(1), 123–137. <https://doi.org/10.1016/j.cnur.2014.10.010>
- The Joint Commission. (2020). *How and when are risk assessments required to be performed?* Retrieved February 1, 2021, from <https://www.jointcommission.org/standards/standard-faqs/nursing-care-center/environment-of-care-ec/000001213/>

- Uberoi, R., Swati, E., Gupta, U., & Sibal, A. (2007). Root cause analysis in healthcare. *Apollo Medicine*, 4(1), 72–75. [https://doi.org/10.1016/s0976-0016\(11\)60440-7](https://doi.org/10.1016/s0976-0016(11)60440-7)

Cathy Wrotny, MS, RN, GCNS-BC, is an ANA-certified gerontological nurse specialist who has worked in the areas of acute care, community health, and education. She has spent the last 10 years developing expertise in readmission prevention.

Dona Bradley, BSN, RN, CHFNP, is a certified heart failure nurse who managed an outpatient telephonic Heart Failure Program. In addition to working in an ICU setting as well as home care, Dona has gained expertise in readmission prevention for over 10 years.

Maurice Brulé, BSN, RN, has worked as a critical care nurse as well as a home care nurse prior to joining the Readmission Prevention Team.

For more than 40 additional continuing education articles related to Case Management topics, go to NursingCenter.com/CE.

Lippincott®
NursingCenter®



CE

NCPD

Nursing Continuing
Professional Development

INSTRUCTIONS

Back So Soon? Part 2: Use of the 5 “Whys” Process in Unplanned Hospital Readmissions

Instructions:

- Read the article. The test for this CE activity can only be taken online at www.nursingcenter.com/ce/PCM.
- You will need to create (its free!) and login to your personal CE Planner account before taking online tests. Your planner will keep track of all your Lippincott Professional Development online CE activities for you.
- There is only one correct answer for each question. A passing score for this test is 7 correct answers. If you pass, you can print your certificate of earned contact hours and access the answer key. If you fail, you have the option of taking the test again at no additional cost.
- For questions, contact Lippincott Professional Development: 1-800-787-8985.

Continuing Education Information for Certified Case Managers:

This Continuing Education (CE) program is provided by Lippincott Professional Development and has been preapproved by the Commission for Case Manager Certification (CCMC) to provide CE credit to Certified Case Managers (CCMs) for 1.0 contact hours. This CE program is approved for meeting the requirements for certification renewal.

Registration Deadline: July 1, 2022

Continuing Education Information for Certified Professionals in Healthcare Quality (CPHQ):

This continuing education (CE) activity is provided by Lippincott Professional Development and has been approved by the National

Association for Healthcare Quality (NAHQ) for 2.0 CE Hours. CPHQ CE Hours are based on a 60-minute hour. This CE is approved for meeting requirements for certification renewal.

This CPHQ CE activity expires on July 1, 2022.

Continuing Education Information for Nurses:

Lippincott Professional Development will award 2.0 contact hours for this continuing nursing education activity.

LPD is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation.

This activity is also provider approved by the California Board of Registered Nursing, Provider Number CEP 11749. LPD is also an approved provider by the District of Columbia, Georgia, and Florida CE Broker #50-1223.

Registration Deadline for Nurses: July 1, 2022

Disclosure Statement:

The author and planners have disclosed no potential conflicts of interest, financial or otherwise.

Payment and Discounts:

- The registration fee for this test is \$21.95
- CMSA members can save 25% on all CE activities from *Professional Case Management*! Contact your CMSA representative to obtain the discount code to use when payment for the CE is requested.

DOI: 10.1097/NCM.0000000000000517

APPENDIX A

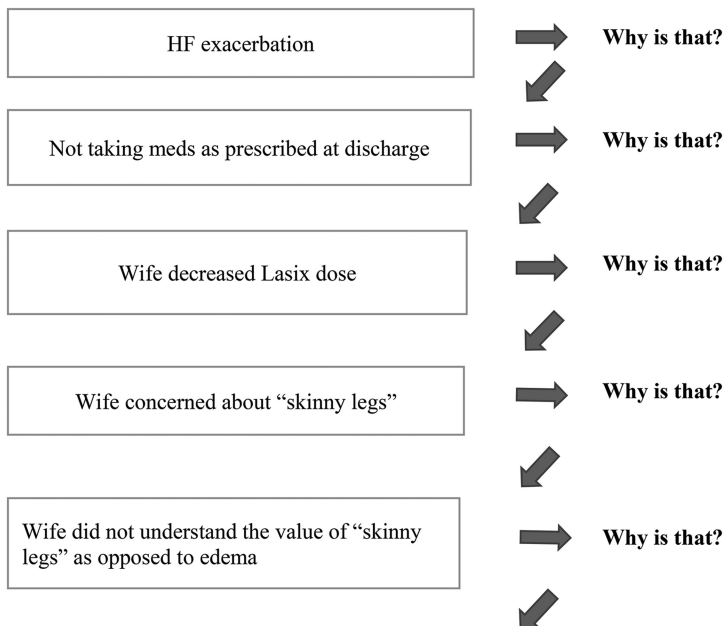
5 Why Data Collection Too

Subject #	Age	Gender	Days Between	Venue	Medical	Behavioral Health	Social

APPENDIX B

5 Whys Investigation Worksheet

Date of Discharge: 4/2/18 **Readmission Date:** 4/16/18 **Readmission Venue:** Home Care
Define the Problem: 82 year male with COPD, HF. Lives at home with his wife. SOB, 10 lb. weight gain
Readmitted from ER:



Readmission Prevention Plan: Teach wife about Heart failure, medication regimen. Follow-up to make sure that home care nurse understands the situation. Call or visit the patient within 4 days to assure medications are being taken as prescribed. Send note to primary care physician about the situation. Enter Readmission Prevention Plan in EPIC for emergency department providers to understand how to "treat and street" if this happens again.