

**An Evaluation of Deferrals within the Patient Transitioning Process
from Inpatient Acute Care to the Community Living Center
at the Lexington VA Medical Center**

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Table of Contents

Executive Summary3

Introduction.....4

 Research Question

Research Design.....6

 Problem and Research Questions

 Structure of Design

 Data Sources

 Sample Design

 Analysis Tools

Literature Review.....10

 The VA’s Internal Program Evaluation Framework

 External Theories

 Patient Flow

Analysis.....13

 Flowchart

 Data Analysis and Evaluation

 Deferrals

 Impact of Deferrals

 Financial Analysis

Conclusions.....25

 Limitations

 Recommendations

References.....29

 Acknowledgement

Appendices

Appendix A: Extended Care Screening FY10

Appendix B: Impact of Deferrals Regression Tables

Executive Summary

I. Problem

As part of a national collaborative, the Lexington Veterans Affairs Medical Center (VA) began an internal assessment of a patient transitioning process. Specifically addressing patient movement from its inpatient acute care facilities to its community living center (CLC), data were extracted for 236 patients screened for community living center admittance from October 2009 through January 2010. To assist with this analysis, I chose to evaluate deferrals, the decisions to delay treatment or movement of a patient, to assess if and how they affected patient flow within the transitioning levels of care project.

II. Literature Review

Sources providing relevant material for internal VA systems, program evaluation, patient flow and delays were used as tools to supplement the research design. This literature included: systems redesign framework, methodological and substantive evaluation matrices, the total quality management process and delay evaluation points.

III. Research and Analysis

Primarily a descriptive evaluation, the project incorporated program evaluation, flow mapping, simple statistical analysis, regression, and financial analysis. Overall, deferrals were found to increase length of stay in the patient transitioning system while discharge planning and bed availability significantly impacted the flow process. Furthermore, deferrals came at an expense to the VA. Cooper Drive patients admitted to the CLC with delays greater than VA standards generated a net cost of \$150,500. The presence of deferrals in the patient transitioning process from screening to completion was projected to average \$375,580 in inpatient expense.

IV. Recommendations

There were opportunities to make recommendations to the VA for further patient flow evaluation. The seven recommendations suggested to the VA were:

1. Assess the decision to defer to help minimize average deferral length of stay;
2. Review the discharge planning process for greater efficiency;
3. Analyze short-stay rehab to understand why there are wait-listing issues;
4. Research the possibility of weekend transfers through the addition of an admitting physician at the CLC;
5. Assess the possibility of shifting the 1010EC financial assessment responsibility to the financial department;
6. Continue the collaborative assessment for a year and analyze data quarterly for measurement improvement and replication purposes; and
7. Establish audit parameters for patient records to decrease incomplete files.

Introduction

The Veterans Administration (VA) Medical Center strives to provide efficient and effective healthcare services for America's military. To ensure continual improvement in service delivery, the VA has developed its own framework of quality improvement measures. Its internal system redesign framework, stemming from the VA's National Office of System Redesign, incorporates the following elements: vision, analysis, team, aim, map, measure, change and sustain.⁵

As a national collaborative for 2010, the VA proposed three topics from which participating facilities could choose for process improvement research. These focus areas included: Transitioning Levels of Care (TLC), Bedside Care, and Patient Flow Coordination. As part of the collaborative, the Lexington VA Medical Center chose to pursue the Transitioning Levels of Care collaborative. The goal of this project as deemed by the national VA was "to help facilities find ways to improve the care for veteran patients at the level most appropriate for them" with an expected outcome of "transitioning patients more efficiently to the next level of care."⁵

Pursuing the TLC collaborative, the Lexington VA Medical Center chose to assess the transitioning of patients from its inpatient acute care units to its long-term care facility, and more specifically, the community living center (CLC). The Lexington VA Medical Center's acute care center and long-term care facility are on two different campuses so patient movement between them involves extended coordination efforts making the process staff intensive. However, the daily cost of the long-term care facility, with 64 beds, is less expensive, at approximately \$250 per day, compared to inpatient acute care, which costs an average of \$2000 per day, according to materials from the

VA administration. Thus, there are substantial incentives both financially and administratively to assess this particular transition.

Research Question

Given the large scale project, however, the team, composed of the Director of Research, the CLC admitting physician, VA administrators, nurses and the inter-facility liaison, identified four components of the process that should be analyzed to more fully address variability in the patient transition. These four areas included inpatient acute care length of stay, the inpatient acute care screening process for CLC, the waiting period from acceptance to placement in the CLC and the readmissions effect from CLC back to inpatient acute care. Given the target components of the patient transitioning process, the collaborative team focused on researching the following questions:

1. How does the length of stay (LOS) in inpatient acute care affect this patient transitioning process?
2. How long does it take to screen patients for CLC acceptance – including the financial assessment?
3. What delays occur from the time a patient is accepted to the time the patient is placed in the CLC? and
4. What is the impact on the patient transition process of readmissions that occur from the CLC back to inpatient acute care?

However, to narrow the scope of the transitional levels of care assessment, I chose to address a component that would affect multiple target areas: how deferrals affect patient transitioning from inpatient acute care to the CLC.

Deferrals are reasons for delays that may prolong the next step in the particular patient transitioning process. They may delay physical care, administrative discharge or other processes. For example, a patient referred for CLC review on October 7, 2009 was deferred from further movement on October 8 because there was no bed

availability in short stay rehab. Five days later, however, the patient was admitted from inpatient ward 3S to the CLC's short stay rehab unit. Thus, bed availability was the deferral reason for this patient and it prolonged the patient's stay in inpatient acute care and delayed the patient's access to rehab services.

In this patient transitioning process, deferrals have the potential to slow the entire process. When a patient is deferred, the patient transitioning process may not only delay patients from entering the CLC but also delay patients coming into acute care. As reflected in the example above, the lack of beds in short stay rehab prolonged the patient's inpatient acute care stay. This in turn could have delayed another patient from being admitted to inpatient acute care. So a deferral rooted at the CLC has the potential to slow inpatient movement to the CLC and movement into inpatient care wards. Therefore, to gauge if and how deferrals impact this entire transitioning process, I designed a research component to assess the deferral details, to evaluate how deferrals impact patient flow and to estimate the financial implications of deferrals.

Research Design

Problem and Research Questions

To analyze the raw data, basic information should be described. The number of observations or patients screened for CLC admittance and from where the patients are being referred are basic information that describes the dataset. Additionally, the screening decisions, deferral reasons, and the number of patients admitted to the CLC provide further fundamental information. Frequencies of these data also need to be reflected for impact. Thus, each of these analyses may provide a foundation for further evaluation.

Next, to best understand the patient transitioning process from inpatient acute care to the community living center and in what ways delays are associated with this process, several research questions need to be addressed. In terms of flow, what is the patient flow process? What are days associated with segments of these processes such as: what is the average number of days from initial screening to screening completion and from initial screening to CLC admittance? How many patients exceed two days length of stay from screening completion to admittance to the CLC? Is there a pattern regarding the days of the week patient transition delays are more likely to exceed VA standards? Are these delays within the VA's control? These questions will help assess transition barriers throughout the patient transitioning process.

Last, a financial assessment needs to be reflected in the evaluation to better indicate to the VA the opportunity costs. By analyzing the cost of deferrals in inpatient acute care for patients who should be admitted into the CLC, the dollar amount can be used to gauge what opportunity costs the VA may be experiencing. This assessment may give a clearer understanding of what financial implications deferrals have on the patient transition process in this TLC collaborative.

Structure of Design

The research design will utilize a combination of approaches. First and foremost, program evaluation will be conducted where cross-sectional data will be obtained and compared for a descriptive analysis. Secondly, statistical analysis will be performed to gauge frequency and significance where needed. Some internal VA standards will be used to compare actual outcomes to desired outcomes. Lastly, simple financial analysis measures will be used to help the VA see the costs associated with deferrals.

Variables of Interest

Given the number of research questions, many variables will be relevant in this research design. The types of deferrals, patient location, dates of evaluation completion, assessment decisions, CLC admittance dates and average costs per patient deferral will be the main variables of interest. These variables will be evaluated using the analysis tools discussed later.

Data Sources

As the Lexington VA Medical Center has already implemented an Electronic Medical Records (EMR) system, data retrieval and report generation over a span of time and patients will be performed with this system's data. The report that will be utilized most substantially for this evaluation is an already generated spreadsheet found in Appendix A entitled Extended Care Screening FY10. It contains the following information:

1. The name and social security number of the patient (removed for privacy);
2. The service relation of the patient;
3. The clinic and primary care physician of the referred patient;
4. The location of the patient when the consultation was requested;
5. The date the physician or team requested the CLC consult or referral;
6. The date of completion for the:
 - a. Social worker's Geriatric Extended Care (GEC) report;
 - b. Nurse's GEC recommendation;
 - c. Nurse's GEC assessment; and
 - d. Screening process (includes the three GEC reports).
7. The decision of the screening committee;

8. The admittance location (if admitted to the CLC);
9. The date admitted to the CLC;
10. The number of days a patient was on the waiting list; and
11. Comments (deferral information).

Further data will be obtained by observing patients and the patient transitioning process. Observations at both the inpatient acute care and long-term care units will be performed and documented. Interviews with administrators and clinical staff will also be performed. Furthermore, relevant financial data will be obtained from VA administration.

Sample Design

The primary sample for the TLC assessment has already been identified by the Lexington VA's collaborative team. Data from the fourth quarter of 2009 and January 2010 will be assessed for patients screened for community living center placement. This sample contains 236 patients from Lexington, the surrounding areas, and out-of-state. Furthermore, this sample reflects more than half of all patients screened for CLC admittance in 2009. It includes all patients referred for CLC review within the four months and reflects the newest VA recording standards, which were effective October 2010. The dataset represents a random sample as each patient had an equal chance of being deferred. However, it may not be generalized to the entire VA system as flow processes and deferral types may vary among departments.

Analysis Tools

To determine the association of variables and to gauge the significance of and variable relationships in the patient transitioning process, frequency tables, simple statistics and regression will be used. Flowcharting will also be used as a qualitative

measure. Lastly, financial analysis will also be performed to address the costs and opportunity costs associated with deferrals.

Literature Review

To effectively assess the patient transitioning processes at the VA, understanding the internal VA measures for assessment, as well as external program evaluation and process improvement theories may be helpful. To more thoroughly address reasons for delay in transitioning levels of care, literature on deferrals may provide further assistance. Thus, these four topics are discussed below.

The VA's Internal Program Evaluation Framework

As previously mentioned, the VA has an already established framework for program evaluation, TAMMCS – team, aim, map, measure, change and sustain. The VA's goal in having this process is to “clarify and facilitate ongoing work,” or continual process improvement. First, an interdisciplinary team should be established where all members have a voice and training opportunities. Next, the team should have a clear goal where data are used and quantifiable aims are established. This step is followed by flowcharting. By mapping out processes, “key decision points” can be exposed and better evaluated, which may lead to measurement. The VA does not look for perfect information or evaluation. Instead, the agency looks for a diagnosis that is simply sufficient. However, the VA specifically states that there should be a “measure for timeliness or delay” which would directly affect deferral measurement.

Once analysis has been completed, the last two steps: change and sustain, evolve from recommendations. If necessary, change is expected and improvement measures implemented. Furthermore, as changes are incorporated, the VA continues to

