University of Michigan Health System

Analysis of Pediatric Readmission Rates

Final Report

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Executive Summary

Mott Children’s Hospital is focused on continuously reducing their readmission rate by working with their staff and patients. According to Clinical Information & Decision Support Services, as of 2012 Mott Children’s Hospital has a readmission rate of 6%. Most research with readmissions has been done by looking at past readmitted patient demographics and diseases; however, Mott Children’s Hospital Readmission Team wants to study current readmitted patients to find the root causes of why these patients are returning to the hospital. Therefore, the Nurse Manager of Mott Unit 11-West worked with a University of Michigan IOE 481 student team to evaluate the readmission process and recommend refinements of patient care practices to reduce readmission rates.

By identifying weak points in the patient’s journey, the student team developed recommendations to increase patient satisfaction, provide extra precautionary measures during patient care procedures, and optimize capacity for patients that need hospital care. The project focused on patients from 7-East, 11-West, 12-East, and 12-West inpatient units. This project does not take into account the financial cost of readmissions and focused more on identification of root causes of readmission.

Methods and Findings

Data collection was broken up into six parts: literature search, shadowing and interviews, doctor and nurse surveys, primary care physician surveys, patient family surveys, and Ohio Children’s Hospital Solution for Patient Safety (OCHSPS) email interviews. The literature search, shadowing, and interviews were used to create surveys for patient families, doctors and nurses, and primary care physicians. Surveys were distributed to nurses, physicians, and patient families in the 7-East, 11-West, 12-West, and 12-East inpatient units, along with primary care providers in outside clinics. Once the readmitted patients were identified, a survey was emailed to the primary care physician, and to admitting and discharging nurses and doctors associated with the readmitted patient. A paper survey was distributed to each patient’s room for the patient’s family to complete. The team collected data for 69 patients, which includes 137 doctors and nurses, three primary care physicians, and 18 patient’s families. Survey results were compared with OCHSPS email interviews to evaluate common trends in patient care. However, the results from OCHSPS were inconclusive.

A combination of all the survey results provided information to find the proportion of preventable readmissions, the agreement between doctors and nurses, the causes of readmission, and the overall results from patient families, through various perspectives.

Proportion of Preventable Readmissions
Out of a sample size of 69 patients, 16 patients were categorized as a preventable readmission. This result is based off of the Qualtrics surveys given to the doctors and nurses. A patient readmission was categorized as preventable if at least one nurse or doctor survey response confirmed. Therefore, the results show a proportion of preventable readmission of 23%.

Agreement between Doctors and Nurses
There were 12 out of 16 instances where there was a disagreement on the preventability of the readmission between the team of nurses and doctors. Admitting doctors were generally 20%
more aware than discharging doctors and nurses that their patients are readmitted in the hospital. No other trend was found when comparing doctor and nurse survey responses.

**Causes of Preventable Readmissions**
From the survey responses five causes were found. The results showed that the causes for preventable readmission were broken down into 39% home routine, 28% not discharge ready, 22% education, 6% follow up issues, and 6% miscommunication.

**Patient Family Surveys**
From 17 survey responses 5 families thought their child’s readmission was preventable. Of those 5 families, 80% did not think that their child was ready to be discharged during their first hospital visit.

**Conclusions and Recommendations**
From the collected data, the student team determined common elements across patients’ readmission. The team looked for failures in the current process and developed recommendations to make improvements.

From the findings three conclusions were made. First, the major reasons for preventable readmission are Home Routine (38% of preventable readmissions), Not Discharge Ready (27%), and Education (22%). Second, 80% of preventable readmitted patient families do not feel that their child is ready to be discharged before leaving the hospital. This cause could conclude that since families were not ready to leave the hospital when the doctor discharges the patient that there may be a lack of communication in the discharge process. Lastly, admitting doctors were 20% more aware than discharging doctors and all nurses that their patients were readmitted in the hospital.

Based off of the three conclusions, four recommendations were developed:

- School of education consulting
- Family supported discharge
- Post-discharge status schedule
- Real-time visual displays

Recommendations were developed with low cost in mind considering that preventable readmissions are a small portion of patients admitted to Mott Children’s Hospital.

**School of Education Consulting**
Since home routine, follow up, and education issues cover 66% of preventable readmissions, Mott should bring in the University Of Michigan School Of Education students to reevaluate current education techniques and provide a new perspective. Consulting from the School of Education will provide Mott with a cost effective way to develop and test innovative ways to education patient families while providing perspective from students not generally in a hospital setting.
**Family Supported Discharge**
Since 80% of preventable readmitted patient families did not think their child was ready to be discharged the first time, Mott should implement a method for families to provide input in whether their child is to be discharged. Family supported discharge will provide Mott an efficient way to communicate with patient families while improving patient care and satisfaction.

**Post-discharge Status Schedule**
Home routine is the largest cause of preventable readmissions; thus, patient families may not be equipped or ready to take care of their child at home. Therefore, Mott should create case specific schedules to be given to families during discharge identifying doctor expectations of patients over a short period of time (1-2 weeks). The schedules should include information of medication, symptoms, and actions that patient should take. Post-discharge status schedule will provide Mott with an improvement in the quality of patient care and improve communication with patient families.

**Real-time Visual Displays**
Patient education, lack of a communication network, doctor/nurse awareness, and doctor/nurse patient outcome feedback are all issues of concern at Mott; therefore, overall hospital communication should be improved. Mott should implement two visual systems (for doctors/nurses and for patient families) that will constantly display patient status, such as a whiteboard or TV. Real-time visual displays will improve quality of patient care, improve patient satisfaction, and create a standardized outcome feedback network.
Introduction

Each year 6.6 million patients are readmitted across all U.S. pediatric hospitals causing $1.65 billion in losses (Berry). This substantial loss of money is because insurance companies do not always compensate hospitals for readmitted patient care. Hospitals also lose money because readmitted patients take up hospital capacity that could be used for newly admitted patients. Currently the Ohio Children’s Hospital Solution for Patient Safety (OCHSPS) has joined 33 children’s hospitals across the United States to give the institutions an opportunity to discuss and address the nationwide problem of increasing readmission rates. As a part of C.S. Mott Children’s Hospital, the Mott Readmission Team is working with OCHSPS to reduce readmissions at Mott. According to Clinical Information & Decision Support Services, as of 2012 Mott Children’s Hospital has a readmission rate of 6%. Mott Children’s Hospital is focused on continuously reducing their readmission rate by working with staff, patients, and the OCHSPS.

Therefore, the Nurse Manager of Mott Children’s Unit 11-West asked a University of Michigan IOE 481 student team to recommend refinements to patient care practices to reduce readmission rates. To accomplish this task, the team was asked to conduct a series of studies on tasks involved in the patient care. Analysis of care processes in detail enabled the team to identify the processes that worked well and processes that would benefit from improvement, to shed light on the reasons for readmission, and to understand the relationship between the patient care process and quality of care. This report presents the team’s findings and conclusions of current patient care and readmission processes, including data collection through interviews and surveys, detailed data analysis, and final recommendations for the nurse manager.

Background

A readmitted patient is an individual that is admitted to the hospital up to 30 days after being discharged with an issue related to the previous visit. However, there is known to be variability in the return time for a patient to be categorized as a readmission. A Vanderbilt readmission study determined that 20% of readmissions in their children’s hospital are preventable (Hain, 2012). Vanderbilt has an overall readmission rate of 9%, which is slightly higher than Mott. In the same Vanderbilt study, an example of a common preventable readmission is lack of medication knowledge and instruction. The patients’ and parents’ lack of knowledge regarding the usage of certain medications caused immediate readmission to the hospital. The Nurse Manager of Mott Children’s Unit 11-West is most interested in the uncertainty of the behavioral issues that cause readmission. Until now, the Mott Readmission Team had no data that supports that a patient’s home care is associated with readmission rates.

Readmission is also an issue for insurance companies in regards to patient care. According to the Mott Readmission team, when a patient is readmitted, the hospital bill may not be covered by insurance and the financing comes from Mott Children's Hospital. Therefore, keeping readmission rates low is important not only for patient satisfaction but for hospital financing. Lastly, a readmitted patient will continue to consume valuable hospital resources. Readmitted patients use hospital resources (nurses, doctors, beds, etc.) that could be used for a newly admitted patient.
The OCHSPS and Mott Readmission Team had been working to develop new patient care practices to help reduce readmission but did not have the necessary data to do so. Since patient care directly affects readmission, the student team examined the patient care process. The student team investigated the patient care process further to identify unknown root causes for readmission. This project determined the weak points in the patient’s journey at the hospital, which took place from a patient’s initial admittance to discharge, and provide recommendations to improve patient care and reduce readmission percentages.

Key Issues

The following key issues were driving the need for this project.

- Readmission causes dissatisfaction of patient care to families.
- Readmission provides an inconvenient trip for families.
- Insurance companies may not pay the hospital for a patient’s readmitted stay, leaving the cost to the hospital.
- Readmitting a patient uses extra space and resources (nurses, doctors, beds, etc.) that could be used for a new patient.

Goals and Objectives

To recommend refinements of patient care practices for Mott Children's Hospital, the student team performed the following tasks:

- Identified weak points in the patient’s journey.
- Conducted a series of studies on patient care including observations, interviews, and surveys to find the root cause of patient readmission.

With this information the team developed recommendations to:

- Increase patient satisfaction.
- Provide extra precautionary measures during patient care procedures.
- Optimize capacity for patients that need hospital care by allowing services to be allocated to patients who are not readmitted.

Project Scope

This project scope was all inpatient divisions who have been readmitted at Mott Children’s Hospital. Therefore, the team worked with units 7-East, 11-West, 12-East, and 12-West. For this project, a readmission was defined only as a previously discharged patient returning to the hospital with the similar problem or complication of the prior medical issue within 30 days.

The student team focused on the root cause of each readmission. The main concern was to identify the insufficiencies from the previous visit and the reason behind the patient’s initial discharge. Data was collected individually about each readmitted patient, then compiled and analyzed as a whole. Financial cost of the readmitted patients was not included in the project, but the hospital will ultimately save more money through reducing readmission rates. Readmitted patient expenses are directly related to readmission rates, i.e. as readmission rates increase,
hospitals spend more money on the care of readmitted patients. Patients within the psychiatry department were not considered. Psychiatry patients go through a different patient care process throughout their hospital stay and therefore comparing psychiatry patients to the rest of the patient population was unreasonable.

Methods

The primary parties associated with the patient care process included patients, families of patients, nurses, doctors, primary care physicians, and the OCHSPS. Therefore, data collection was broken up into six parts: literature search, shadowing and interviews, doctor and nurse surveys, primary care physician surveys, patient family surveys, and OCHSPS email interviews. Data analysis consisted of cross referencing commonalities between six groups.

Data Collection

Data was collected in the form of shadowing, interviews, and surveys. Shadowing and interviewing were done with doctors, nurses, primary care physicians, and patient families. The team also performed a literature search to better understand the correlation between patient care and readmission rates.

Literature Search
The team performed a literature search to understand patient readmission. The search was used to widen the student team’s knowledge on pediatric readmission and to get a better understanding of the protocols and procedures involved with readmitted patients. This included studies from Vanderbilt Hospital and OCHSPS.

Shadowing and Interviews
The team shadowed 10 nurses from the four units in the project scope: 7-East, 11-West, 12-West, and 12-East. The four doctors that were interviewed all work in the four units of focus. In addition, the team interviewed two primary care physicians from outside clinics.

Through interviewing doctors and shadowing nurses, the team created a list of questions for each survey, which were approved by the 11-West Nurse Manager and Administrative Manager. The list of questions was modified to create surveys. The surveys cover the main concerns from the doctors and the nurses interviewed. Three survey types were created: doctor and nurse survey, a primary care physician survey, and a patient family survey.

Doctor and Nurse Surveys
Once the student team received the daily list of readmitted patients, the team distributed the surveys through Qualtrics to corresponding doctors and nurses daily. A list of the survey questions given to the nurses and doctors is shown in Appendix 4. The student team then followed the survey distribution procedure in Appendix 1 to receive survey responses in an appropriate time frame. The student team pilot tested 20 Qualtrics surveys over two days to eliminate problems within the survey distribution procedure. The surveys were sent to nurses and doctors associated with five readmitted patients. Due to errors in the pilot test, precautions when distributing surveys were taken to ensure that surveys were sent to the correct doctor or nurse. These precautions included adding the patient medical record number to the subject line of
the emailed surveys. Surveys were sent to nurses and doctors associated with 69 patients. The student team received responses from 131 doctors and nurses. The response rate was 47% for doctors and nurses combined.

**Primary Care Physician Surveys**
The team sent surveys to the primary care physicians through email. The primary care physicians were asked two standard questions to understand the physician’s role and communication with the readmitted patient. An example email is shown in Appendix 4. Survey questions were developed through interviews with primary care physicians. Surveys were sent to 12 primary care physicians, of which only three responded. Due to the lack of data, the primary care physician survey results were not used in the findings.

**Patient/Patient Family Surveys**
Surveys for patient families were distributed as paper surveys by the student team, shown in Appendix 2. The project coordinator requested that these surveys be written at approximately a 5th grade reading level, and the project coordinator confirmed the quality of the surveys before the distribution began. Surveys were kept short in order to consider the patient and their family. Survey drop off folders were been placed at the clerk’s desk in each of the four units in the project scope. If possible, the student team attempted to fill out the survey with the family to receive immediate feedback. However, when the patient’s family was unable to fill out the survey when the student team is in the room, the patient’s nurse were asked to return the survey to the drop off folder upon completion. Eighteen patient families responded to the surveys, giving a response rate of 55%.

**OCHSPS Email Interviews**
The student team contacted 30 hospitals within the OCHSPS to understand how various hospitals across the nation are addressing readmissions. The hospitals were asked to elaborate on techniques that have proven to reduce readmission rates. Further, the hospitals were asked to explain the most common, preventable reason patients are being readmitted to their hospital. Nine hospitals replied that their data analysis had just begun and do not currently have data on readmission patients. Children’s Hospital Of Kings Daughter in Virginia responded that education to patient families was a major issue; however had yet to implement any countermeasures that have proven to show reduced readmission rates.

**Data Analysis**
The student team analyzed the interview, Qualtrics surveys, and paper survey results. Data analysis was broken up into four steps. First, results were compiled into four Excel sheets to analyze results from patient families, nurses, doctors, and primary care physicians. The team separated and sorted the data by preventable and non-preventable readmissions based on physicians’ assessments. The student team was only concerned with finding the root cause of preventable readmissions. Third, through displaying the data visually with charts in Excel, the data from the four different sample categories was compared with each other to find a common result. Root causes of preventable readmissions were determined once data was compared and analyzed to find commonalities. Lastly, the student team looked for commonalities over six groups of results:
Survey questions and follow-up questions that were not mutual to all four sample categories were only compared in their respected categories. The result of this analysis indicated the root causes for patients returning to the hospital and provided information the hospital can use to reduce readmission rates.

Findings

Data was analyzed to find the proportion of preventable readmissions, the agreement between doctors and nurses, the causes of readmission, and the overall results from patient families.

Proportion of Preventable Readmissions

Out of a sample size of 69 patients, 16 patients were categorized as a preventable readmission. This result is based off of the Qualtrics surveys given to the doctors and nurses. A patient readmission was categorized as preventable if at least one nurse or doctor survey response confirmed. Therefore, the results show a proportion of preventable readmission of 23%.

Patients were also separated by division to receive a proportion of preventable readmissions for each. Pediatrics General Division had the largest amount of readmissions followed by Pediatrics Hematology. The proportions of preventable readmissions for each division are displayed in Figure 1:
Agreement between Doctors and Nurses

There were 12 out of 16 instances where there was a disagreement on the preventability of the readmission between the team of nurses and doctors. The results from comparing the commonalities over five groups below had no significant trend between responses:

- All nurses
- All doctors
- Discharge nurses and doctors
- Admitted nurses and doctors
- Primary care physicians and doctors

Since only two responses were received from primary care physicians no justified conclusions could be made with the data. However, admitting doctors were on average 20% more aware, than discharging doctors and all nurses, that the patient being treated had been readmitted into the hospital. The 75% awareness of readmission for admitting doctors was compared to the rest of the doctors and nurses in Figure 2:
Figure 2: Awareness of Patient Readmission
Sample size: 50, Data Collection Period: Mar. 11, 2013 – Apr. 8, 2013, Source: IOE 481 Surveys

Causes of Preventable Readmission

Out of the 16 preventable patient readmissions, there were 18 survey responses from doctors and nurses with regards to the causes. Each response was classified into only one of the five causes below:

- Education
- Home Routine
- Not Discharge Ready
- Follow-up Issues
- Miscommunication

Figure 3 shows Home Routine being the most common cause of preventable readmission:
Figure 3: Preventable Readmissions Causes
Sample size: 18, Data Collection Period: Mar. 11, 2013 – Apr. 8, 2013, Source: IOE 481 Surveys

Patient Family Surveys

From 17 survey responses, 5 families thought their child’s readmission was preventable. Of those 5 families, 80% did not think that their child was ready to be discharged during their first hospital visit. 56% of families said someone followed up with them after being discharged. While 82% tried to contact someone before returning to the hospital and all but one family was able to find someone to assist them.

Additional Findings

In addition the following findings were found, however were not conclusively related to preventing readmission:

- 62% of doctors and nurses knew their patient was categorized as a readmission
- Families were present during patient care 89% of the time
- 82% of families were invested in child’s medical care
- Primary care physician were notified 72% of the time

Conclusions and Recommendations

From the findings three conclusions were made. First, the major reasons for preventable readmission are Home Routine (38% of preventable readmissions), Not Discharge Ready (27%), and Education (22%). Second, 80% of preventable readmitted patient families do not feel that their child is ready to be discharged before leaving the hospital. This cause could conclude that since families were not ready to leave the hospital when the doctor discharges the patient that
there may be a lack of communication in the discharge process. Lastly, admitting doctors were 20% more aware than discharging doctors and all nurses that their patients are readmitted in the hospital.

Based off of the three conclusions four recommendations were developed:

- School of education consulting
- Family supported discharge
- Post-discharge status schedule
- Real-time visual displays

Recommendations were developed with low cost in mind considering that preventable readmissions are a small portion of patients admitted to Mott Children’s Hospital.

**School of Education Consulting**

Since home routine, education, and follow-up issues account for 66% of preventable readmissions; family education and involvement should be a main concern for Mott Children’s Hospital. Therefore, Mott Children’s Hospital should bring in the University Of Michigan School Of Education students into the hospital to provide a new perspective on education techniques. These students could be given school projects that look at education similarly to how Mott Children’s Hospital currently collaborates with the College of Engineering. Consulting from the School of Education will provide Mott with a cost effective way to develop and test innovative ways to education patient families while providing perspective from students not generally in a hospital setting.

**Family Supported Discharge**

Since 80% of preventable readmission patient families are not ready to leave the hospital when discharged; there is a lack of communication between patient families and doctors/nurses. Therefore, Mott Children’s Hospital should provide a method for families to provide input in whether their child is ready to leave the hospital. This can take effect in various forms. For example, nurses and doctors can ask the family how they think their child is doing or an actual system could be implemented so that families could electronically or visual inform someone they need more time at the hospital. Family supported discharge will provide Mott with a way to communicate more efficiently with patient families as well as have a better understanding of families feel while improving patient care and satisfaction.

**Post-Discharge Status Schedule**

Since home routine is the largest cause of preventable readmissions; patient families may not be equipped or ready to take care of their child at home. Therefore, Mott should create case specific schedules to be given to families during discharge identifying doctor expectations of patients over a short period of time (1-2 weeks). The schedules should include information of medication, symptoms, and actions that patient should take. Patient families will then know exactly what to expect when they go home and will know when they need to return based on doctor expectations.
Post-discharge status schedule will provide Mott with an improvement in the quality of patient care and improve communication with patient families.

**Real-Time Visual Displays**

This recommendation was developed because of many different conclusions. Since patient education, lack of a communication network, doctor/nurse awareness, and doctor/nurse patient outcome feedback are all issues of concern; Mott should improve their communication. Therefore, Mott Children’s Hospital should implement two visual systems (for doctors/nurses and another for patient families) that will constantly display patient status. The visual systems could be a whiteboard or TV.

For families, the display would show what the patient has accomplished today and what needs to be accomplished. The display will also show what the patient family needs to accomplish during their stay and real-time updates of what is currently occurring with their child. Real-time visual displays will provide Mott with a way to constantly keep the family updated and invested in patient care improving quality of patient care and satisfaction.

For doctors and nurses, the display would be an addition to the nurse’s board that indicates which patients have been readmitted. Real-time visual displays will provide Mott with an outcome feedback network and will result in all doctors and nurses receiving their information from the same place. The visual display will create a standardization of where doctors and nurses receive their information improving quality of patient care.

**References**


Appendix 1: Survey Distribution Procedure

Readmitted Patient Project: Procedure

Daily Report of Readmitted Patients from Jackie

Identification of Readmitted Patient’s Discharging Doctor/Nurse, Current Doctor/Nurse, and Primary Care Provider from Jackie and Laura

Doctor
  - Current
  - Past

Nurse
  - Current
  - Past

Families

Primary Care Provider

Responses

A. Send Qualtrics Survey via Email
   - If no, response within 24 hours
     - B. Send Email with a few questions
     - If no, response within 72 hours
       - C. Notify Jackie & Laura to send email

A. Send Email via Email
   - B. Ask Nurse to hand survey to family

A. Hand out survey to each patient room
   - A. Send Qualtrics Survey via Email
Appendix 2: Patient Survey

Please give completed survey to nurse or place in bin at front desk.

Did your primary care provider know the patient was in the hospital?

Yes ☐ No ☐

Was someone available to help you?

☐ Other ☐ Primary Care Provider ☐ Hospital ☐ Doctor ☐ Clinic

If yes, who did you talk to? (check all that apply)

Did you try to talk anyone before coming to the hospital?

Yes ☐ No ☐

Did you find the hospital easy to use?

Yes ☐ No ☐

Do you feel as if your child was treated back to the hospital?

Yes ☐ No ☐

What could have been done better the first time to prevent you from coming back to the hospital?

1. Why did the patient come back to the hospital again?
2. What could have been done better the first time to prevent you from coming back to the hospital again?
3. Did you feel as if your child was treated back to the hospital?

Research Project

College of Engineering Pediatrics Readmission Study

Emilie: dmwess@umich.edu

Industrial and Operations Engineering
Research Board, The University of Michigan, Ann Arbor, Michigan

Team:

and/or coordinator of our project:

Questions about the Research:

1. How did you find out about this study? You may contact the team or clinic.
2. What is your opinion about what readmission patients think? Most of all, what is essential to your opinion is essential to your experience in the hospital. Are there any recommendations for future readmission studies or changes to the hospital that you think would improve the patient experience?
3. How can we improve the patient’s experience in the hospital?

Research Project

College of Engineering Pediatrics Readmission Study
Appendix 3: Qualtrics Doctor and Nurse Survey

College of Engineering Pediatrics Readmission Study

Research Project
This study is conducted by Industrial and Operations Engineers studying readmissions at C. S. Mott Children’s Hospital. You are receiving this survey because you have treated or currently treated a recently readmitted patient.

Our project is to understand the root cause of why readmissions are occurring. The following survey will ask just a few, SHORT questions about that readmitted patient. Your opinion is essential to our study and is valued greatly.

Confidentiality
All data obtained from participants will be kept confidential and will only be reported in an aggregate format (by reporting only combined results and never reporting individual ones). All questionnaires will be concealed, and no one other than their primary investigators and researchers listed below will have access to them. The data collected will be stored in the HIPPA-compliant, Qualtrics-secure database until it has been deleted by the primary investigator.

Questions about the Research
If you have questions regarding this study, you may contact the team, our client and/or coordinator of our project:

Team:
Jessica Bryant, Tara Lynn O’Gara, Danny Fawaz
Industrial and Operations Engineering
Email: dmfawaz@umich.edu

Client:
Laura Cherven, RN
Nurse Manager, 11 West Unit
University of Michigan Mott Children’s Hospital
Email: lcherven@med.umich.edu

Coordinator:
Jackie Lapinski
Administrative Manager
University of Michigan Mott Children’s Hospital
Email: jlpkaart@med.umich.edu

Block 2
Did you know that this patient is categorized as a readmission patient?

- Yes
- No

How did you know they were readmitted?

- Previously treated patient
- From Patient
- From Nurse
- Other
Other- Please specify. (How did you know they were readmitted?)

Could this readmission been preventable?

- Yes
- No

What precautions could have been taken to prevent the readmission?

How often was the family present during patient care?

- Never
- Rarely
- Sometimes
- Most of the Time
- Always

How invested were the family members in learning about their child's medical care?

- One of the Worst
- Below Average
- Average
- Above Average
- One of the Best

Was the primary care physician notified?

- Yes
- No
Appendix 4: Primary Care Physician Email

Dear [Primary Care Physician Name],

I'm a student at the University of Michigan: College of Engineering working on readmissions study at C.S. Mott Children's Hospital. I am reaching out to you because you are the primary care physician of a patient that received care at University of Michigan’s Mott Children Hospital. The patient in which I am referring to is [MRN #]. I have a few questions below that I hope you could answer. Our project is to understand the root cause of why readmissions are occurring. Your opinion is essential to our study and is valued greatly.

1. Did you know that your patient received care from University of Michigan’s Children Hospital?
   a. If so, how did you find this out? (i.e. phone call, fax, etc.)

2. Your patient was recently readmitted to Mott Children Hospital. Did the patient contact you before returning to the hospital?

If you have any questions or concerns please contact either our project coordinator or client below:

Client:
Laura Cherven, RN
Nurse Manager, 11 West Unit
University of Michigan Mott Children's Hospital
Email: lcherven@med.umich.edu

Coordinator:
Jackie Lapinski
Administrative Manager
University of Michigan Mott Children's Hospital
Email: jpikaart@med.umich.edu

Best Regards,

Danny Fawaz, Jessica Bryant, & Tara Lynn O’Gara