Executive Summary

Within the University of Michigan Health System (UMHS), the clerical staff is responsible for all administrative work pertaining to patient care. According to the Senior Training Specialist in the Central Staffing Resource Department, the admission process varies significantly across units. Student teams from previous semesters have shown through workload and time studies that the admission process consumes approximately 20% of the daily clerical workload. Therefore the team was asked to analyze the admission process and recommend actions to be taken that will eventually lead to the standardization of the entire clerical role.

Background

Based on analysis by previous teams the admission process was identified as a key area to begin standardization efforts. The admitting process currently has a high degree of variability across units. According to the Senior Training Specialist 90% of the units in the hospital are performing the same functions but they are all doing them differently. The team analyzed 32 units to gain an overall understanding of the admission process, focusing on 18 general care units to develop recommendations to begin standardization of the admission process. The recommendations for developing standardization in the admission process will eventually be implemented into other clerical functions to improve the efficiency of all clerical functions.

Methodology

The team performed the following methods throughout the project:

- **Perform Literature Search and Collect Initial Data**
  The team performed literature research on previously completed studies of the clerical workload in UMHS to develop an understanding of the clerical function and the impact of the admission process on the workload. The team also developed initial interviews for clerks to obtain preliminary, first-person working knowledge of each individual unit and the workflow of the admission process.

- **Observe Admission Process**
  The team prepared for observations but due to time constraints were unable to conduct observations at all 32 units. Two observations were completed of the beginning of the admission process and the team was able to witness several variations between the units that factored into further data collection methods.

- **Interview Clerical Staff on Unit-Specific Variances**
  The team developed a second interview and conducted it at all 32 units to develop a step-by-step process for a single admission at each individual unit. These interviews highlighted variances between units and allowed the team to develop process flow charts to visually demonstrate the steps each unit is required to complete when admitting a patient.

- **Extract Historical Data from TSI Database**
  After determining full observations at all 32 units were infeasible due to time constraints
the team requested admission data from September 2009 to October 2009 be pulled from the UMHS TSI database.

- **Ladder Logs**
  The team used the information provided by each unit in follow up interviews to develop a list of main tasks required by each unit to admit a patient and distributed a ladder log study to 18 general care units. The purpose of the study was to provide the team with the timing for each key task and insight into the impact of patient arrival variability upon completion of the admission process.

- **Interviews with Central Staffing Resource Management**
  Staff members of the Central Staffing Resource Department were interviewed to obtain an understanding of the expectations of the clerks and the completion of the admission process form a managerial perspective.

- **Validation and Analysis of Data**
  The team validated the interviews and ladder log studies both with previous data and knowledge of the process as well as with members of the team. The sources of data collection provided the team with an in-depth understanding of the admission process.

**Findings and Conclusions**

The team identified the following findings and conclusions by analyzing the data from initial interviews, observations and follow-up interviews, process flow charts and the ladder log study

- **Initial Interview Results**
  The team was able to use the preliminary information provided by these interviews to analyze key aspects of the admission process and obtain basic knowledge of the general admission process. The major findings were that each unit performed the same general group of tasks, had similar definitions of the beginning and end of the admission process, and yet there are still several variances present. The team concluded that although each unit completes many of the same tasks, the variances occur due to the order of task completion.

- **Observations of Variability**
  The team conducted observations to see the variability first-hand and found through two in-depth observations that the time at which a unit begins the paperwork, interruptions, and other small variances that need to be looked into further are the cause of variability between units.

- **Follow-up Interviews**
  The key variances found from these interviews were the time the unit begins and labels the paperwork, how they handle multiple admissions, where and by whom the flowboards and name labels are placed when they are ready for a patient, how many blue binders the unit has available, and if the clerk had seen the training manual portraying standard work.

- **Process Flow Charts and Ladder Logs**
  Process flow charts were completed based on the follow-up interview data to compare across all 32 units. The team found that most units are performing a similar process but in a different order. The ladder logs were used to expose the order each unit follows to complete the admission, track the duration of each task, the number of interruptions, and the overall amount of time spent on the admission process. Ladder logs were completed
in 16 of the 18 general care focus units, the wide range of time between patient notification and patient arrival is causing a significant amount of variability in the admission process.

- **Interviews with Central Staffing Resource Management**
  The team interviewed three management staff from the Central Staffing Resource Department to obtain a managerial perspective on the admission process and the expectations of the clerks in completing an admission. The team concluded the training manual describing standard work is not reviewed by the clerks on a regular basis.

**Recommendations**

Based on the conclusions of the study, the team has made the following recommendations:

- **Eliminating Discovered Variances**
  The team discovered several inconsistencies between units in the follow-up interviews that could be improved upon to eliminate the variance between units. Standardization of when the unit begins the paperwork would minimize the occurrence of a unit being unprepared for an admission and would eliminate any confusion of the responsibility of flowboard and name label placement. Also, in creating a standard expectation for handling multiple admissions, interruptions from concurrent admissions would be minimized and the process would be more efficient. Finally, standardization in combination with inventory supply chain logistics would provide solutions to the occurrence of an inadequate supply of blue binders at any given unit.

- **Continuing Future Studies**
  Finally, the team would like to recommend a continuation study to ensure the discovered variances are further analyzed and solutions are determined. The team suggests that another team perform in-depth observations on four general care units. The future team should focus on doctor, nurse, and clerk preferences and communication obstacles to determine how these aspects affect the completion of the admission process.

- **Instituting MLearning Compliance Testing and Incentives**
  Results of the follow-up interviews have shown that many clerks are not familiar with the most up-to-date training manual even though this information is sent to the clerks weekly. The team recommends that first, the Central Staffing Resource Department implements a MLearning module to ensure all clerks have read and understand any changes to their job function. In addition to the MLearning the team proposes a “Clerk of the Year” award, given to the clerk who obtains the best score on their MLearning test and had the best feedback from CSR staff and other employees.

- **Implementing Bluetooth Headset**
  Through interviews, observations, and ladder log data collection, phone calls have been determined to be the most common interruption. The team proposes the consideration of implementing Bluetooth headsets for clerical use based on financial feasibility.

- **Summarizing Recommendations**
  This project provided a foundation and ongoing support for identifying variances and receiving clerical, first-hand knowledge as well as managerial expectations of the process. The information and recommendations detailed in this report would produce a larger impact if future teams focus on the documented interruptions and variances of the
process and further analyzed them to develop a precise recommendation of the methods to use to achieve the outlined standardization benefits.

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1.0 Introduction

Within the University of Michigan Health System, the clerical staff is responsible for all administrative work pertaining to patient care. The Health System consists of approximately 40 units within Mott Children’s Hospital, University Hospital and the Cardiovascular Center. A unit is categorized as either surgical, medical, or intensive care (ICU); the surgical units care for patients before and after surgery, medical units perform general care, and ICU units perform demanding care for patients requiring specialized attention. According to the Senior Training Specialist in the Central Staffing Resource Department, the admission process varies significantly across units due to unit-specific forms, patient arrival times, and interruptions. Student teams from previous semesters have shown through workload and time studies the admission process consumes approximately 20% of the daily clerical workload. Thus, the Senior Training Specialist asked the team to analyze the admission process. The team analyzed 32 of the approximately 40 units to gain an overall understanding of the admission process and focused on 18 general care units to develop a recommendation to begin standardization of the admission process. The recommendations provide a foundation for standardization of the admission process which will eventually lead to standardization of all clerical tasks. This report presents the background, key issues, goals and objectives, project scope, project methodologies, findings, conclusions and recommendations, as well as the supporting documents.

2.0 Background

The Senior Training Specialist has been working closely with student teams to study the clerical workload for several semesters. Based on analysis by previous teams the admission process was identified as a key area to begin standardization efforts. Therefore, in continuation, the existing team analyzed the admission process to begin standardizing the admission process within the clerical function. In addition to assisting in this ongoing standardization process, the team’s findings and recommendations provide a foundation to standardize the entire clerical workload.

According to the Senior Training Specialist, the process of admitting a patient to a unit is the most time consuming part of a clerk’s daily duties, consuming approximately 20% of the daily workload. The admitting process currently has a high degree of variability between units created by inconsistencies in paperwork, communication between units, communication with the admissions department, doctor and nurse processes, and patient and visitor needs. These inconsistencies often lead to interruptions causing numerous problems for the clerks, lengthening and delaying the admission process. A typical admission process, as reported by the clerks, requires approximately 10 minutes start to finish without any interruptions. The time required is drastically lengthened when the clerks are interrupted causing them to abandon their current task and return to it later.

According to the team’s preliminary observations and the information from the Senior Training Specialist, the current process is not standardized, 90% of the units in the health system are completing the same admission process but they are all doing it differently. The variability between units complicates resource-sharing, which hinders the performance of the clerks when filling in at different units. Also, variability exists regarding the transfer and/or scrapping of forms across units. When a patient is reassigned to another unit, completed forms are sent in the tube system to the other unit or the forms are scrapped. When a patient is discharged instead of
transferred to a unit, any completed forms are scrapped. This project began the standardization of the admission process which will eventually be implemented to simplify and improve the efficiency of the admission process and the entire clerical role.

2.1 Key Issues

The following key issues were addressed in this project.

- The admission process is not standardized across the hospital system
- Interruptions clerks face are numerous and random and lengthen or delay the admission process
- Forms are often wasted during the admission process

2.2 Goals and Objectives

To develop and implement a standardized admission process throughout the University of Michigan Health System, the student team achieved the following tasks:

- Observing the tasks required in the admissions process
- Identifying variability between units in the admissions process

With this information, the team developed recommendations to:

- Eliminate variability in the admission process between units
- Establish a foundation for standardization of the patient admission process

2.3 Project Scope

This project focused on the patient admission process for 32 units within Mott Children’s Hospital, University Hospital, and the Cardiovascular Center as seen in Appendix A. The team focused on 18 general care units within University Hospital and Mott Children’s Hospital with the intention of understanding the admission process at similar units to provide a framework for recommendations and further studies. For the purposes of this project, the beginning of the admission process was identified as notification of a patient arrival and to ends when the clerk completes patient paperwork.

Any task not directly involved in the patient admission process was not included in the scope of this project. Specifically, the team did not study tasks related to nurses or doctors. While these tasks were not specifically studied, the team did use findings related to other members of the hospital to identify root causes of the admission variability. Also, the team did not study units in the Women’s Hospital, Psychiatric Units, or Holden.

3. Project Methodology

This section details the methodology used throughout the project: data collection, validation and analysis.

3.1 Data Collection

The team spent 12 weeks, from January 11, 2010 to April 2, 2010 collecting data on the project. The collection of data can be divided into the following sections:
• Perform Literature Search and Collect Initial Data
• Observe Admission Process
• Interview Clerical Staff on Unit-Specific Variances
• Create Unit-Specific Process Flow Charts
• Extract Historical Data from TSI Database
• Perform Ladder Log Study

3.1.1 Perform Literature Search and Collect Initial Data

The team performed literature research, developed initial interviews for the clerks, and conducted the interviews to determine tasks performed and obtain knowledge of the workflow in the admission process. The interview questions are stated in Appendix B.

3.1.2 Observe Admission Process

The team developed a data collection sheet to allow each member to collect the step-by-step process required for a patient admission. This data collection sheet can be seen in Appendix C. The team began two observations and due to time constraints were unable to see an entire admission beginning to end. However, the team witnessed several variations between the units that factored into further data collection methods and the way the team addressed the project.

3.1.3 Interview Clerical Staff on Unit-Specific Variances

The team interviewed all 32 clerks and requested they describe the process followed when admitting a patient to their unit. These descriptions allowed the team to create process flow charts for each unit. The additional interviews also gave the team further insight into known variances between units.

3.1.4 Create Unit-Specific Process Flow Charts

From the observations and follow-up interviews the team created process flow charts for each of the 32 units. These flow charts detail the step-by-step process of completing an admission in each individual unit.

3.1.5 Extract Historical Data from TSI Database

After being unable to feasibly observe admissions at all 32 units, the team requested that data be pulled from the University of Michigan Hospital TSI database. The team received approximately 10,000 data points for admissions between September 2009 and October 2009 to analyze. This data included but was not exclusive to admit time, service, unit and source.

3.1.6 Perform Ladder Log Study

The team distributed ladder logs to 18 general care units in University Hospital and Mott Children’s Hospital. All units received the ladder logs on the same day complete with verbal and written instruction, a sample completed ladder log and a ladder log to fill out, these documents can all be seen in Appendices D, E, and F respectively. The purpose of this study was explained insofar as possible and any questions were addressed. The team proceeded to check in with each unit every day for two weeks or until the ladder log was completed. If for some reason the
ladder log was missing, not completed properly, etc., the unit was given new documents, the study was described again and the process continued until the unit completed the ladder log. At the end of the study 16 of the 18 units had successfully completed the ladder logs, which the team felt was an adequate sample size and proceeded to analyze the collected information.

3.1.7 Interviews with Central Staffing Resource Management

Three staff members were interviewed to obtain an understanding of the expectations of the clerks and the completion of the admission process from a management perspective. The team also used these interviews to further understand and evaluate the training process required for new clerks. In addition, these interviews provided the team with information on the requirements and expectations pertaining to the current clerical annual competency testing.

3.2 Data Validation

The team completed the following to ensure quality and accurateness of the collected data.

3.2.1 Interviews and Observations

To ensure quality and accurateness of the interview responses the clerks were interviewed in the environment they completed the tasks in (clerical section of each unit) so the team was able to verify the location, placement and assembly of several known variances (i.e. location of label printers, placement of labels on forms, assembly of admission packet, etc.). Observations also allowed the team to verify responses from follow-up interviews and see several of the described tasks required for an admission (mainly the beginning of an admission since seeing an entire admission beginning to end was infeasible due to time constraints).

3.2.2 Ladder Log and Process Flow Charts

The team used the data collected from the ladder logs and the process charts to verify that all required tasks were being completed by each unit. These two sources of data allowed the team to not only verify the completion of each task but also recognize that the tasks are not necessarily completed in the same order each time. The order followed to complete an admission was not the same between units, nor was it completed in the exact same order each time within an individual unit.

3.3 Data Analysis

The team analyzed all sources of data to develop findings and conclusions.

3.3.1 Ladder Logs

The ladder logs were filled out by clerks at 16 of the 18 focus general care units to collect data on the sequence of tasks required for an admission as well as the times required for each task. The completed ladder logs also provided information on the time a unit spent waiting for a patient to arrive (i.e. the time between notification of patient arrival and time of arrival).
3.3.2 Matrix Summary of Findings

The matrix created during the project represents all collected qualitative information, compiled from initial and follow-up interviews as well as observations from visiting the units and information from the ladder log study. The matrix highlights several previously known as well as some unknown variances between units and identifies the aspects of the process that this project analyzed. The excel document is set up with all units listed in the first row of the document and the questions asked in both the preliminary and follow-up interviews listed in the first column with the respective responses located in the intersecting cell. A subset of the matrix is shown in Appendix G. This information, in addition to the current known unit variances matrix allows for further understanding of the root causes of unit-specific variability.

3.3.3 Interviews with Central Staffing Resource Management

The team interviewed three Central Staffing Resource Management employees to obtain management expectations of the clerical role. The questions asked appear in Appendix H. The interviews evaluated the admission process from a management perspective as well as provided insight and information unattainable from previously described methods of data collection.

4.0 Findings and Conclusions

Based on initial interviews, observations, follow-up interviews, process flow charts, the ladder log study and interviews with Central Staffing Resource management, the following provides a detailed breakdown of the findings and conclusions obtained during the team’s analysis.

4.1 Initial Interview Results: Overview of process and variances

To obtain preliminary information about each unit the team conducted interviews. The interviews with the clerks led to the following key results shown in Table 1.

<table>
<thead>
<tr>
<th>Key Result</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of clerks in each unit</td>
<td>Most commonly one clerk per unit</td>
</tr>
<tr>
<td>Work hours of each clerk</td>
<td>Most commonly 8½ hour shift with 30 minute lunch break per clerk</td>
</tr>
<tr>
<td>General admission process of the 32 units</td>
<td>Notification of patient arrival, print labels and profile sheet, label forms and place in proper location, upon patient arrival update census, transfer patient in mainframe and place admission orders</td>
</tr>
<tr>
<td>Key tasks performed throughout all units</td>
<td>Prepare patient forms, place admission orders</td>
</tr>
<tr>
<td>Specific tasks performed by each clerk in the 32 units</td>
<td>Cause of variation among units</td>
</tr>
<tr>
<td>Start and stop boundaries to the admission process</td>
<td>Beginning: notification of patient arrival Ending: update census, transfer patient into mainframe, place diet and equipment orders</td>
</tr>
</tbody>
</table>
Basic knowledge and key aspects of the general admission process were obtained. The clerks provided the team with the basic tasks involved. Each unit performed a general group of tasks, similarly defined the beginning and end of the admission process and there were still variances due to unit specific tasks essential to the admission process. Using this information the team concluded that although each unit completes many of the same tasks, the variance occurs due to the order the tasks are performed in.

4.2 Observations: Variability of process completion

The team conducted observations in the hopes of seeing the variability first hand. The variability was proven and it was found all units function differently when the team experienced difficulty observing. Although each unit similarly classifies the start and end of the admission process, each unit actually begins at a different time. Some units, such as 6M, begin their admission process at night for their scheduled admits, in which case, all paperwork is completed by the night clerk. Other units, such as 8B, begin the paperwork immediately upon notification of a scheduled patient from the charge nurse. There are also units that wait for confirmation of patient arrival before beginning the paperwork, such as 8C.

Through the in depth observation of two units, other variances were found that needed to be looked into further. Since project scope encompassed studying 32 units, the follow-up interviews addressed the found variances.

Finally, from observations, the team found that interruptions play a key role in lengthening the total admission process. Common interruptions included phone calls, nurses, doctors, visitors, social workers, and other disciplines across the hospital. These interruptions led the team to conclude that the admission process is lengthened but interruptions

4.3 Follow-up Interviews: Variation occurs throughout the process

The team interviewed the clerks from 32 units in Mott Children’s Hospital, University Hospital and the Cardiovascular Center. Table 2 is a select compilation of the most common variances that have been analyzed.

<table>
<thead>
<tr>
<th>Question/Response</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>When do you begin the paperwork?</td>
<td></td>
</tr>
<tr>
<td>Upon notification of patient arrival</td>
<td>18 out of 29 units</td>
</tr>
<tr>
<td>Midnight shift</td>
<td>2 out of 29 units</td>
</tr>
<tr>
<td>When patient is slotted to a bed</td>
<td>2 out of 29 units</td>
</tr>
<tr>
<td>When booking sheet arrives</td>
<td>3 out of 29 units</td>
</tr>
<tr>
<td>When notified by charge nurse</td>
<td>3 out of 29 units</td>
</tr>
<tr>
<td>All admits for week done at once</td>
<td>1 out of 29 units</td>
</tr>
</tbody>
</table>
Table 2: Follow-up Interview Responses from Hospital Units (continued)
(*Data source: Follow-up Interviews, IOE 481 Team 11, Jan. – Apr. 2010, N = 32)

<table>
<thead>
<tr>
<th>Question/Response</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>How do you handle multiple admissions?</td>
<td></td>
</tr>
<tr>
<td>One-by-one</td>
<td>16 out of 27 units</td>
</tr>
<tr>
<td>Simultaneously</td>
<td>6 out of 27 units</td>
</tr>
<tr>
<td>Based on priority</td>
<td>1 out of 27 units</td>
</tr>
<tr>
<td>Simultaneously and one-by-one (depends)</td>
<td>1 out of 27 units</td>
</tr>
<tr>
<td>N/A</td>
<td>3 out of 27 units</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question/Response</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>When do you label the forms?</td>
<td></td>
</tr>
<tr>
<td>Upon confirmation of patient arrival</td>
<td>9 out of 29 units</td>
</tr>
<tr>
<td>Upon notification of patient arrival</td>
<td>8 out of 29 units</td>
</tr>
<tr>
<td>A day before the patient arrives or done by night clerk</td>
<td>2 out of 29 units</td>
</tr>
<tr>
<td>As soon as the patient arrives</td>
<td>5 out of 29 units</td>
</tr>
<tr>
<td>Anytime before patient arrival</td>
<td>5 out of 29 units</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question/Response</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where do you place the flowboards when they are finished?</td>
<td></td>
</tr>
<tr>
<td>At the patient room</td>
<td>17 out of 28 units</td>
</tr>
<tr>
<td>By the clerk desk – wait for pick-up</td>
<td>9 out of 28 units</td>
</tr>
<tr>
<td>In conference room</td>
<td>1 out of 28 units</td>
</tr>
<tr>
<td>No flow boards</td>
<td>1 out of 28 units</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question/Response</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many blue binders do you have?</td>
<td></td>
</tr>
<tr>
<td>Enough for all of the units</td>
<td>15 out of 27 units</td>
</tr>
<tr>
<td>Occasionally do not have enough</td>
<td>12 out of 27 units</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question/Response</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>How was the training manual portrayed to you?</td>
<td></td>
</tr>
<tr>
<td>Never seen it</td>
<td>17 out of 21 units</td>
</tr>
<tr>
<td>Seen it</td>
<td>4 out of 21 units</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question/Response</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the clerk place the name labels where they need to be?</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>21 out of 26 units</td>
</tr>
<tr>
<td>No</td>
<td>5 out of 26 units</td>
</tr>
</tbody>
</table>

- **When the unit begins paperwork**
  The point at which each unit begins the admission paperwork is a known variance among units. This can create difficulties in the transfer of patient forms; for example, if a patient was expected to arrive at a unit that does not begin admission paperwork until receiving notification that the patient is on their way, but instead that patient is transferred at the last minute to a second unit that prepares the paperwork as soon as a patient is scheduled to that unit, the second unit would be expecting completed admission forms from the first
unit and would instead have to hurry to complete the admission forms in time for the patient arrival.

- **How a unit handles multiple admissions**
The interviews also indicate that units vary on how multiple admissions are handled. Multiple admissions effectively act as interruptions to one another, to lengthen and delay the admission process.

- **When patient forms are labeled**
As shown in Table 2 above, the task that varies the most between units is the point in the process where the clerks label the forms with the patient information. The distribution of units is relatively uniform across all five responses. To eliminate admission form waste, if a patient is transferred from a unit after the paperwork has been completed, the paperwork is sent to the new unit in a hospital-wide tubing system. Varying the point at which the paperwork is labeled complicates the process of transferring the forms (i.e. both units will have completed a set of forms and one set will be wasted, neither unit has completed the forms and the new unit must rush to complete the forms before the patient actually arrives).

- **Where and by whom the flowboards are placed**
Another observed variance between units is the placement of the flowboards, or more precisely who places the flowboards at the patient room. A majority of the clerks place the flowboards at the room while others place them in front of the clerical desk to be picked up by a technician or unit host. These differences are not as dramatic and are easily adaptable to new or substitute clerks. The differences that may cause a problem in the workflow are those units who either place the flowboards in a conference room or do not use flowboards. This could complicate resource-sharing among the units by increasing the occurrence of interruptions effectively delaying the admission process.

- **How many blue binders are available**
The blue binders hold all patient health information, as seen in Table 2 above, approximately 50% of the interviewed units do not have enough blue binders to complete new admissions. The lack of blue binders may result in a clerk waiting until another patient is discharged to transfer the papers which could lead to papers getting lost or confused in the transition, or the clerk must go out to other floors to find another blue binder which takes time away from completing other clerical tasks.

- **How many units have seen the training manual**
The clerks were also questioned about the current training manual which outlines standard work for the clerical function. Most of the clerks indicated that they had never seen the training manual. When the team brought this to the attention of the Senior Training Specialist it was concluded that most of the clerks were not checking their weekly updates or logging into the resources provided by the Central Staffing Resource Department.

- **Where and by whom the name labels are placed**
Finally, each unit varies on whether the clerk is responsible for placing name labels at the room, in the medicine room, etc. For example, on 6M the unit host places the name label at the room, in contrast on 8B the clerk places the labels at the room.

### 4.4 Process Flow Charts and Ladder Logs
Process flow charts were completed based on the follow-up interview data and can be found in Appendix I. Using the flow charts for each unit, the team was able to compare across all 32 units. It was found that most units are performing a similar process but in a different order. The process being performed includes the following tasks:

- Slot the patient
- Print face sheet and immunization form
- Print labels
- Label forms
- Make bedside chart
- Make blue binder
- Page doctors and nurses
- Enter patient into mainframe and place orders
- Write patient on census

The ladder logs were used to expose the order each unit follows to complete the admission process, to track the duration of each task, the number of interruptions, and the overall amount of time spent on the admission process. The ladder logs were completed for 16 units and were based on the following general tasks.

- Print labels, face sheet, and immunization sheet
- Create tag packet
- Place tags in correct places
- Label forms
- Place forms in blue backer and bedside board
- Enter patient into main frame and place any orders needed

Using the ladder logs, the team found that on average the paperwork took 13 – 33 minute, the average time between the first patient notification and arrival ranged from 28 minutes to 5 hours 48 minutes, and the average time between the “15-minute” patient notification and arrival ranged from 6 to 29 minutes. The data corresponding to each individual unit can be seen in the bar graph below.

**Figure 1: Ladder Log Data**

(*Data source: Ladder Log Study, IOE 481 Team 11, Jan. – Apr. 2010, N = 16)
The wide range of time between patient notification and patient arrival is causing a significant amount of variability. The units with shorter wait times have scheduled admits and units with longer wait times have patients coming from the ER or OR. The causes for extended wait times need to be looked into further and communication within the hospital should be observed.

In addition, the ladder log study confirmed the number of interruptions significantly impacts the length of the admission process. The number of recorded interruptions ranged on average from 0 to 26 interruptions per admission; the more the clerk is interrupted the longer the process takes. There is also a direct correlation between the number of interruptions, type of interruption, and its impact on the task at hand. For example, if the clerk is labeling forms well before the patient is scheduled to arrive, the interruption will lengthen but not impact the process. On the other hand, if the clerk is labeling forms at a time closer to patient arrival, phone calls, doctors, nurses and visitors may prevent the clerk from completing the process prior to patient arrival.

4.5 Interviews with Central Staffing Resource Management

The team interviewed three management staff from the Central Staffing Resource to obtain a managerial perspective on the admission process and the expectations of the clerks in completing an admission. The training process and methods of updating and monitoring were also discussed in these interviews to develop recommendations for possibly altering the current annual competency testing or creating an entirely new MLearning module to ensure that the clerks are updated on the most current standard work expectations. By enabling this additional line of communication between management and clerical staff a standard process will be more effective and successful because all employees will have the same expectations and understanding of the admission process.

4.6 Summary of Conclusions

Overall, there were several conclusions from data collection, data analysis and findings.

- Initial Interviews – general process across all units performed differently at each unit
- Observations – preferences of other unit employees and interruptions affect the process
- Follow-up interviews – key variances between units
• Process flow charts and ladder logs – communication and wait time for patient arrival are key contributors to extending the admission process
• CSR interviews – managerial perspective, expectations on admission process and training manual information

5.0 Recommendations

Based on the conclusions of the study, the team has made the following recommendations to accomplish the primary project goals of eliminating variability in the admission process between units and establishing a foundation for standardization of the patient admission process.

5.1 Eliminating Discovered Variances

The team discovered several inconsistencies between units in the follow-up interviews that could be improved upon to eliminate the variance between units. Table 3 presents the variances and benefits of standardization, however the methods of standardization need to be further researched.

Table 3: The Effects of Standardization on Discovered Variances

(*Data source: Follow-up Interviews, IOE 481 Team 11, Jan. – Apr. 2010, N = 32)

<table>
<thead>
<tr>
<th>Variance</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>When the unit begins the admission paperwork</td>
<td>Standardization would allow for full disclosure and understanding between units to effectively minimize the occurrence of a unit being unprepared for an admission or in other cases would minimize admission form waste.</td>
</tr>
<tr>
<td>How multiple admissions are handled</td>
<td>In creating a standard expectation for handling multiple admissions, interruptions from concurrent admissions would be minimized and thus the admission process would proceed more efficiently. Completing admissions one-by-one rather than simultaneously will reduce error and increase efficiency.</td>
</tr>
<tr>
<td>When the forms are labeled</td>
<td>Standardization will minimize admission form waste and improve transference of forms between units, if every unit labels the forms at the same point in any given admission it will be easier to track any necessary paperwork and transfer it to the correct unit.</td>
</tr>
<tr>
<td>Where flowboards are placed when they are finished</td>
<td>Standardization would eliminate any confusion for a new or substitute clerk to any unit if each unit placed the flowboards in the exact same location.</td>
</tr>
<tr>
<td>Number of blue binders available</td>
<td>Standardization in combination with inventory supply chain logistics would provide solutions to this problem and alleviate any delay in the process due to the occurrence of an insufficient supply of blue binders.</td>
</tr>
<tr>
<td>Name label placement</td>
<td>Standardization of this task will eliminate any discrepancies of the responsibility of this task between clerks and any other unit employees.</td>
</tr>
</tbody>
</table>
5.2 Continuing Future Studies

The team would like to recommend a continuation study. The team suggests that another IOE 481 group continues the project using the conclusions from this report as a foundation. For the future study the scope should be narrowed to four units to allow for in-depth observations. The recommended units are 8B, 8C, 5E, and 6M because they each have different variances and are all general care units. The future team should focus on the following aspects of the process.

- Doctors/ Nurses Preferences
- Clerk Preferences
- Communication Obstacles

By focusing on these specific variables the impact of the following variances could be decreased:

- Placement of flowboards
- Placement of name labels
- Beginning of admission paperwork
- When the labels are placed on the forms

The team recommends that the future study focus on observing different clerks on the four different units in their project scope. In addition, the different doctors and nurses should be incorporated into the study in order to understand their preferences and the effect they have on the process. Lastly, the future study should incorporate all lines of communication. The team recommends that there be an in depth study of the time between the 15 minute warning and the actual arrival of the patient. If this time can be shortened and/or more accurate the clerk can gage the timing of the process better.

5.3 MLearning Compliance Testing and Incentives

The results of the follow-up interviews showed that many clerks have not seen the most up to date training manual. All clerks have seen a training manual at their formal training however that could have been several years ago (pre CareLink). According to the Senior Training Specialist, a weekly update is sent out and the manual is available to all clerks on the clerical website. Even with the consistent emails and the resources on the website, clerks still do not look at the information to update themselves.

Therefore, the team recommends two solutions to this problem. First, the team recommends using the MLearning system to ensure the clerks have read and understand any changes to their job function. The team recommends creating a new MLearning lesson every 3 months to ensure the clerks remain consistently updated on the admission process. Just as all other MLearnings, this exam will be pass/fail. If the clerk fails 2 times then that clerk will be required to meet with a member of CSR to discuss the results of the exam. The continual learning will completely eliminate any discrepancies that exist across units regarding the training manual.

The second recommendation is to identify a “Clerk of the Year.” The clerk of the year award would be given to the clerk who obtained the best score on their MLearning and had the best feedback from CSR staff and other unit employees. Therefore, the pool of candidates will be determined quantitatively but the recipient will be determined qualitatively. The award recipient
will receive a monetary reward which can be anything from a salary bonus to a gift card, based on financial feasibility and budget constraints. The team feels the award and corresponding monetary incentive will motivate the clerks to work hard and do their job properly.

5.4 Implementing Bluetooth Headset

Cumulatively, from interviews, observations and ladder log data collection, interruptions have shown to be the most common cause of delay in an admission. Furthermore, from observations, the team witnessed that phone calls tend to be the most common interruption a clerk deals with on a daily basis. Therefore, the clerks should use Bluetooth headsets, allowing the clerk to answer the phone without having to completely disregard their current task; ideally minimizing the impact of interruptions on the admission process. Financial constraints, of course, must be considered in determining the feasibility of this recommendation.

5.5 Summarizing Recommendations

This project provided a foundation and ongoing support for identifying variances and receiving clerical, first-hand knowledge as well as managerial expectations of the process. The information and recommendations detailed in this report would produce a larger impact if future teams focus on the documented interruptions and variances of the process and further analyzed them to develop a precise recommendation of the methods to use to achieve the outlined standardization benefits.
References


Appendix A: Units

University Hospital
4A – General Care*
4B – General Care*
4C – General Care*
4D – Neuro ICU
5A – General Care*
5B – General Care*
5C – General Care*
5D – SICU Surgical ICU
6A – Adult Rehab
6B – General Care*
6C – General Care*
6D – Critical Care Medical ICU
7A – General Care*
7B – General Care*
7C – General Care*
7D – Cardiac ICU
8A – General Care*
8B – General Care*
8C – General Care*
8D – Moderate Care

Cardiovascular Center
CVC ICU
CVC 5
OBS
AMOU
Trauma Burn ICU

Mott Children’s Hospital
5E – Peds Cardiac General and
Moderate Care*
5W – General Care*
PCTU Peds Cardio Thoracic ICU
Peds ICU Pod B
Peds ICU Pod C
6M – General Care*
7M – General Care*

*indicates unit in 18 unit focus group
Appendix B: Interview Questionnaire

1. What is involved in the admissions process?
   a. Forms
   b. Steps required to complete admission
   c. How long does it typically taken to complete one admission
   d. Are there parts of the admission process that don’t involve data entry/files/etc.
      (i.e. parts of the process done automatically in your head)

2. When are you busiest (when do you get most of your admissions)?

3. What defines the “beginning” of the admission process?

4. What defines the “end” of the admission process?

5. What are common interruptions in the admission process (causes)?

6. How do you resolve any problems/interruptions?

7. Are there ever occurrences when an admission process begins in your unit but for some reason does not end in your unit (examples)?
   a. If so what do you do in the event of these occurrences

8. How long is your shift?

9. Do you work solo or is there another clerk working with you?

10. If you could change one thing about the process what would you change?
**Appendix C: Data Collection Form**

Unit:  
Clerk Name:  
Date:  
Time Start:  
Time End:  

**Admission Process:**

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
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<tr>
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<td></td>
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<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>
Appendix D: Ladder Log Instructions

**Purpose:** To record when and how long the admission tasks are performed and when they occur simultaneously for a patient. Collecting three admissions will be sufficient; on the sheet you will see three major columns marked A1, A2, A3 (for patient admissions 1, 2, and 3). The data collection sheet ranges from 8am to 8pm to record a full admission.

**Task Codes:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>N1</td>
<td>Notification 1: Notified of patient scheduled to arrive</td>
</tr>
<tr>
<td>N2</td>
<td>Notification 2: Notified that patient is on their way to the unit</td>
</tr>
<tr>
<td>T1</td>
<td>Task 1: Print patient labels, face and immunization sheets</td>
</tr>
<tr>
<td>T2</td>
<td>Task 2: Write out patient tags</td>
</tr>
<tr>
<td>T3</td>
<td>Task 3: Place tags in correct locations</td>
</tr>
<tr>
<td>T4</td>
<td>Task 4: Label forms</td>
</tr>
<tr>
<td>T5</td>
<td>Task 5: Place forms in blue chart and on flow board</td>
</tr>
<tr>
<td>T6</td>
<td>Task 6: Enter patient information into mainframe and place necessary orders</td>
</tr>
<tr>
<td>X</td>
<td>Task X: Mark an X within a task breakout when it’s a minute or less interruption occurring</td>
</tr>
</tbody>
</table>

**Start collecting data when you begin one of the listed tasks above:**

1. At the start of a task for a patient, please mark a horizontal line in the appropriate column and time
2. Below the line, write N1, N2, T1, T2, T3, T4, T5, or T6 to indicate the task being performed
3. At the end of a task for a patient, please mark a horizontal line in the appropriate column
   - If a short interruption takes place (less than one minute) mark it with an X at the time it takes place, otherwise mark the task as ended and mark a new start time when the task is resumed
   - The times are provided in two-minute increments, please be as precise as possible
   - Please mark the date of the patient admission at the top of the column
   - 3 admission columns provided to collect task information for 3 separate admissions
   - If work needs to be done for a second admission before the first is complete, begin recording the second admission in the next column
   - Once all tasks are recorded for an admission, that column is complete
   - Please write any additional comments on the back of this paper and thank you for your help!
Appendix E: Sample Ladder Log
Appendix F: Ladder Log
<table>
<thead>
<tr>
<th>Time</th>
<th>A1</th>
<th>A2</th>
<th>A3</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00</td>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>2</td>
<td>4</td>
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<td>4</td>
</tr>
<tr>
<td>8:10</td>
<td>6</td>
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<td>10</td>
</tr>
<tr>
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<td>12</td>
<td>14</td>
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</tr>
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<td>8:30</td>
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</tr>
<tr>
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<tr>
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</tr>
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<td>68</td>
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</tr>
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<td>320</td>
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<tr>
<td>1:50</td>
<td>326</td>
<td>328</td>
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</tr>
<tr>
<td>2:00</td>
<td>336</td>
<td>338</td>
<td>340</td>
</tr>
</tbody>
</table>
## Appendix G: Subset of Matrix

<table>
<thead>
<tr>
<th>Forms involved in the admission process:</th>
<th>6B General Care</th>
<th>8A General Care</th>
<th>8B General Care</th>
<th>MC</th>
<th>6M General Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard forms</td>
<td>Nothing. All computerized</td>
<td>Nurse notes to MD, 8B admit checklist, flu sheet, family and friends list, RRT form, standard packet</td>
<td>Have a set of standard forms on a shelf not in packets. Flow sheet, nursing flow sheet, nursing prob list, health path assessment, bedside chart</td>
<td>Have a basic admission packet</td>
<td>Get preadmit packet sheet at midnight and night clerks get the packets ready for the daytime or get the booking and wait for the charge nurse to assign a bed. When the patient arrives, page the doctor, nurse, charge nurse and then put patient in mainframe</td>
</tr>
</tbody>
</table>

| Steps required to complete an admission: | Notified by admission office or charge nurse that patients are arriving, write census, put tags on locator board, print stickers, set up the blue chart, order equipment, wait patients to arrive, page doctor or nurse, put information in mainframe | Don't do anything until doctor puts admission in the system, then put patient in mainframe | Get booking, locator board tags, face sheet and labels, put on census, work sheet, label a chart, put main chart in blue binder, bedtime board, put bedside board out if bed is available | Receive booking sheet, get notification from charge nurse, or receive call from admission to know the patient will be admitted to your unit. Print labels, stamp flow chart once notified by the charge nurse. | Get preadmit packet sheet at midnight and night clerks get the packets ready for the daytime or get the booking and wait for the charge nurse to assign a bed. When the patient arrives, page the doctor, nurse, charge nurse and then put patient in mainframe |

| How long does it typically take to complete one admission? | 10 min | Few computer clicks | Perfect scenario less than 10 min | 15-20 minutes | 5-10 minutes |

| When are you busiest? | 3.30 pm - 12 am | scattered | 3-4 pm | between 1 and 3pm | between 11:30 and 8pm |

| What defines the "beginning" of the admission process? | Booking sheet arrives | Patient at window, not told they are coming | Booking info, complete based on bed availability | Receive booking or notification from charge nurse | Receive booking or notification from charge nurse |

<p>| What defines the &quot;end&quot; of the admission process? | Orders placed | When patient is in the room unless there is an order | Doctors notified and patient specific orders are put into the computer, patient put into Care-Link | Call doctors and page nurses, put admitting diagnosis in carelink and put in census | Enter patient in mainframe and call doctors and nurse |</p>
<table>
<thead>
<tr>
<th></th>
<th>6B General Care</th>
<th>8A General Care</th>
<th>8B General Care</th>
<th>5E Peds Cardiac General Care &amp; MC</th>
<th>6M General Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are common interruptions in the admission process (causes)?</td>
<td>phone calls, process orders, nurse, family, doctors</td>
<td>phones, nurses, people coming to the window</td>
<td>phones, nurses, people coming to the window</td>
<td>phones, nurses, people coming to the window</td>
<td>phone calls and nurse interruption</td>
</tr>
<tr>
<td>Are there ever occurrences when an admission process begins in your unit but for some reason does not end in your unit?</td>
<td>Yes</td>
<td>Don't do anything, admitting calls and says they are not getting a patient</td>
<td>Some put in computer (email) to other units, transfer paperwork</td>
<td>Yes, tube papers to other floor if they were going to another floor, if the patient came here from another floor and the forms were not sent with them the clerk will call down to the previous unit</td>
<td>Yes, try to tube paperwork to other units</td>
</tr>
<tr>
<td>How long is your shift?</td>
<td>8 hours</td>
<td>8 hours</td>
<td>8 hours</td>
<td>8 hours</td>
<td>8 hours</td>
</tr>
<tr>
<td>Do you work solo or is there another clerk working with you?</td>
<td>1 clerk</td>
<td>1 clerk</td>
<td>1 clerk</td>
<td>1 clerk</td>
<td>1 clerk</td>
</tr>
<tr>
<td>If you could change one thing about the process what would you change?</td>
<td>Add help</td>
<td>Nothing</td>
<td>No specifics</td>
<td>Nothing</td>
<td>Need better communication between charge nurse and clerks</td>
</tr>
<tr>
<td>when do you begin the paperwork for scheduled admissions</td>
<td>receiving booking sheet</td>
<td>soon as clerk hears about it - completes paperwork for a whole week at a time</td>
<td>when charge nurse come back from bed briefing</td>
<td>upon confirmation - start when see booking sheet</td>
<td>pre admits- midnight shift will prepare, otherwise when the booking is received.</td>
</tr>
<tr>
<td>Question</td>
<td>6B General Care</td>
<td>8A General Care</td>
<td>8B General Care</td>
<td>5E Peds Cardiac General Care &amp; MC</td>
<td>6M General Care</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-----------------------</td>
<td>-----------------------</td>
<td>-----------------------</td>
<td>----------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>if you have multiple scheduled admissions how do you handle this, do you complete them one by one or do you work on them simultaneously</td>
<td>Both ways</td>
<td>One at a time</td>
<td>All at once, complete one task for each</td>
<td>Multiple, sometimes have surge support to help</td>
<td>Not applicable</td>
</tr>
<tr>
<td>when do you label the forms</td>
<td>Before the patients arrive</td>
<td>As soon as she knows a patient will be coming to the unit</td>
<td>Immediately upon notification from charge nurse</td>
<td>Upon confirmation</td>
<td>Label when find out patient is coming</td>
</tr>
<tr>
<td>where do you place the flowboards when they are ready for the patient?</td>
<td>Outside of the room</td>
<td>At the room</td>
<td>At the room</td>
<td>Techs take the flow boards to the room, sometimes nurses</td>
<td>Behind desk until admit arrives then on desk when ready</td>
</tr>
<tr>
<td>where is the printer for stickers and arm bands</td>
<td>3 feet away</td>
<td>Right next to clerk</td>
<td>In the middle of the room on wall</td>
<td>Across desk</td>
<td>Opposite side of desk</td>
</tr>
<tr>
<td>where is the printer for the profile/immunization sheet</td>
<td>10 feet away</td>
<td>5' away</td>
<td>In the middle of the room</td>
<td>Across desk</td>
<td>Corner of desk</td>
</tr>
<tr>
<td>do you work multiple units, if yes is one better than the other</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>where are the extra flowboards kept</td>
<td>Everywhere</td>
<td>Shelf above desk</td>
<td>Under desk, new in stockroom</td>
<td>Stocked in back room</td>
<td></td>
</tr>
<tr>
<td>how many blue binders do you have</td>
<td>32</td>
<td>Sometimes not enough, sometimes extra</td>
<td>Not enough, often cant finish the process when desired</td>
<td>Usually have enough because of the size of the unit</td>
<td></td>
</tr>
<tr>
<td>do you place the name labels where they need to be or do you just get them ready to be picked up and placed by someone else</td>
<td>6B General Care (The clerk herself)</td>
<td>8A General Care (Clerk places labels in proper location)</td>
<td>8B General Care (Clerk places labels in proper location)</td>
<td>5E Peds Cardiac General Care &amp; MC (Tech places them)</td>
<td>6M General Care (Host puts flowboards and labels out)</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>how was the training manual portrayed to you - standard work?</td>
<td>Never seen packet</td>
<td>Never seen</td>
<td>Never seen</td>
<td>Has read it extensively but says only about 50% is applicable</td>
<td></td>
</tr>
<tr>
<td>why do you do the process differently than as described in the training manual?</td>
<td></td>
<td></td>
<td></td>
<td>Preferences, changes over time, some information is pre carelink, use resources on CSR website</td>
<td></td>
</tr>
<tr>
<td>Average number of interruptions</td>
<td>12.67</td>
<td>0</td>
<td>0</td>
<td>2.33</td>
<td></td>
</tr>
<tr>
<td>Time between first notification and patient arrival (minutes)</td>
<td>31.33</td>
<td>173.33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time between second notification and patient arrival (minutes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Admission Length (minutes)</td>
<td>20</td>
<td>13.33</td>
<td>24</td>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>
Appendix H: Interview with Central Staffing Resource Management

1. Can you give us a brief summary of your job description and responsibilities?

2. Are you aware that the tasks completed before patient arrival is unique to each unit? (i.e. some clerks complete all paperwork before the patient arrives, some wait until the patient arrives, etc.)

3. Do you find the units have different processes and do you know an underlying reason for this?

4. How influential do you think the doctors and nurses are on the admission process? Explain?

5. How influential do you think the type of patient is on the admission process? Explain?

6. How are the clerks trained?

7. How often are the clerks monitored to determine whether they are completing the process in the way they were trained?

8. Do you ever consider/have you considered doing a refresh course every year or ever two years to refresh the clerk’s memory of the proper way to complete the process?

9. How do you expect the process to be completed (step-by-step if possible)?

10. Are there any other reasons other than cost-based for only having one clerk per unit?
Appendix I: Process Flow Charts

4A – General Care

1. Get calls from admitting or charge nurse
2. Get the admin packet ready
3. Print labels
4. Sticker forms
5. Put the forms in blue folder and red folder
6. Put the blue folder in the chart rack
7. Give the red folder to the nurse
8. Wait for patient to arrive
9. Put information into main frame
10. Page doctors and nurse
11. Process orders
4B – General Care

Receive list of patients from bed briefing → Fill in census sheet → Get the admission ready (printing labels, sticker forms, tags made) → Make up the blue chart

Make up the green chart → Wait for patient discharge → Slide the new patient tag in locator board → Wait for patient arrival

Put info into mainframe → If patient is discharged, take out from mainframe → Order diet and equipments → Page doctor and nurse
4C – General Care

1. Notification of patient arrival by the charge nurse
2. Write patient information on census
3. Put tags on locator board
4. Print stickers
5. Set up the blue chart
6. Assign bed
7. Order equipment
8. Wait patients to arrive
9. Page doctor or nurse
10. Put the patient in Mainframe
4D – Neuro ICU

Notification of patient arrival by the charge nurse
→ Receive registration number and name
→ Receive bed assignment
→ Print patient labels

Put one tag on the locator board
→ Put one tag on the door board
→ Fill out census
→ Put bedside binder at the room

Order equipment
→ Wait patient arrival
→ Put the patient in Mainframe (room, floor number)
5A – General Care

Notified by the admission or charge nurse → Print face sheet → Print labels → Make tags

Put tags on locator board → Fill out the census → Put forms together in a bundle → Page doctors and nurse

Put information in the mainframe
5B – General Care

Receive list of patients from bed briefing → Fill in census sheet → Write on locator board → Print stickers

Print tags → Set up the flow board → Set up the blue chart → Order equipments

Wait for patients to arrive → Page doctor and nurse
5C – General Care

Receive list of patients from the nurse → Get the registration info on the final surgery schedule form → Put info on mainframe → Print face sheet

Print labels → Make tags → Put tags on locator board → Go to care link

Print immunization form → Put forms together in a bundle → Write names on census sheet → Page doctor and nurse

Go to care link to check on diet
5D – Surgical ICU

Notified by the charge nurse → Receive registration number → Receive bed assignment → Print patient labels

Make tags → Put tags on locator board → Write census → Put the beside binder in front of door

Order equipment → Wait patient arrival → Put information in the mainframe
6A – Adult Rehab

- Charge nurse informs the clerk a patient will be arriving
- Wait till patient receive medical insurance clearance
- Print the patient labels
- Print tags
- Print face sheet
- Get the chart together
- Place forms in flow board
- Fill in census sheet
- Check for discharge order from previous service
- Inform nurse if insurance is cleared
- Write names on locator board
- Fill out the admission packet
- Stickers the forms
- Patient arrives
- Page doctor and nurse
6B – General Care

1. Receive admission request
2. Call admitting to give bed assignment
3. Fill out census sheet
4. Have the admin packet ready
5. Make up the blue chart
6. Sticker forms
7. Have the flow board ready
8. Wait for patient arrival
9. Put info into main frame
10. Page doctor and nurse
6C – General Care

Receive notification from charge nurse and admitting

Check online for bed tracking

Make tags for locator board

Make labels

Make up the blue chart

Put into main frame

Setting admin pack ready

Sticker forms

Fill out census sheet

Waits for patients

Order equipments

Page doctors and nurses
6D – Critical Care Medical ICU

- Charge nurse is told patient is arriving by fellow
- Clerk tells admission department about patient arrival
- Print labels
- Prepare paperwork

Set up room – equipment, tag room, replace bed, replace curtain

Nurse reports to clerk for additional information that must be addressed

Put the patient in mainframe

Deal with other issues (i.e. family, visitors)
7A – General Care

Charge nurse gets a page from admitting or ER sends up booking information

Write the patient information (all except arrival time) on census

Charge nurse tells the clerk which room the patient will be sent to

Get the admission packet together

Label forms

Make flow board tag

Make the tags for the door

Print wristband

Print a patient armband if from the ER

Patient arrives

If from ER put in admitting diagnosis

Put the patient in Mainframe (room, floor number)

Put diet orders in WebDoes

Page doctor and nurse
7B – General Care

Receive booking from printer or admission calls

Make the profile, immunization, and face sheets

Get report that the patient is arriving

Put the admission forms together

Label forms

Place forms in blue chart

Place forms in flow board

Patient arrives

Page doctors and nurses

Process orders

Update census with time of patient arrival
7C – General Care

1. Receive booking from admitting
2. Make locator tag for the board in the office
3. Print labels, face, and immunization sheets
4. Patient is slotted to a bed

5. Make room tag, chart label, and med bin tag
6. Pull charts (blue and flow board)
7. Write patient information on census
8. Label the paperwork

9. Put papers in blue chart and on flow board
10. Put flow board at the room
11. Place the name tags in the holder at the room
12. Put med bin tag in med room

13. Patient arrives
14. If the patient comes with paperwork, file it into the blue chart
15. Transfer the patient to the unit and room in CareLink
16. Page doctors

17. Place admission orders
7D – Cardiac ICU

1. Clerk receives registration number of arriving patient
2. Put the patient into Mainframe as transferred to the unit
3. Print registration labels
4. Fill out the room tags and stickers
5. Pull together forms and label them
6. File forms into bedside binder
7. Put the binders and tags in proper locations
8. Receive a call the patient is on their way
9. Patient arrives
10. Put arrival of patient into Mainframe
11. Page doctor
12. Wait for orders
13. Place orders
Admitting sends patient arrival information or receives from charge nurse after bed briefing

Write patient information on census

Print labels

Label forms

Prepare labels and chart tags

Charge nurse assigns the patient to a room

Place the blue chart on cart

Slot the patient into a bed on the bed board

Page doctor

Place the flow board at the patient room
8B – General Care

Charge nurse informs the clerk a patient will be arriving

Make locator board tags and slot the patient

Print face sheet and armband out of mainframe

Print 26 labels for the patients forms

Sticker forms

Make tag pack

Put together bedside chart

Put together blue binder (if binder is available)

Write patient info on census (in pencil incase of no-show)

Put door tag and bedside chart at patients room

Put medcart tag in the medicine room

Write room number on census

Patient arrives

Page doctors and nurses

Put patient into Mainframe

Wait for admission orders

Process patient orders – diet, equipment, etc.
8C – General Care

Go through admission info supplied by charge nurse to get the list of patients expected for admission

Make labels for boards

Print labels and profile sheet

Get a call or fax from admitting that patient is in recovery

Bed patient on the board

Label forms

Place forms in flow board (all except discharge)

Hang flow board to wait for nurse or doctor to pick up

Place forms in blue chart

Patient arrives

Put patient in census

Page doctor

Transfer patient into bed through Mainframe

Enter diagnosis, house officer in CareLink

Enter diet in WebDoes

Order equipment from Supply Chain
8D – Moderate Care

1. Receive a call from admitting
2. Print labels
3. Get the patient paperwork ready
4. Get the board tags ready
5. Patient arrives
6. Page physician
7. Wait for orders
8. Place orders
CVC ICU

- Notification of patient arrival by the charge nurse
- Assign room in board
- Bring back the form in the room

- Survey schedule
- Set up the room
- Put the forms in the blue chart

- Fill out census
- Walk the room
- Put the sticker in the room
- Put on stickers
- Put the patient in Mainframe (room, floor number)
CVC 5

1. Notification of patient arrival by the charge nurse
2. Receive registration number and name
3. Print registration labels
4. Fill out the room tags and stickers
5. Pull together forms and label them
6. Fill out census
7. File forms into bedside binder
8. Put the binders and tags in proper locations
9. Wait patient arrival
10. Put the patient in Mainframe
11. Page doctor
OBS

1. Get the patient list
2. Print labels
3. Sticker forms
4. Print face sheet

Make tags for Locator board

Check if patients come to the unit

Receive calls if patients finished their surgery

Put information into main frame

Page doctors and nurses

Get bed assignment ready
Notification of patient arrival by the charge nurse

Receive registration number and name

Receive bed assignment

Print patient labels

Make 2 tags

Put one tag on the locator board

Put one tag on the door board

Fill out census

Put bedside binder at the room

Order equipment

Wait patient arrival

Put the patient in Mainframe (room, floor number)
TRAUMA BURN ICU

Notification of patient arrival by the charge nurse → Receive registration number and name → Receive bed assignment → Print 30 patient labels

Make 2 tags → Put one tag on the locator board → Put one tag on the door board → Fill out census

Put bedside binder at the room → Order equipment → Wait patient arrival → Put the patient in Mainframe (room, floor number)
5E – Peds Cardiac General and Moderate Care

Charge nurse informs the clerk a patient will be arriving

Booking information is printed on printer

Print the patient labels

Print the patient face sheet

Create chart

Place forms in blue chart

Make sure a room is available

Make sure the patient is slotted for the proper bed

Assign a nurse to patient in call box

Call admitting and inform them of the patient's bed #

Receive notification from admission patient is coming

Enter patient info into census

Patient arrives

If patient doesn't have an id band, print

Put patient into Mainframe

Page doctors and nurses

Wait for admission orders

Print CPI cards

Process patient orders – diet, equipment, etc.
5W – General Care

- Get a list of potential admits from Mainframe
- Nurse goes to bed briefing
- Charge nurse informs clerk of expected patients
- Print labels

- Print face sheet
- Label forms upon patient arrival confirmation
- Patient arrives
- Enter patient information into census

- Page nurse and doctors
- Put patients bed in Mainframe
- Get orders
- Place admission orders and diet specifications
PCTU Peds Cardio Thoracic ICU

Charge nurse informs the clerk of the patients arrival → Print the labels → Label the admission packet → Put the charts together

Print id band for the patient → Order pumps and equipment → Patient arrives → Transfer the patient into the unit via Mainframe

Print code sheets
Peds ICU POD B

The night before the clerk looks at the OR list and gets the list of scheduled admissions, or receive calls from a different hospital, the ED or the charge nurse receives a page.

1. Print the labels
2. Label everything
3. Ensure the patients’ room is ready

Patient arrives

Transfer the patient into the unit in Mainframe

Call doctors and nurses

Place orders
Peds ICU Pod C

Receive form from admitting on printer → Assign the patient a bed → Call admitting and inform them of bed assignment → Print 20 labels

Slot patient → Call doctor → Enter patient into mainframe
6M

Patient is slotted in bed → Assign a nurse to the patient in the call system → Print labels and profile sheets → Sticker forms

Put forms on the flow chart → Put profile sheet, OR paperwork and nurse comment forms in blue chart → Make chart tags for the patient’s room → Enter patient into Mainframe

Write the time of arrival on census → Page doctors and nurses → Put admitting diagnosis into CareLink → Put diet into care link
Charge nurse informs clerk of patient scheduled to come to unit

Put patient on flow board

Notify nurse and get nursing assignment

Page nurse and doctor

Pull up mainframe and transfer patient

Check for prewritten orders

Enter admitting diagnosis and equipment/diet order info Mainframe