

Kishwaukee Hospital

Patient Intake Process Improvement



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Current System

People come to Kishwaukee Hospital every day for many different medical-related reasons. The hospital is set up to take care of thousands of people but is currently not operating in the most efficient way possible. The process of patient sign-in is too long and the hospital is getting complaints because of it.

Step 1: Entering the Hospital

The first step for a patient is entering the hospital. Once they are inside, they approach an information desk where they find out which department they are looking for. The departments are Cardiology, maternity, radiology, Emergency, Obstetrics, neurology, and pediatrics. From the time they step into the hospital to the time they get to their desired department, roughly *five minutes* have passed.

Step 2: Signing in

Once a patient gets into their department, they must retrieve a sign-in form from a secretary. They are not signed in until they complete the sign in form. The form is two-sided and asks basic information questions as well as questions about health history. The sign in sheet takes roughly *eight minutes* to complete. Upon completion, they return the sheet to the secretary who then inputs the info into the computer system. This takes about *two minutes*. The secretary also asks the patient for their insurance information at this time. The patient is now signed in and waits for their name to be called.

Step 3: Waiting

After the patient is signed in, they sit in the waiting room for their turn. The average time a patient waits is *27 minutes*. During the waiting period, the doctors are visiting with other patients, and nurses are either with patients or cleaning a used room.

Step 4: Patient Room

Once a room is available, the patient is escorted to the room where they wait for a nurse to come in and take vitals. It takes about *four minutes* for the nurse to enter and another *four minutes* to take the vitals. Once the nurse leaves, the patient waits another *twelve minutes* for a doctor to arrive.

Patient Intake Process – Total time:

It takes a patient on average **62 minutes** from the time they enter a hospital to the time that they see a doctor.

System Problems

1. **Process length** – The underlying problem with Kishwaukee Hospital's current patient intake process is that it takes too long. As stated, the average time it takes a patient to see a doctor from the time they enter the hospital, to the time they are face-to-face with a doctor takes just over an hour. More and more patients are coming forward with complaints about this time delay, stating that it is not only highly inconvenient, but it can potentially lead to patients' health issues worsening if they are not able to see a doctor promptly. These accumulating complaints

have prompted Kishwaukee Hospital management to assess how they can alleviate unnecessary waiting time within their patient intake process.

2. **Patient Admission on Paper** – A major contributor to Kishwaukee Hospital's long patient intake times is attributed to the fact that the hospital's patient sign-in forms are conducted exclusively on paper. Once the patient arrives at their respective waiting room, they are prompted to fill out a relatively standard check-in sheet where they provide basic information about themselves, their reason for visiting, and information about any pre-existing health issues and/or conditions. This is the standard practice used by all hospitals, however it is done in an inefficient manner compared to other hospitals. The amount of time it takes the patient to fill out the sign in form and then for it to be entered into the computer system by the office secretary provides unnecessary down-time in the process.

3. **Staff Availability** – Another major factor contributing to inefficient patient intake times is the fact that there is not enough staff available to effectively cater to patient needs. On top of being understaffed, a large portion of staff time is tied up in attempting to stay on top of scheduling and room availability because it is all done on paper. This current format is inefficient because many different activities and events are constantly happening everyday within the hospital, and it can not be tracked effectively. It is economically and operationally feasible for the hospital to hire on more staff, yet they choose not to in order to keep costs to a minimum.

Proposed System

The system we propose is a hospital wide database that stores all patient information from allergies, past medical history, and insurance etc... The hospital will have two ways to get the data, have the patient fill out a master form there next visit or download the app that the hospital develops and the patient can enter it in manually that is linked to the database. The new system will be as follows:

1. **Patient Intake Clipboard option:** When a patient comes in the nurse working at the entrance will be given a form just like before. However the revised form will only need to be filled out once. The form is two-sided and asks basic information questions as well as questions about health history. The sign in sheet takes roughly eight minutes to complete. Upon completion, they return the sheet to the secretary who then inputs the info into the computer system. The nurse will still do the same process except now she will enter it into the database.

Application option: For patients who do not wish to fill out the clipboard option, they will be able to download the Kishwaukee Hospital Patient Intake app where they can entire all their information with the help of a wizard to make the process user friendly. If a patient does not have a smartphone, or cannot download the application, they will have the option to fill out their information on a computer provided by the Kishwaukee Hospital. This will reduce patient intake time by creating an automated process that is easy to understand and accessible.

2. **Computer system changes (upgrade from paper to electronic):** The new process will have all patient information stored electronically onto the database. The current system being used is: the patients come in and fill out the same forms everytime, the nurse then enters the information into the computers database, the nurse asks for any changes since their last appointment (such as insurance, medical history, etc), and then the patient is all checked in and ready to be seen. By having this process automated, it creates data that is easy to store, edit, and transfer.
3. **Staffing changes:** The old system had the nurses review all the paperwork and then manually enter the raw data into a database, which can take a lot of time. By having patient use the application option, the data the enter into the application will be transferred straight into the database, allowing staff to allocate their time to more important tasks. When the patient goes back to see the doctor, their is no need to ask for any insurance cards, and it allows the nurse to focus solely on the patient. Once the nurse and the patient are in the room the nurse can right away start taking the vitals of the patient, since there is no paperwork to review. Since there is no paperwork to review the nurse and doctor can just pull up their file and review anything with the patient. This is helpful because their won't be any unclear writing plus it will be more organized for nurses and doctors to have all patient information at the palm of their hands.