
Prescription for Success

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When a patient needs a medication, it is imperative that it be delivered in a timely manner. Interruptions in this process could literally mean the difference between comfort and extreme pain, or in many cases, the difference between life and death. The period from the time medications are prescribed to the time the drugs reach the patient is often fraught with many bottlenecks. This was a situation in which the staff at a Michigan hospital found themselves. Premier, a group purchasing and consulting organization, was asked to help solve the dilemma and expedite the procedure for getting the right medication to the right patient—at the right time.

Problem

Premier wanted to find out why staff members were often slow in transcribing and filling physician's medication orders.

The lag time could be as much as 8-12 hours from the time the medication order was written to the time the medication reached the patient. The delays ultimately affected delivery of the drugs to the individual care units and thus, to the patients themselves. Besides lengthening the time of their hospital stay, the lag time put patients at risk, especially those that needed pain medication or those who needed vital antibiotics to arrest infection. Key questions that needed to be addressed included: What process step has the potential to result in the best patient outcome? Which process step, if any, should be eliminated? Which process step costs the most, and which process step (if modified) could end up saving money?

Premier set a number of goals pertaining to this fact-finding mission. They included:



At a Glance

Problem

Premier wanted to find out why staff members were often slow in transcribing and filling physician's medication orders. The lag time could be as much as 8-12 hours from the time the medication order was written to the time the medication reached the patient. Besides lengthening the time of their hospital stay, the lag time put patients at risk, especially those that needed pain medication or those who needed vital antibiotics to arrest infection.

Solution

Premier developed several objectives relating to this plan, including deciding who has the responsibility for transcribing physician orders and standardizing the way pharmacies are informed of new medication orders. Premier sought out ProcessModel® simulation modeling for their expertise in helping resolve these and other issues.

Results

By inputting and analyzing data from ProcessModel, Premier was able to change protocol so that all departments worked together and medication orders were processed much more quickly.

- Identifying where and why delays occurred in the process
- Decreasing the amount of time used to transcribe orders to one hour after they are written
- Identifying the resources required to request and administer a medication
- Decreasing the amount of time required to deliver medications to patient care units
- Ensuring that once medications reach the patient care unit, the RN is informed

Solution

Premier developed several objectives relating to this plan, involving:

- Deciding who has the responsibility for transcribing physician orders
- Communicating this method to nursing and pharmacy staff
- Identifying which department is responsible for control of narcotic use and recordkeeping
- Standardizing the way pharmacies are informed of new medication orders

(Standard procedures already established included faxing in orders to pharmacies, having technicians pick up the orders from the pharmacies, and having the pharmacist in the satellite pharmacy transcribe the orders).

Initial recommendations for solving the problem included:

- Notifying the pharmacy when a unit closes and reopens
- Establishing a group of

professionals (pharmacists and nurses) to develop a synergistic plan for medication delivery, administration, and control between the two departments. Because walking a group of people through the entire process takes so much time and effort, simulation provided a system map so that the overall picture could be viewed.

Because there were bottlenecks on the patient care unit concerning questions about staff responsibilities, Premier recommended revisions in policies and practice procedures. However, the working committee needed to demonstrate for key decision-makers in the hospital hierarchy where the bottlenecks occurred. Because of the intricacies of the situation, Premier decided that a standard flow chart just wouldn't do. They needed something more visual and demonstrable that would have a forceful and influential impact. So Premier sought out ProcessModel® simulation modeling for their expertise in helping resolve these issues.

Results

By inputting and analyzing data from ProcessModel, it was discovered that each department was working independently of each other because they could not "see" how their role impacted the system. Premier was able to change protocol so that all departments worked together and medication orders were processed much more quickly. This completely changed the approach that had formerly taken so long. One key change utilized electronic

technology in expediting fulfillment of prescriptions. Previously, pharmacy technicians would pick up the orders at the hospital in person and deliver them to the pharmacy. Due to ProcessModel simulation results, the hospital began expediting prescription orders via fax machine, with plans to implement electronic order entry software in the next fiscal year. In addition the pharmacy identified potential FTE savings once new equipment and electronic software was in place.

FIND OUT MORE

About the Author: Dr. Lepley has performed client-based evaluation services since March 1993. She is responsible for program assessment, planning and evaluation in various health care settings. Product line responsibility includes patient care process improvements, patient acuity assessments, and development of staffing models, and community health assessments and planning. Her education includes a Ph.D. in Health Studies from Texas Women's University, a Masters of Science in Nursing from the University of Colorado, and a Bachelors of Science in Nursing from Loretto Heights.

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