Nursing Informatics Flowchart

Name

Institution
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Introduction

The nursing informatics flowchart below is based on health care software called the Bar Code Medication Administration or the BCMA software. This software provides the solution to address the challenging issues of medication errors. This is an electronic based system, which validates and documents information about inpatients. This software ensures that a patient receives the right medication and dose at the right time through the correct channel. The software is able to alert the nursing staff when appropriate parameters are not met. Adverse effects of drugs, which results from inappropriate medication may cause deaths to inpatients. According to the records of WHO, about ten thousand deaths of inpatients annually are associated with errors in medication. The cost of health care in the United States continues to worsen. With rapid development in computer technology, we may assume that health care providers may use this technology. This software enhances the efficiency of medical provision (Schneider, Bagby & Carlson, 2008). However, this has not occurred. In fact, less than 10 percent of health care organizations have incorporated this technology in the health care activities. The flow chart below elaborates how the software can effective serve a health care organization.
Physician writes med order on chart

Physician flags chart to indicate new order

RN verifies order on medicine order

Ward clerk transcribes order onto paper MAR

RN/LPN uses MAR to view medication administration

RN/LPN uses MAR to Identify patient

RN/LPN administers medication

RN/LPN documents the medication given on MAR

RN writes down admin time on the same paper MAR

RN taxes verified medication order sheet to pharmacy

Pharmacy fills order

Pharmacy tech hand counts pills

Pharmacy tech brings medicines to ward

RN/LPN documents the medication given on MAR
Explaination of the Flowchart

The process of administering the medication starts with the physician writing the medical prescription order onto the order sheet in the paper chart. The physician would then flag the chart. He would achieve this by moving a tab to indicate red flag on the hard chart cover. This would alert the nurses and clerical staff that the physician has written a new order. The physician would then return the chart back to the desk of nurses. The registered nurse or RN would verify the medication orders on the order sheet and then provide that order sheet to the ward clerk. The clerk would then transcribe onto the paper MAR. This will leave the administration time blank. The registered nurse or RN would then write down the administration times for every medical prescription on the similar paper MAR.

In the next step, the registered nurse would fax the prescription order sheets to the pharmacy. Once the pharmacist has received the faxed prescription order sheet, he or she will verify every order and send the order to the technician in the pharmacy to fill them by hand. The technician would then collect all the medicines for the patient and deliver them to the ward where the patient is located. This would allow the nurse to start administering the prescriptions according to dates on the MAR. The next step in the administration of the patient’s medication would be for the registered nurse to collect the appropriate medicines for the patient and put them in the patient’s drawer in the mobile medicine cart.

The registered nurse would use the paper MAR together with the medication cart to review the medical prescription and administer time for medications. When administering the medication, the RN would again verify the correct medication, dosage, route, time and the right patient. The registered nurse would verify the patient by matching the patient’s name on the
MAR with the similar name of the patient. After verifying that the above features are right, the RN would then administer the medications. Once he or she completes the administration process, the registered nurse would then document on the MAR that he or she has completed the medical administration. However, the processes that follow BCMA administration procedure present some contrast to the preceding procedures of administering medications. In the above figure, administration of medication applies BCMA and computerized record system for patients.

The main advantage of the software is that when the user moves the mouse cursor over the text, a hint will appear which contains a complete text for the new order. The local site sets the danger level associated to each order check. This helps in determining whether the order check needs the clinician to enter the justification text or not. For example, the package for the patient helps in determining if the interaction of drugs is either critical or significant. Every site will then determine whether the service provider must enter a reason for overriding. The system will help in doing this by setting the danger level of clinical services for critical and significant interaction order checks. If the system sets the danger level to high, the clinician must enter the justification code to override the order check. In the case of low level, then the clinician does not need to enter the justification code.

For example, assessment of allergies also uses the order checks. If the system sets No Allergy order check to high level and the patient does not have assessment to allergy, the order will need justification code in order to override. If the site has set clinical danger levels to moderate, then there is no reason to override the order. When the user enters a high level of danger, the system will send the justification for the override. For example, a user of the clinical dietetics package would see the justification of an order about allergy to be overridden. The
pharmacy printer will generate the printout of the order. The pharmacist will then verify the medication order together with the result of all checks of the orders. Finally, the pharmacy system would retrieve the right medication and put it in the drawer of the patient. The pharmacy technician will then place the drawer on the movable medication cart. He or she will then deliver the mobile cart to the treatment room on the unit where the patient is laid. During the printout of the order generated at the pharmacy printer, a printout is also generated from the ward printer. This happens to alert the organization’s staff about a new medication order from the physician. The physician who generates these orders can be located anywhere in the facility where he or she can access a computer. The registered nurse verifies prescription order and places the verified order on the BCMA screen.

When a nurse administers medical prescription using the BCMA software, the first step is to log into a computer with the BCMA software. In order to access the medical prescription record of the patient, the registered nurse would scan the bar-coded wristband of the patient (BCMA Focus Team, 2001). The wristband consists of the name of the patient and the number of social security of the patient. It is because the two identifiers are used by the health facility to identify the patient. If the screen displays incorrect information about the patient, the RN does not check the identity information box of the patient. In this case, the process will be terminated. If the screen displays the correct information about the patient, the RN will check the identity information box of the patient. In such case, she or he will click yes to continue. The administration of electronic medication record will appear on the screen. In order to document the administration of the patient’s medication, the registered nurse should scan the bar-coded medication package. Depending on the dosage of medical prescription that the pharmacist filled, several scenarios may take place. For example, if the prescription order is Aspirin 81 mg PO Q
Day, the medication will dispense one package containing one tablet of Aspirin 81 mg from the pharmacist’s desk and when scanned, the documents from the BCMA software will indicate that the medication was given therefore ensures patients are safe (Schneider, Bagby & Carlson, 2008).
References
