

Change Management: Overcoming Care Transition Challenges



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– KATHARINE PERICA, PHARM.D
PHARMACIST
UCHEALTH

Change can be confounding. Nowhere is that more true than in healthcare. In fact, according to the 153 clinicians surveyed by HIMSS Analytics for the *2017 Medication Management and Safety Study*, care transitions create the greatest vulnerabilities in the medication management process (Figure 1).

Unfortunately, care transitions typically come fast and furiously in the hospital setting – as patients frequently move from one care setting to another. “Every time a patient moves, [his or her] medications change. And clinicians could miss a medication that is critical for the patient. The patient should be continuing on a blood pressure medication, but the doctor zeros in on the new medications and doesn’t order it. The patient’s blood pressure goes up, and he could possibly have a stroke or heart attack. It just becomes very complicated,” said Nicole Wilson, RN, Clinical Marketing Manager of Medication Management Solutions at BD.

In fact, vulnerability is exacerbated by a variety of complications such as:

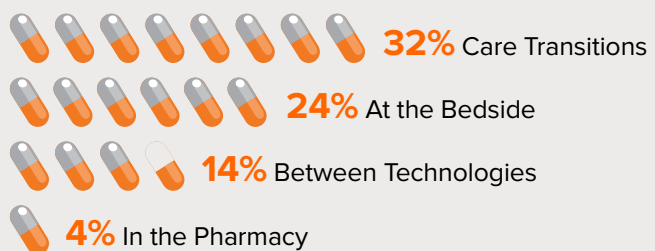
The need to reassess. “Technically, clinicians should always come back to reconcile medications. For example, if home medications were not continued while the patient was in the intensive care unit, but the patient is now going to a step-down unit, clinicians need to once again reconcile the medications. Clinicians don’t always tie up all those loose ends,” said Katharine Perica, PharmD, a Pharmacist at UCHealth.

Formulary changes. “The patient might be taking a certain medication at home, but the hospital pharmacy doesn’t carry it. So, [it has] to find a substitution and formulary change,” Wilson said.

Training. “When you have a lot of different clinicians thrown into the mix, training can be challenging. And when you have a high volume of people – all of whom need to spend a good deal of time on the electronic health record” – organizations could struggle to devote resources to medication-administration education, Perica said.

Workflow. “When patients are going from OR to PACU, or from ED to the floor, there are definitely ways that technology can be used to improve these transitions, but organizations also need to consider workflow and human factors to ensure that the handoff is successfully completed,” said Deborah Bonnes, a Nursing Informatics Specialist at UCHealth.

Figure 1: Clinicians identify most vulnerable points in medication management process



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– **DEBORAH BONNES, RN**
NURSING INFORMATICS SPECIALIST
UCHEALTH

Conquering challenges

To overcome challenges, UCHHealth is using a closed-loop barcode medication-management administration system that makes it possible to verify information as it traverses from the computerized physician order-entry system to the electronic medication administration record to the pharmacy system to intravenous pumps.

“The pump integration provides that final piece of the loop so there is not a handoff manually into the pump anymore,” Bonnes said. “Pharmacy is also using its system to look at the data from the pump integration to more accurately ensure infusion bags are available when needed.”

The addition of pump integration, in fact, has reduced the number of reported patient safety events by about 50 percent or more. “There are certain medication errors that pump integration prevents and others that it does not.



For instance, if the nurse keeps the clamp closed on an IV piggyback, pump integration isn't going to fix that tubing error. So, for those things that pump integration could prevent, we did see significant reduction in our patient safety events,” Bonnes said.

What's even more promising, though, is that the academic health system is now in a position to make continual improvements. “If there is a medication error, with pump integration, you have the patient ID on the pump, and you can identify exactly what happened. Did the clinician push this button or that button? Having that knowledge is very helpful for us when we're looking at how to focus our educational efforts,” Bonnes said. For example, the analysis might reveal that clinicians “keep forgetting to hit the secondary button and they hit the start button instead.” In such situations, UCHHealth could then target its educational efforts to address this specific issue.

In addition, moving to a single-vendor medication-management system could help organizations realize even better results from closed-loop systems. More than 70 percent of survey respondents recognize the potential value of moving toward single vendor medication management solutions, which could help streamline the development and maintenance of interfaces between technologies, as well as the communications between provider organizations and technology vendors.

“If you have one vendor to deal with, you're not having to deal with contracts or technical requirements for multiple vendors,” Wilson said. “From a technical infrastructure standpoint, you're going to have one server, one integration, one formulary. It's all going to be one.”



About BD:

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