By Amanda L. Stefancyk, MSN, MBA, RN

TRANSFORMING Care at the Bedside

Postponing Medication Administration

Avoiding a conflict with handoffs and rounds.

This is the eighth in a series of articles from Massachusetts General Hospital in Boston describing one general medical unit's experiences with Transforming Care at the Bedside (TCAB). An initiative begun by the Robert Wood Johnson Foundation (RWJF) and the Institute for Healthcare Improvement, TCAB was developed as a way to improve care on medical–surgical units, patients' and family members' experience of care, and teamwork among care team members, and to increase nurse satisfaction and retention. The TCAB philosophy engages all care leaders, but empowers bedside nurses to generate ideas and solutions for change. Mass General is one of 68 hospitals participating in a two-year TCAB initiative led by the American Organization of Nurse Executives and funded with a grant from the RWJF. For more information on TCAB, go to www.rwjf.org/pr/product.jsp?id=31512.

On White 10, a 20-bed general medical unit at Massachusetts General Hospital, where we work 12-hour shifts that begin at 7 AM and 7 PM, I noticed that our nurses were often hurried at the beginning of the day shift. Handoffs and medication administration occur virtually at the same time. After talking with nurses, I wondered how much time they had to spend with patients and whether our current medication administration practice was truly optimal. What if something could be done about this bottleneck at the beginning of the shift?

The first step was to see what all the chaos was about. At a national Transforming Care at the Bedside (TCAB) meeting in July 2007, I'd heard Jill Fuller, PhD, RN, chief nursing officer of Prairie Lakes Healthcare System in Watertown, South Dakota, describe "shadowing" as a good way to learn what staff nurses spend their time on, so I decided to try it. I followed a day-shift nurse, Michelle O'Laughlin, BSN, RN, CMSRN, for the first three hours of her shift, documenting all her activities in writing and photographs.

Michelle's morning could be described as fast paced and, at times, ever so slightly chaotic. After three hours I was tired, and it was only 10 AM. Michelle had come to White 10 as a new nurse 18 months earlier. On the day I shadowed her, she was returning for her third day shift in a row and was familiar with her three-patient assignment: a 72-year-old man with pancreatitis, a 34-year-old woman with an exacerbation of Crohn's disease, and a 73-year-old man with cardiomyopathy. Michelle had started her day a little early, at 6:45 AM, as was her routine. She received handoff on her three patients and then spoke briefly with the off-going nurse. Handoff ended at about 7:25 AM, and several tasks then required her attention.

Because hospital policy states that we have from one hour before to one hour after the scheduled time to administer a medication, and medication administration was usually ordered for 8 AM, the clock was already ticking. For the next 20 minutes, Michelle checked in on her three patients, performed brief assessments, glanced at vital signs, gave one patient a boost in the bed, and helped another to the bathroom. Then she went to the medication room and started preparing medications for one of her patients. By 9:05 AM, all morning medications had been administered, and she'd also taken a phone call about how a patient would travel for a test, provided an update to a consulting physician at the nurses' station, and given two more boosts to a restless patient as she passed his room. Patient care associates usually assist with some of these activities, but on this day our two associates had been assigned to direct one-to-one observation. After administering medications, Michelle went to a conference area to present her three patients to the physician team, which lasted about 45 minutes, a little longer than usual.

The busy pace wasn't the biggest surprise to me; it was how little time in the first few hours of the day was spent on direct patient care. Faced with several equally important activities—receiving handoff from the previous shift, assessing patients, administering medications, and presenting patients to the physicians in rounds—direct patient care became, by default, the lowest priority.

Perhaps the biggest factor was that the times for both medication administration and physician

Michelle O'Laughlin prepares to administer medications. Photo courtesy of Amanda L. Stefancyk.

team rounds were fixed and fell in the first few hours of the shift. The pressure to administer medications on time and with precision was ever present, and getting behind schedule caused a lot of stress. Our patients typically receive several medications at one time, and properly preparing and administering them can be complicated and time consuming, so it's easy to see how nurses might be forced to "borrow" time from direct patient care. In addition, the fixed time for medication administration meant that medications had to be given before rounds; often, however, discussions in rounds led to changes being made to the patient's medication regimen immediately *after* the nurse had just carried out the now superseded order.

Finally, the reduced direct care time had an impact on rounds. Because nurses were now in the position of presenting a 24-hour clinical snapshot of their patients (see my previous column "Nurses Participate in Presenting Patients in Morning Rounds," November 2008), it was important that they assess all of their patients prior to rounds.

Determining what needed to change. The nurses and I put our heads together. The timing of handoff from shift to shift and the participation in rounds couldn't be changed. What if we could change our morning medication administration time from 8 AM to 10 AM? It was possible, but we'd have to communicate with the pharmacy department—having the right medications delivered to the unit in a timely manner was critical.

With my documented account of how Michelle spent the first three hours of her shift, along with data on how long the nurses spent preparing and dispensing medications, I set up a meeting with two senior pharmacists. Associate chief nurse Theresa Gallivan, MS, RN, also attended. But word of our desire to change the medication schedule had reached the pharmacists, and before I could begin they expressed resistance to the idea. I began with an update on the great progress we'd made with the TCAB initiative and discussed our medication administration practices. Initially they didn't appear receptive, but halfway through I could tell they were interested. Toward the end, one pharmacist asked, "Why do we administer medications at 8 AM anyway? Who said *that* was the best time?"

Once we had the pharmacists' support for the change, we set out to make it happen. We predicted that with more time to attend to each of the morning tasks they'd go more smoothly and efficiently. We also predicted greater nurse satisfaction and more direct care time spent with patients. Planning this change took four weeks and involved educating the staff (in meetings, e-mails, and face-to-face conversations), notifying the physician group, and setting a date to "go live."

Testing the change. The nursing staff had a positive response to the change. On the first day we tested it, I noticed a difference in the unit's atmosphere. Staff members were calmer and less hurried. A few nurses smiled during handoff, and I overheard one or two short social conversations. One nurse approached me before 11 AM on the first day and said, "I love the new medication times."

During the next days and weeks I talked with the nurses about what this change meant to them and their patients. Two themes emerged: more time with patients and less stress. One nurse said, "Now that I have more time with my patients in the morning, making rounds with the physician group is easier because I have more information to bring to them." Another nurse said, "The patients benefit because we have more time for them and there's more time for teaching." Another said, "I was rushing to work and was starting to play the first few

moments of the day in my head, already feeling uneasy about getting handoff and starting the medication pass, when I remembered we'd made the change and I knew I wouldn't be running once I got to the unit. I'd have time to organize my thoughts and learn about my patients."

To further validate my assessment that changing the medication administration time was beneficial, I looked at the time–study data on our personal digital assistants (PDAs) before and after the change and was amazed at the difference. The PDA data showed that the amount of time nurses spent in direct care activities in the first three hours of the shift—such as taking vital signs, making physical assessments, assisting with activities of daily living, teaching patients, and communicating with patients or the care team—had dramatically increased. In October 2008, before the change, PDA data showed that between the hours of 7 AM and 10 AM, nurses were spending 52% of their time, on average, in direct care activities. After November 1 that percentage increased to 76%. (For more on using PDAs to gather data, see my previous column "High-Use Supplies at the Bedside," February.)

The early results are promising. No longer do we see a bottleneck at the beginning of the shift, with many activities crammed into the first two or three hours; now these activities are spread out more evenly over the 12 hours of the shift. Occasionally, insulin or medications that must be administered with food, for example, are still scheduled for 8 AM and 8 PM, but most medications are now administered at 10 AM and 10 PM. Staff nurses on other units in the hospital are curious to see whether such a schedule change would work for them, and we plan to continue to assess our results for a few more months before we make recommendations to nursing practice leaders and the pharmacy department. ▼

Next month, I'll highlight one of the four aims of TCAB, patient-centered care.

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