



Plastic Rounds innovation reduces CLABSI and CAUTI

BY VICKY UHLAND

One of APIC's 2015 Heroes of Infection Prevention, Carol Vance, BSN, RN, CIC, an infection prevention specialist at Barnes Jewish Hospital, implemented an innovative way to reduce central line-associated bloodstream infections (CLABSI) and catheter-associated urinary tract infections (CAUTIs). Vance worked alongside Carolyn Tichenor, RT(R)(CT), BA, MHA, SSGB, performance improvement engineer, and Jessica Potts, MSN, RN, PCCN, nurse manager at Missouri Baptist Medical Center, a 489-bed hospital with a 24-hour emergency room.

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The Plastic Rounds program started after infection preventionists (IPs) noticed a trend in late 2012 of a CLABSI per month in the intensive care unit. And in the medical/oncology unit, there were substantially more CLABSIs every month.

So Vance and her team did the usual CLABSI education. The intensive care unit (ICU) had zero infections for the next four months, but then the trend of one a month started again.

“Medical/oncology also had four months with no infections, but we didn’t want to see what happened in the ICU happen there, with the infections going up again,” Vance said.

The IP team decided a different infection prevention approach was needed. So they formed a multidisciplinary committee, including IPs, front-line staff nurses, the chief nursing officer, and the chief medical officer.

They named the initiative Plastic Rounds because CAUTI and CLABSI are both infections caused by devices made of plastic.

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“I knew it would be a hard sell, but if I incorporated it as something people had already bought into, I knew I’d have better results,” she said.

Recognizing that nurse bedside shift reports are a great time to assess use and care of urinary catheters and central lines, the Plastic Rounds team developed a bedside tool.

“We were very hesitant to add another check-off list,” Vance said. “But we needed a tool to create standard work and critical



Barnes Jewish Hospital's Plastic Rounds program empowers nurses to take action to reduce central line-associated bloodstream infections (CLABSIs) and catheter-associated urinary tract infections (CAUTIs).

thinking: Why does the patient have the plastic, does the patient still need it, and is it being properly maintained?”

Potts said the check-off tool has two steps.

STEP 1 evaluates the necessity of urinary catheters and central lines. It has a checklist of conditions, the HOUDINI protocol, that deem whether a catheter is necessary.

“It reminds nurses they have the authority to remove the plastic without physician approval,” Potts said. “And it causes the nurse to think about it every single day.”

STEP 2 is the maintenance step, with a checklist of maintenance procedures for both urinary catheters and central lines. At the nurses’ request, it has a space for both night and day RN initials to hold staff accountable.

The team started the Plastic Rounds pilot on the medical/oncology floor. “The initial feedback was that nurses felt empowered,” Potts said. “I don’t know if they would have questioned things like a patient having two central lines without this protocol.”

Vance said the next step was to create the real-time database. It allows patient-specific data, including what each nurse is assessing every day on a patient. The date an infection occurred can also be included, and staff can see the data before and after the infection

onset. Staff can also compare number of infections by unit.


Tichenor said in order to get physician buy-in, the Plastics Rounds team spoke to physician groups at every opportunity—“even if it was 30 seconds at a department meeting.” They communicated by newsletters and email blasts. They even pasted a poster of Uncle Sam saying “Don’t give me a CAUTI” over urinals.

Nursing education included small group meetings and reinforcement in huddles. The team also created unit-specific education binders.

The results were impressive. After the initial Plastics Rounds education rollout, medical/oncology had 13 months with no CLABSI event.

“It wasn’t just me celebrating with the nurses; it was also the executive team,” Vance said. “It really empowered the nurses.”

The Plastics Rounds pilot was so successful that it was rolled out hospitalwide on April 1, 2014. The CAUTI rate has decreased since then. The CLABSI rate had an overall increase but has fallen to zero the last two months.

The hospital’s quality and safety council has now taken ownership of the process, Vance said. “We wanted to change culture, and we think we’ve succeeded.” 

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