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Medication Reconciliation Still 'The 800-lb Gorilla' In JC Hospital Compliance

ORLANDO, FLA.—Hospital compliance with Joint Commission medication management standards improved in the past year, according to Darryl S. Rich, PharmD, MBA, FASHP, surveyor for the commission, but the same could not be said for several key medication-related National Patient Safety Goals (NPSGs).

Speaking at the 2008 Midyear Clinical Meeting of the American Society of Health-System Pharmacists (ASHP), Dr. Rich said some hospitals were finding meeting medication reconciliation requirements to be difficult.

"It still is the 800-lb gorilla out there," he told attendees. In the first six months of 2008, he noted, the NPSG requirement for gathering accurate patient medication lists on hospital admission was scored as noncompliant in 22% of 638 surveys, while the requirement relating to transfer and discharge reconciliations fared only slightly better at 16%. Both parts of the reconciliation goal failed to sustain the

see JC COMPLIANCE, page 20

Bowel Prep Agents Pose Risk for Renal Toxicity If Guidelines Not Heeded

ORLANDO, FLA.—Concentrated phosphate solutions (CPS) used for bowel preparation prior to colonoscopy often are not used according to manufacturer and FDA guidelines, putting patients at risk for potentially

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In the Emergency Department ...

Pharmacists Speed Access To Lifesaving Cardiac Care

ORLANDO, FLA.—Research has shown that the availability of a clinical pharmacist in the often chaotic atmosphere of a hospital emergency department (ED) enhances medication safety, but a new study demonstrates that a pharmacist's presence can also have an impact on one of the key goals of urgent care: reducing the time to receiving treatment.

The study, carried out by an ED team at the University of Rochester Medical Center, Rochester, NY, found that having a pharmacist present when a patient arrives in the ED with ST-elevation myocardial infarction (STEMI) shaves crucial minutes off the time it takes to get the patient to the cardiac catheterization laboratory, ultimately for a percutaneous coronary intervention (PCI) procedure like balloon angioplasty.



Speaking at the 2008 American Society of Health-System Pharmacists (ASHP) Midyear Clinical Meeting during a session on "Best Practices in Emergency Medicine," Nicole M. Acquisto, PharmD, the study's lead author, noted that practice guidelines from the American College of Cardiology and American Heart Association (ACC/AHA) call for no more than 90 minutes to elapse from the time a patient with acute MI (AMI) arrives in the ED to when he or she undergoes angioplasty.

"We know that door-to-balloon

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In Private Oncology Office ...

CRITICAL CARE

ED PHARMACY

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times greater than 90 minutes are associated with increased in-hospital and late mortality," said Dr. Acquistio, a clinical pharmacy specialist in emergency medicine at the University of Rochester. The study also found that when a pharmacist was present in the ED, median door-to-balloon time was 59 minutes versus 87 minutes when a pharmacist was not present. Moreover, a pharmacist's presence was independently associated with a median time saving of 11.4 minutes from electrocardiographic diagnosis to arrival in the catheterization lab.

The retrospective study, involving 120 patients with AMI who presented to the ED between August 2005 and August 2006, was based partly on a much larger University of Rochester study on the impact of clinical pharmacists on medication safety and quality of care in the ED. The results of that study, funded by the Agency for Healthcare Research and Quality (AHRQ), were presented at the 2007 ASHP Midyear Clinical Meeting.

Ensuring speedy access to treatment can be a lifesaver for patients with AMI in the ED, commented C. Michael White, PharmD, director of the UCONN/Hartford Hospital Evidence-Based Practice Center, Hartford. "In one study, receiving reperfusion therapy within one hour of the onset of symptoms reduced mortality by 76%," Dr. White said. In contrast, mortality was reduced by only 17% in those getting reperfusion four to six hours after the onset of symptoms.

"Studies such as this have proven that survival goes down exponentially over the first few hours after a myocardial infarction and complications such as postinfarction heart failure go up," added

Dr. White. "As such, reducing the time from admission to the emergency department to receiving a definitive reperfusion strategy is imperative. If pharmacists can help reduce this time, morbidity and mortality can be reduced."

Impact on Pneumonia, Sepsis

The Rochester study was just one of a number of ED research projects detailed at the ASHP meeting. One poster study from Saint Barnabas Medical Center in Livingston, N.J., for example, looked at the impact of an ED clinical pharmacist's interventions on quality measures for pneumonia care.

The study found that the proportion of patients with pneumonia who were given initial antibiotic therapy within four hours of arrival increased to 97% in 2007, after Francia N. Kellner, MS, RPh, joined the ED team, from 87% the previous year, when the department had no full-time clinical pharmacist. Additionally, the proportion of immunocompetent patients not in the intensive care unit who received appropriate antibiotic therapy rose to 98% from 90%, while the hospital's overall score for appropriate pneumonia care also rose significantly, to 86% from 66.5%.

At Henry Ford Hospital in Detroit, pharmacists studied the effect of an enhanced pharmacy practice model on the treatment of ED patients with sepsis. The pharmacists looked at several quality measures after the pharmacist intervention program was implemented, including time to antibiotic administration.

The pharmacy initiative was part of an overall effort to improve sepsis treatment at the 903-bed hospital, where the sepsis mortality rate is approximately 30%, according to Nancy C. MacDonald, PharmD, BCPS, a clinical coordinator,

who described the pharmacy program at the Midyear's ED Best Practices session.

"One of the first things we did was to sit down with the Department of Infectious Diseases and develop guidelines for the treatment of sepsis based on the empiric source of infection," Dr. MacDonald said, adding that the pharmacy also created a sepsis-screening tool that pharmacists could use to evaluate patients in the ED.

When they compared postintervention triage-to-administration time to earlier results compiled by the hospital's Department of Clinical Quality and Safety, they found a significant reduction in the number of minutes it took for sepsis patients subsequently admitted to the ICU to receive an antibiotic (113 vs. 185), according to Dr. MacDonald. The time from written order to antibiotic administration also decreased significantly, she said, from 34 to 16 minutes. Dr. MacDonald noted, however, that the pilot study was small and limited in duration, and whereas the postintervention data were gathered prospectively, the comparison group was studied retrospectively.

Focus on Medication Safety

At the core of all of the studies presented at the meeting was the notion that interventions by clinical pharmacists greatly improve medication safety in the high-pressure environment of the ED.

"This is particularly evident in a practice setting with a high volume of verbal orders, many of them for high-risk medications," Dr. Acquistio said. "Traditionally, these orders are executed without a pharmacist's prospective review due to the urgency of treatment. The emergency pharmacist can improve medication safety directly at the bedside by adding an extra layer of safety during the medication-ordering phase, as they are present



Nicole Acquistio, PharmD.

during patient discussions and involved in decision making. They are able to ensure that it is the right medication for the right patient at the right time."

Daniel P. Hays, PharmD, BCPS, one of the Rochester study authors, said he thought the message that ED pharmacists can greatly enhance patient safety "is starting to grow exponentially. Each year that I have been doing this, there have been more and more poster presentations, and more and more well-attended lectures at the Midyear. I think this year's was by far the biggest turnout."

Dr. Hays recently relocated his practice to Arizona and joined the ED team at the University of Arizona Medical Center in Tucson. Before he arrived, he said, "there was very little pharmacist support in the emergency department." The prevailing attitude was that they didn't need one, but "within a couple of weeks," he added, "they couldn't live without one."

Recently, he recalled, a resident asked him about an antibiotic for a pediatric patient with cardiomyopathy who arrived in the ED with pneumonia. "It could have been a significant [adverse] reaction," he said, "not only with the patient's underlying cardiac condition, but also with the digoxin the patient was taking."

—Bruce and Joan Buckley