

# Medication Safety Issue Brief

## *Small and Rural Hospitals*

### *—Unique Challenges, Unique Solutions*

6

of 6 in a series

Series III

Improving patient safety and reducing medication errors at small and rural hospitals is part six in a six-part series that highlights underlying causes of and solutions to medication errors. This series is a joint effort of the American Hospital Association, the American Society of Health-System Pharmacists and *Hospitals & Health Networks*, with generous support from McKesson. You may tear this card out for future reference. Additional copies are available in PDF format, along with those from two previous series, on the ASHP and *H&HN* Web sites ([www.ashp.org](http://www.ashp.org) and [www.hhnmag.com](http://www.hhnmag.com)).

#### ● SUMMARY

Small and rural hospital pharmacies face the same quality challenges as their large, urban counterparts. Yet, they often lack access to the necessary resources to address these issues. That's no minor problem. *AHA Hospital Statistics 2006* reports that 2,003 (41 percent) of the nation's 4,919 community hospitals in 2004 were rural. And, as of Aug. 31, 2005, 1,141 hospitals in the United States are designated as critical access hospitals. People living in rural areas are less likely to have insurance and are by and large poorer than those who live in urban areas, according to the National Rural Health Association. The rural population is also older and tends to suffer from more chronic diseases than residents of urban areas. That adds to the challenge for small and rural hospitals. These facilities must treat complex medical cases with limited resources, often with minimal on-site pharmacy coverage.

#### ● ISSUE BRIEF

Attracting pharmacists to practice in rural areas has long been a problem. A study last year of patient safety initiatives at critical access hospitals found that the mean number of on-site hours by a pharmacist was 23.8 hours per week. One-third of the 474 CAHs who participated in the survey by the Flex Monitoring Team, a consortium of the Rural Health Research Centers at the Universities of Minnesota, North Carolina and Southern Maine, reported that they had a pharmacist on-site only between one and 10 hours per week.

"The ability to review pharmacy orders in a timely manner at small and rural hospitals is a struggle," says Michelle Mandrack, a medication safety specialist with the Institute for Safe Medication Practices. As a result, more of these hospitals are outsourcing pharmacy operations during off hours or are partnering with other hospitals to share resources. The Joint Commission on Accreditation of Healthcare Organizations earlier this year considered a change to its medication management standards requiring that when an on-site pharmacy is not open 24 hours a day, seven days a week, the organization must make arrangements for a pharmacist to review orders during off hours. Although the proposal is on hold, organizations including the American Society of Health-System Pharmacists continue to support the change as a means to improve medication safety and overall quality of care.

Limited financial resources are also a big barrier for small and rural hospitals. Many lack the capital to implement information technologies and equipment that are proven to reduce medication errors. "It's difficult to convince administration that a pharmacy information sys-



American Hospital Association



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## ACTION *Agenda*

Here are some tips to improve medication safety:

1. Review storage of medications, particularly for those deemed high alert. Store these medications in separate locations.
2. Use standard concentrations and premixed solutions whenever possible to eliminate variation in practice.
3. Consider options to expand coverage so a pharmacist can review medication orders before administration to the patient 24 hours a day, seven days a week.
4. Encourage error reporting.

### ADDITIONAL RESOURCES:

- American Society of Health System-Pharmacists Small and Rural Hospital Resource Center, [www.ashp.org/srh](http://www.ashp.org/srh)
- The Institute for Safe Medication Practices, [www.ismp.org](http://www.ismp.org)
- The Department of Health and Human Services' Health Resources and Services Administration Small Rural Hospital Improvement Grant Programs, <http://ruralhealth.hrsa.gov/ship.htm>
- IOM Report: Quality Through Collaboration: The Future of Rural Health Care, [www.nap.edu/books/0309094399/html/](http://www.nap.edu/books/0309094399/html/)

tem is needed when it can account for half of an organization's \$50,000 IT budget," says Teresa Rubio, ASHP's director of the sections of Inpatient Care Practitioners and Pharmacy Practice. But, adds Matt Fricker, a program director at ISMP, "You don't have to spend a lot of money to improve medication safety."

### ● CASE STUDIES

**Paynesville (Minn.) Area Health Care System:** A 25-bed CAH, Paynesville provides pharmacy services from 7 a.m. to 5 p.m. during the week and for three to four hours a day on the weekends. During off hours, the hospital's 2.5 full-time equivalent pharmacists are on-call to review orders. "Due to cost, we cannot contract for after-hours service at the present time," says Todd Lemke, director of pharmacy. The hospital is looking into arrangements with other small and rural organizations to help defray the costs of providing full-pharmacy coverage. In the meantime, the hospital is working to address other medication safety issues. "We had a problem with error reporting," says Lemke. "Previously, we relied on a paper-based reporting system that was time-consuming and required the individual's identity." As a result, the hospital received less than a handful of error reports each month. The hospital developed a Web-based, anonymous reporting system; about 600 errors were reported in its first, full year in operation.

**Watauga Medical Center, Boone, N.C.:** A 117-bed acute care hospital in western North Carolina, Watauga Medical Center has had a difficult time finding pharmacists to fill shifts to provide around-the-clock pharmacy coverage. The hospital pharmacy is currently open from 7 a.m. to 11 p.m. Monday to Friday and 7 a.m. to 7 p.m. Saturday and Sunday. The nursing staff wanted 24-hour coverage. Stephen Novak, director of pharmacy services, approached a larger hospital about providing overnight coverage, but the hospital declined. He has since outsourced pharmacy coverage during off hours and high-volume times. "The nursing staff is pleased," he says. "We are experiencing a nursing shortage and a pharmacist shortage and this relieved pressure on both sides."

**Regional West Medical Center, Scottsbluff, Neb.:** A 185-bed referral center in western Nebraska, Regional West has turned to technology to improve operations. "We have a really large pharmacy inventory," says Brenda Hall, vice president of patient care services. "We do just about anything for anybody." The medical center integrated an electronic medication administration record with its clinical and nurse documentation system. Bar coding is in place throughout the hospital, with the exception of the emergency room. And, a pilot program for computerized physician order entry is under way. "We've had about a 30 percent reduction in medication errors since we implemented bar coding three years ago," Hall says. The hospital plans to automate the dispensing process by 2007. Convincing administration that these IT investments should be a priority was not difficult. "It's not that people don't believe in the value of the technology, it's that we have so many competing needs," she says. ●

