## Majority of Hospitals Facing Drug Shortages

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inety percent of hospitals experienced a drug shortage in the last half of 2010, and 80% said that the shortages had resulted in a delay or cancellation of a patient intervention, according to a survey by Premier Inc., a voluntary hospital and health care alliance and group purchasing organization.

Emergency departments are not immune from the shortages. Among other medications, the short-acting sedative propofol has been difficult to get for at least a year, said Dr. Michael L. Carius, chair of the emergency department at Norwalk (Conn.) Hospital.

Premier surveyed 311 pharmacy experts from hospitals; infusion centers; oncology and surgery centers; outpatient and retail pharmacies; and long-term care facilities during the period of July-December 2010. The results were released in a telephone briefing.

Not only did the majority report trouble accessing critical drugs, but at least a third reported experiencing access problems more than six times. According to Premier, shortages are at an all-time high. The Food and Drug Administration, the American Society of Health System Pharmacists, and other groups have been closely tracking the shortage problem over the last year.

In emergency departments, the shortages are "a significant problem" that "has a lot of potential downside," Dr. Carius said in an interview after the briefing.

With propofol, for instance, there are alternatives, but when physicians switch to a drug that is less familiar, he said, it increases the potential for a bad result.

The propofol shortage began in the fall of 2009, when two manufacturers halted distribution due to manufacturing problems, the FDA reports on a Web page devoted to the propofol shortage. It has continued as one manufacturer dropped out and the others have struggled to meet demand, according to the agency.

Caring for patients with acute myocardial infarction also has gotten more complicated as nurses have had to switch from prefilled syringes of epinephrine, which are in short supply, to filling their own syringes. "It adds steps to the process and [to] the potential for error," Dr. Carius said.

Over the second half of 2010, more than 240 drugs were in short supply or unavailable, and more than 400 generic drugs were back-ordered for 5 days or longer, according to Premier's analysis. Many of those drugs still are not available.

The shortages are costing American hospitals at least \$200 million a year, largely because the facilities have to buy more expensive alternatives or therapeutic equivalents. Hospitals are paying an average 11% more for these products, but sometimes more. The \$200 million figure does not include additional labor for new dispensing systems and compounding, or the added expense for delays and disruptions in patient care, said Blair Childs, senior vice president of public affairs at Premier.

There are multiple reasons for the shortages, according to Premier's analysis, but a major one is market consolidation. When the single supplier of a particular product has materials or manufacturing problems, no other manufacturers can take up the slack, Mr. Childs said.

Compounding the situation is the fact that many manufacturers, particularly of

generic drugs, have ceased making products deemed no longer profitable. And some distributors are buying up available supplies and instituting huge price increases, said Mike Alkire, president of Premier Purchasing Partners. He noted, for instance, that the diuretic furosemide has gone from \$1.21 to \$195 a vial.

Premier and many other stakeholders are supporting legislation introduced by Sen. Amy Klobuchar (D-Minn.), the Preserving Access to Life-Saving Medications Act (S. 296).

Among other things, her legislation would require a type of early-warning system from both manufacturers and the FDA. Drug makers would need to warn the FDA at least 6 months in advance of discontinuing a product or give immediate notification if there was an unanticipated event that could lead to a potential shortage.

## IN TYPE 2 DIABETES MELLITUS THERE COULD BE DANGER BELOW

Renal impairment is the leading microvascular complication associated with type 2 diabetes (over 40%), followed by retinopathy (28.5%) and neuropathy (19.4%) – it is important to recognize these complications as soon as possible<sup>1-4</sup>

- Microalbuminuria (albumin in the urine ≥30 mg/day or ≥20 µg/min) is the earliest clinical evidence of renal disease<sup>5</sup>
- Regular dilated eye examinations can be effective in detecting vision-threatening diabetic retinopathy<sup>6,7</sup>
- Because diabetic neuropathy may be asymptomatic in about 50% of patients, it is important to conduct a physical examination of lower extremities and feet annually<sup>6,8</sup>

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