Data Show Scourge of Hospital Infections

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Nearly 12,000 Pennsylvanians contracted infections during a hospital stay in 2004, costing an extra $2 billion in care and at least 1,500 preventable deaths, according to state figures released yesterday that officials say represent a conservative measure of one of the deadliest problems in modern medicine.

As the first state to collect data on hospital-acquired infections, Pennsylvania has put hard numbers on a troubling phenomenon that until now has only been estimated. Even so, the true infection rate and cost is probably much higher, the report's authors said, because of underreporting by many hospitals. The actual tally could be as high as 115,000 infections, based on billing claims the hospitals submitted to insurers, the report said.

"Pennsylvania is 4 percent of the population, which means you may have an additional 100 people dying per day" nationwide because of hospital-acquired infections, said Marc P. Volavka, executive director of the Pennsylvania Health Care Cost Containment Council, the agency that issued the report. "That comes to an additional $50 billion" in medical charges in the United States annually, he said.

As health care spending has skyrocketed, employers, which often pay the bills, have begun pressuring hospitals to work to reduce a variety of mistakes -- from incorrect medications to avoidable infections -- to improve care and reduce costs. As part of that effort, Pennsylvania began last year to require every acute care hospital to report the number of infections contracted in the hospital in four major categories: surgical, bloodstream, pneumonia and urinary tract.

The mortality rate was highest -- 32 percent -- for patients who developed pneumonia while using a ventilator. The most common were urinary tract infections transmitted to patients using a catheter. The average cost to treat a Pennsylvania hospital patient who developed an infection was $29,000, compared with $8,300 for those who did not, the report found.

"Each quarter, the number of reported infections went up, and that trend we believe will continue in 2005 as more and more hospitals realize they need to come into compliance," Volavka said.

Nationally, the Centers for Disease Control and Prevention in Atlanta has estimated that as many as 2 million infections are acquired in hospitals each year, resulting in 90,000 deaths, said Denise Cardo, director of the Division of Healthcare Quality Promotion.

"This is terrible and this is not new," she said. "There are many more things we need to do in terms of preventing those infections, not just counting them."

Hospital executives cautioned that they are still working out the kinks in the data collection, and stressed that many efforts are underway to reduce preventable infections and other errors.
"Can we do better? Absolutely," said Elliot J. Sussman, president and chief executive of Lehigh Valley Hospital and Health Network in Allentown, Pa. "And this report can be a stimulus to do so."

Sussman, who has been a leader in the safety movement, said it is "ridiculous" to read that 16 hospitals reported not a single infection.

In Seattle, Michael Westley, medical director of the critical care unit at Virginia Mason Medical Center, is leading an effort to reduce ventilator-associated pneumonia cases through simple steps such as keeping the patient's head elevated and ensuring the patient breathes independently for at least a few minutes each day.

"If you do those things and you do them every day, the experience has been the numbers of those infections go down," he said. "While our hospitals in general are safe, they could be even safer by routinely employing low-tech interventions."

Westley and other experts say the simplest remedy is hand-washing. Another common but preventable risk is caused by shaving an area prior to surgery, a procedure that creates abrasions that can become easily infected. The preferred technique is clipping hair.

In Pennsylvania, state officials and industry executives haggled over the numbers, particularly the report's estimate that the tally of hospital-acquired infections may be as high as 115,000.

"We think that's remarkably high," said Carolyn F. Scanlan, head of the Hospital and Healthsystem Association of Pennsylvania. She said many of the infections that hospitals billed for may have been acquired before admission.

Volavka, however, said his staff, working with infectious-disease specialists, screened out the infections most likely to have occurred before a patient arrived at the hospital.

Either the true number of hospital-acquired infections is much higher than 12,000 or hospitals are charging for infections that do not exist, said Kitty Gallagher, president of the Lehigh Valley Business Conference on Health Care and a member of the state commission. "Either way you look at it, the employers are paying for these infections."

Several other states, including Virginia, have passed laws requiring similar reporting by hospitals. Thirty states, including Maryland, are considering similar legislation but do not currently collect data on hospital-acquired infections.

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