

## Champion of Change

## Richard Shannon, MD, Chief of Medicine at Allegheny General Hospital, Pittsburgh, Pennsylvania

Each year, two million patients are infected by bacteria passed to them by health care workers. Close to 100,000 die as a result. Conventional medical wisdom has always held that these infections are largely inevitable. Rarely are they classified as errors. But in Pittsburgh, Pennsylvania, Dr. Richard Shannon, Chief of Medicine at Allegheny General Hospital, has learned to see things differently. Working in two intensive care units, Dr. Shannon proved the skeptics wrong by nearly eliminating infections caused by central lines.

"Our success took awhile for people to appreciate and I would say that we did not have immediate buy-in. This was due partly to historical excuses that our patients are different and systems won't work. And part of the problem has been a lack of a compelling demand on the part of the management team to have everyone strive for zero hospital infections," said Shannon.

Like his colleagues, Dr. Shannon used to believe that little could be done about hospital-acquired infections. That all changed when he met former Alcoa CEO Paul O'Neill who had signed on to lead the Pittsburgh Regional Health Initiative, a ground-breaking endeavor in which all the hospitals in Pittsburgh agreed to work together to make the region home to the safest health care in the nation. O'Neill preached two core messages: perfection is possible if you strive for it; and to achieve excellence, health care rivals will have to work openly with one another. O'Neill's message clearly resonated with Dr. Shannon, but convincing the leaders of his hospital, Allegheny General, to participate in the initiative was another matter.

"When I started talking about eliminating central line infections as part of the goal of eliminating infections throughout the region, people thought I was a dreamer. For years everyone had simply accepted that this was a risk and nothing could be done. When you look at the cost to the patient it just didn't seem acceptable to me."

However, when the business case was examined and the potential financial impact understood, the hospital's leadership became very interested in seeing that a concerted effort be made in all of the intensive care units (ICU). Slowly, there was

a steady decline in central-line-associated bloodstream infections and Ventilator-Associated Pneumonia throughout all six ICUs.

"From the time we proclaimed our goal to the time people began to buy-in was about 15 months, and it took nearly two years before we began to see the results," says Dr. Shannon.

The effort took root, and across the region infection rates have been cut. But success has been limited to isolated pockets, hardly the wholesale transformation O'Neill signed on to lead. After six years, O'Neill has walked away from the effort, frustrated with hospitals unable to put aside their marketplace rivalries in order to stop needless deaths and injuries.

But bolstered by the success he experienced at Allegheny General, Dr. Shannon decided to join a new effort to make Pittsburgh the first region in the nation to eliminate the most threatening infection of all, Methicillin Resistant Staphylococcus Aureus, or MRSA. MRSA is a mutant strain of staph bacteria that is extremely difficult to treat. It was created by the overuse of antibiotics. It is an exploding and deadly epidemic.

"I don't think that most U.S. citizens realize the potential impact of this infection, but unless we get our hands around it pretty soon it will become apart of the parlance of everyday life," says Dr. Shannon.

If this latest collaborative effort is to be judged successful in eliminating MRSA several things will have to occur. "We must be able to demonstrate the efficacy of both MRSA surveillance and how that knowledge leads to better adherence to barrier precautions, which in turn leads to reduction in infections," says Shannon. "If we can make this happen in 15 different hospitals here, we will have created a model for the rest of the country. That's our next goal."