

MRSA

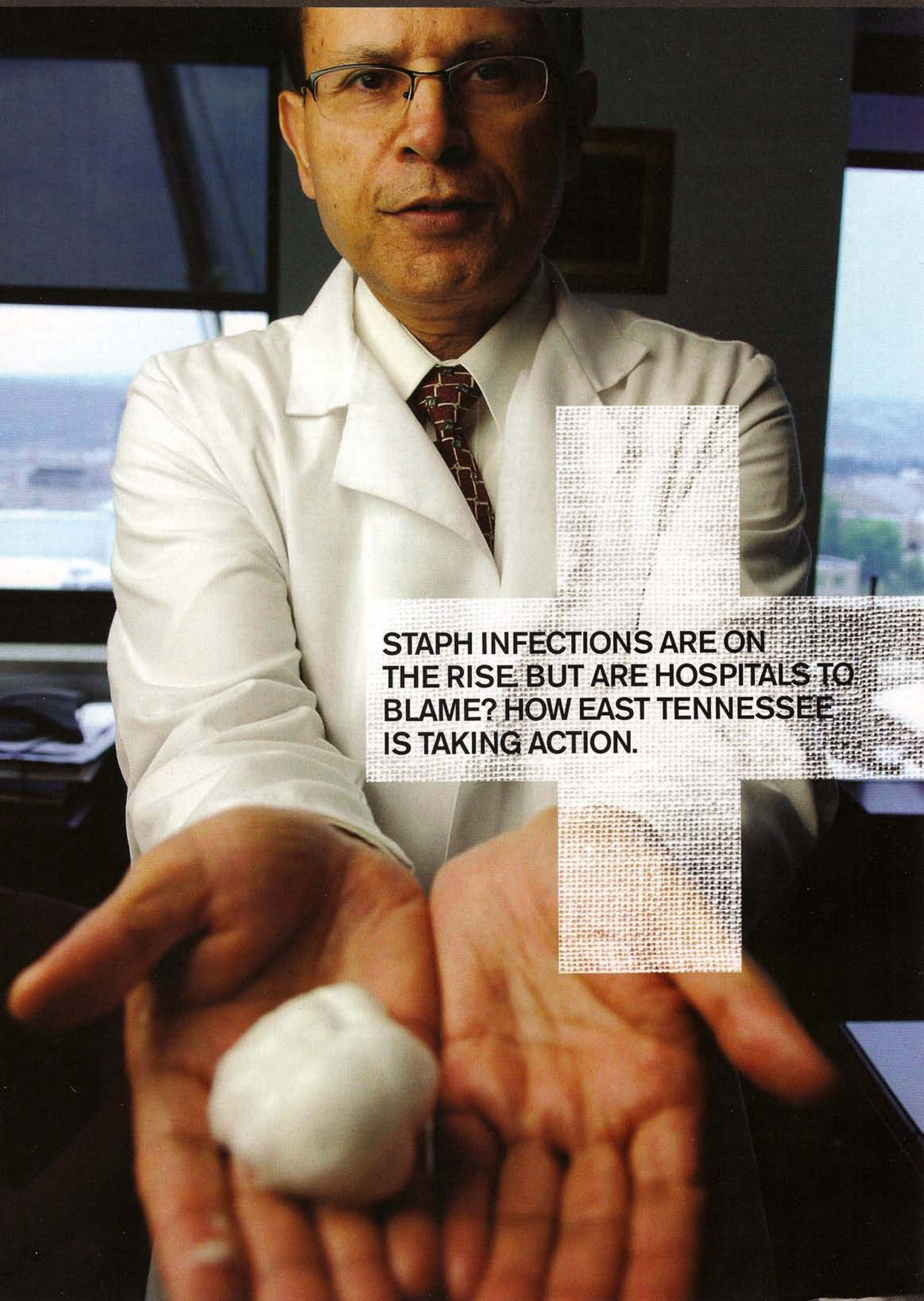
BIGGER THAN

AIDS?

BY J. BRANDON LOWE

PHOTOGRAPHY JEFF SWENSEN

A REAL STORY.
A REAL PROBLEM.
A REAL SOLUTION.



STAPH INFECTIONS ARE ON THE RISE. BUT ARE HOSPITALS TO BLAME? HOW EAST TENNESSEE IS TAKING ACTION.

AS FRANK L. FLYNN, JR., LAY IN HOSPITAL and long-term healthcare beds for the remaining seven months of his life, many people would come in and out of that life. Nurses, doctors, friends, family, and a few others in between. One nurse told Judy, Frank's lovely and caring wife, that she had never seen one patient get so many visitors in coats and ties. All of those people, for one reason or another, wanted something from Frank. The nurses wanted his blood pressure, the doctors wanted to hear his lungs. His family and friends wanted the greatest man they knew back on his feet and a part of their lives.



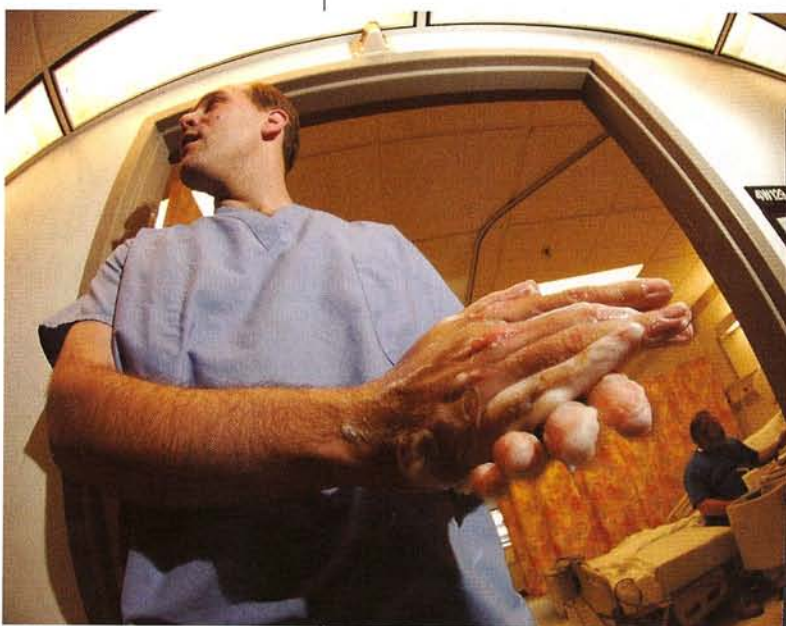
“PEOPLE FORGET THAT THE HUMAN BODY IS NOT STERILE WE HAVE BACTERIA ON US ALL OF THE TIME”

But Judy never got to see her husband walk again, nor did she get to see his lust for life restored. Without warning, her dear Frank had been struck with a fatal staph infection.

Many healthcare workers will tell you that staph infections have been around as long as there have been hospitals. They can cause all sorts of problems, from a small boil to a rare brain abscess. For the most part, infections have been considered one of a number of risks a patient assumes when seeking treatment in a medical facility. The reason hospitals are such a breeding ground for staph is the simple fact that the hospital is crawling with the bacteria. Methicillin-resistant staphylococcus aureus (MRSA, or “mersa”) is already on most of us, and can be spread through simple contact, but is especially dangerous around open wounds. “If you swabbed everyone who walked into a hospital, close to 50% would be colonized with MRSA,” explains Caroline Graber, Infection Control Director at the East Tennessee Children’s Hospital. “People forget that the human body is not sterile. We have bacteria on us all of the time.” Hospitals can also be dangerous places because MRSA targets vulnerable patients seeking medical attention.

In general, at-risk patients are those with weakened immune systems. This category can include any number of hospital patients, but particularly at-risk are those who have been restricted to their hospital bed. Skin infections are the most common hospital-based infec-

tions, in part because invasive devices associated with long-term care, such as feeding tubes, are susceptible to infection. While the current attention being paid in the media to MRSA often centers around hospital-acquired infections, the real revelation has come due to a large number of cases being diagnosed in the community. More people outside of hospital and long-term care facilities are becoming colonized. Nosocomial Infections, hospital-acquired, flesh eating bacteria, have been around since the 1970s, but it is important to note that staph infections are now the most common infection seen in emergency rooms. Prominent



risk factors for MRSA infections in the hospital include surgery, prior antibiotic therapy, admission to intensive care, exposure to a MRSA-colonized patient or healthcare worker, being in the hospital for more than 48 hours, and having an indwelling catheter or other medical device that goes through the skin. Hospitals do what they can to prevent the spread of staph, but it is tough to fight something that is already present on most people. Short of testing every person that steps foot in the hospital, the staff must rely on such things as equipment sterilization and hand hygiene.

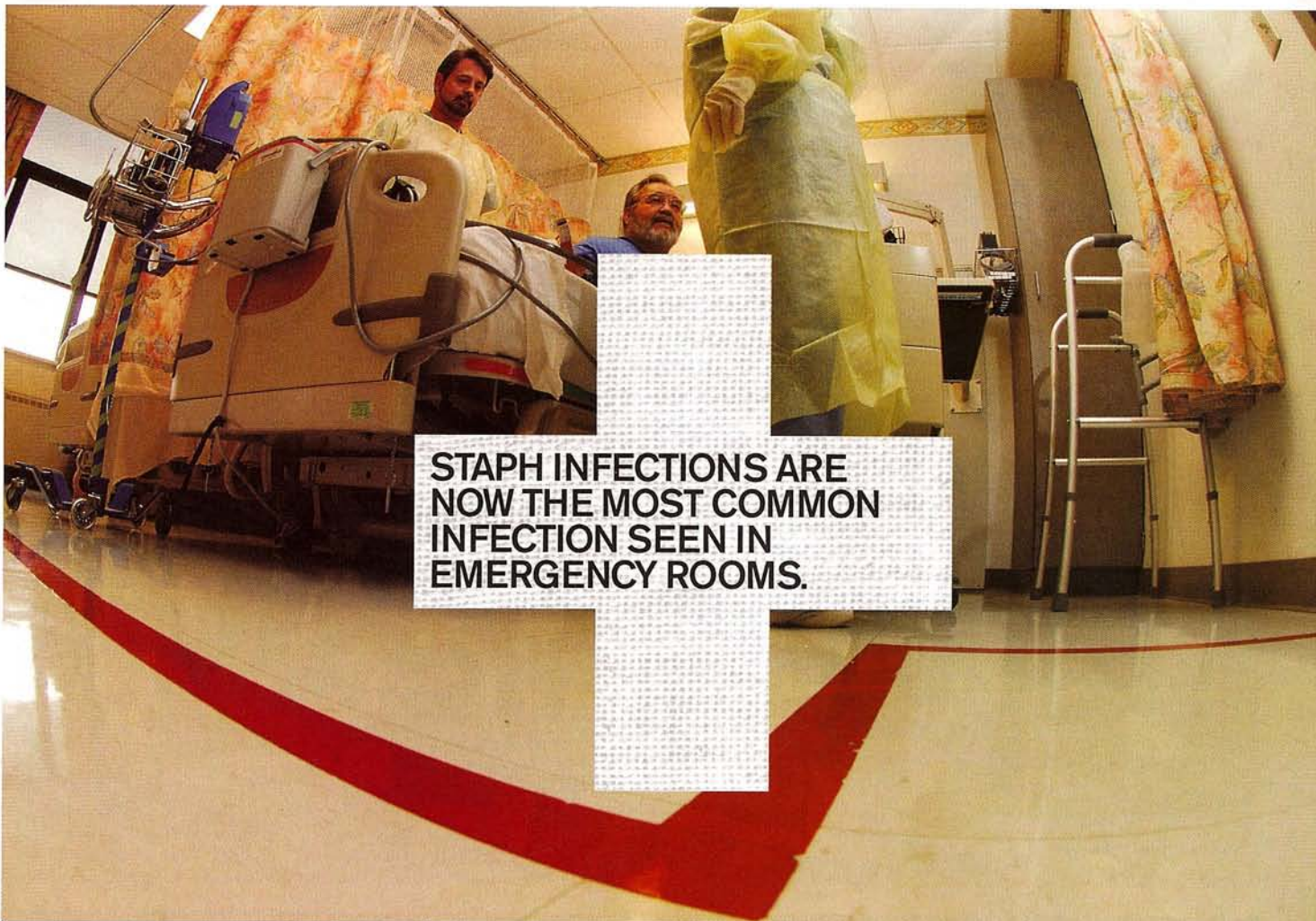
Judy and Frank Flynn discussed their apprehensions prior to his heart surgery. In relatively

good health, Frank stepped into a local hospital on August 18, 2004, and assumed the same surgical risks assumed by all hospital patients, including that of a staph infection. “You can paint staph on your skin and as long as you don’t have a cut, you’ll be fine,” Caroline explains. After six hours of surgery, doctors said that Frank had made it through the surgery fine. For three days he rested in the hospital, seemingly making a healthy recovery. Then, on day four, Judy got a call from the hospital saying they had moved Frank to the intensive care unit (I.C.U.). Everything went downhill from there. Frank, Judy was told, had contracted a staph infection. “Frank was told before this surgery that this could happen,” Judy recalls. “We knew that, but the truth is, you just don’t think about those things.”

But, for Judy, what was worse than the shock was not knowing what to do next. For the next seven months, the number of people who passed through the various facilities where Frank was located was hard to imagine. When Frank was in the I.C.U., Judy couldn’t believe how the hospital staff let people just come and go, with the only protection being a hand sanitizer dispenser near the door of the room. Frank’s condition was up and down like a yo-yo. He went back and forth, all the while with no guidance,

and no understanding, of what MRSA truly was. Frank Flynn was the victim of a hospital error, and, on March 9, 2005, that error took his life at the age of 65.

It seems we have been inundated with media coverage of staph infections. Indeed, this magazine article will become one of hundreds in our national media. The reason is simple: For the past 50 years, the bacteria has been getting stronger, building defenses against the antibiotics commonly used to defeat it. That shift has birthed a new single-celled organism, often referred to as a “superbug.” These bacteria multiply and aggressively attack the body.



STAPH INFECTIONS ARE NOW THE MOST COMMON INFECTION SEEN IN EMERGENCY ROOMS.

Hospital infections in general kill around 100,000 people per year, with MRSA victims accounting for about 19,000 of the fatalities. With numbers like that it is understandable that many media outlets have turned to the superbug for a story. The onslaught of reports has brought infectious disease center stage in a way not seen since AIDS. Just this past January, the New York Times reported that a new flesh-eating strand of MRSA was moving through the gay communities in San Francisco and Boston.

It is obvious that infection rates are going up. Hospitals didn't get dirty all of the sudden, if anything, they have gotten cleaner. The difference between AIDS and MRSA is that the prevention steps for MRSA are a little less obvious. With AIDS, we were told to wear condoms and avoid sharing bodily fluids.

What has truly put MRSA on the map is the fact that staph infections have spread to the community. No longer are hospitals the superbug's lone breeding ground. A patient with no medical history of MRSA can still be colonized. Community MRSA has become an especially disconcerting issue for parents. Sports teams are a particular worry. Young men and women crowd into locker rooms and often share things like towels and razors. This sort of impersonal contact can create a breeding ground for MRSA. Many schools and fitness centers emphasize personal hygiene. Workout facilities like "The Rush" have also engaged in

aggressive campaigns to raise awareness about staph by encouraging the use of hand sanitizer during workouts.

When MRSA attacks our kids, it puts the issue squarely in the public eye. Those in our population with weakened immune systems, such as elderly patients with underlying illnesses, and patients who have had surgery, are most vulnerable. Alarmingly, in 1998, National Geographic health officials began seeing a new MRSA strain in people with no ties to healthcare settings.

Outbreaks began to occur in places like prisons and high school gyms. "It used to only be seen if you were in long-term care, but now we see it all over," explains Amanda Jolly of Baptist Hospital. The shift in public consciousness related to staph infections has brought attention to the need for increased public reporting of infection rates for hospitals. Tennessee currently requires hospitals to report all infectious diseases acquired while patients are in the hospital. These quarterly reports are made to the Department of Health, and then made available to the public. But, there is an inherent problem with legislation that calls for public reporting: It is misleading. The same practices used to prevent the infections will decrease MRSA.

East Tennessee is setting the benchmark statewide in the fight to prevent the spread of MRSA. Local hospitals are on a unique mission. Just this February, area hospitals teamed up

Treating Staph

The route for any serious illness or infection should always start with your doctor. For someone with a community born staph infection, the healing process usually starts with a broad spectrum antibiotic, which is designed to prevent against worse case scenarios. Before the antibiotic is taken, your doctor will culture a sample of the infected area to have in case the antibiotic doesn't work. From there, you are in for a series of hospital trips that in which several day stays could become the norm. Many people struggle with staph infections for great periods of time.

with the Knoxville Academy of Medicine (KAM) and the Knox County Health Department to seek a community solution to fighting the increase in hospital-acquired infections. "The community approach here is unique," explains Sonnie Campbell of KAM. "Especially when you consider the number of brands that are competing here." Somehow, the number of at-risk patients must be considered, especially when old institutions already designed for the removal are already in place. We need only look down the road to Blount County to see a community whose existing infectious disease staff have done what it takes to cut the number of staph infections down; only possible because they could pinpoint a specific group of at-risk patients. The question is, can the local healthcare community replicate the successes experienced at Blount Memorial? National guidelines published by the Center for Disease Control (CDC) say that each hospital should do its own risk assessment.

Examples of new policies include wearing a mask, gloves and gown each time a healthcare worker enters the room of an at-risk patient. This policy, for example, was not in place during Frank Flynn's ordeal. Several studies about hand washing in healthcare facilities show medical students among the best, but doctors as some of the worst. Sherry Hillis of Blount Memorial hospital is also emphasizing the need to target at-risk populations.

While many of the at-risk populations overlap at all hospitals, it is true that some facilities see different numbers of at-risk patients from various populations. "I really hope we get the opportunity, through this group, to determine by facility where the high risk patients are," explains Hillis. "Each facility has a different high risk population and the facility needs to be able to identify where that high risk is." Her point calls to mind the misleading nature of public reporting. Because some facilities will naturally have higher numbers of at-risk patients, their number of infections may be disproportionate.

Prevention depends on protection. No longer do healthcare workers depend on soap, water and a pair of rubber gloves. When dealing with an at-risk patient, they go to great lengths to ensure the safety of both themselves and the patients. Some hospitals use transporters as spies to ensure that staff are following proper hand

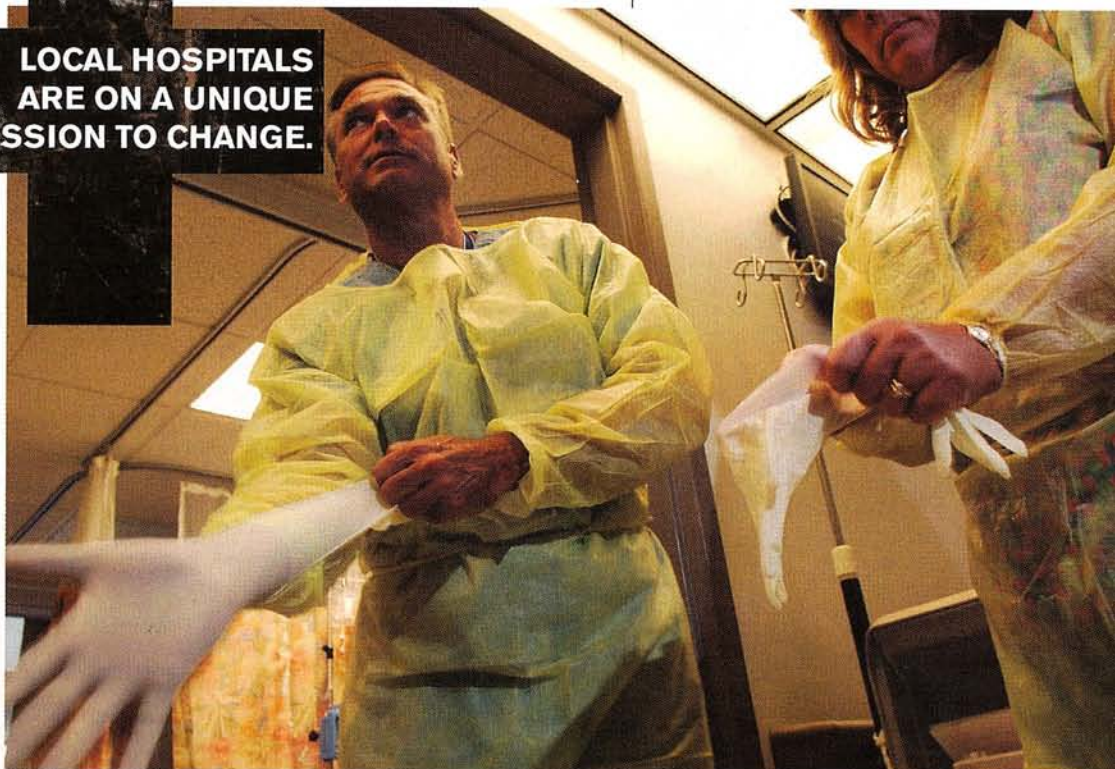
washing procedures. There is a basic assumption in this enforcement that physicians and nurses are guilty until proven innocent. Hospitals are also encouraging patients to call out workers that are showing suspect adherence to hand washing procedures.

Sandra Marshall, Senior Vice President at Covenant Health of Knoxville, makes an interesting point. The burden of accountability lies, at least to some extent, with visitors and patients as well. Hospitals are big, complicated places and you can't make them completely sterile. Truth be told, fighting MRSA doesn't necessarily require that of hospitals. In fact, the most fundamental change needed requires hospitals to get back to basics regarding hand

hygiene. Infection prevention includes hand hygiene: proper cleaning of equipment, rooms, and facilities; and the use of barriers such as gloves and gowns when appropriate. Physicians, nurses, other healthcare providers and support staff receive ongoing education in the area of infection prevention, and respond quickly to new educational information and other directives from public health authorities and the CDC.

"We expect them to speak," says Marshall. "If you are coming to visit someone and your immune system is weak, you could transmit a staph infection." The primary burden, however, is still clearly with the hospitals. The Bush Administration, who informed the medical community that beginning in October of 2008, financial

LOCAL HOSPITALS ARE ON A UNIQUE MISSION TO CHANGE.



MRSA: The Anti-Antibiotic

The over prescribing of antibiotics is the main reason MRSA is so difficult to treat. Viruses should not be treated with antibiotics. The only infections that should be treated with antibiotics are bacterial infections, excluding colds, flu, most coughs, bronchitis and sore throats, excluding strep throat.

Tips on Antibiotic Use

1. Don't save antibiotics for future sickness. Throw them out.
2. Children receive more antibiotic treatment than anyone else. According to the CDC, doctors are more likely to give antibiotics to parents if they get the impression the parents expect them.
3. Common triple antibiotics DO NOT prevent MRSA infections. Try StaphAseptic, a similar ointment proven to kill 99.9% of germs.

responsibility for hospital-acquired infections would fall to the hospital, not Medicare or the patient, illustrated the point recently. Experts say that private insurers will also likely adopt a similar policy. Such a policy would also mean that the financial burden of the hospital-acquired infections would stop being that of the taxpayer.

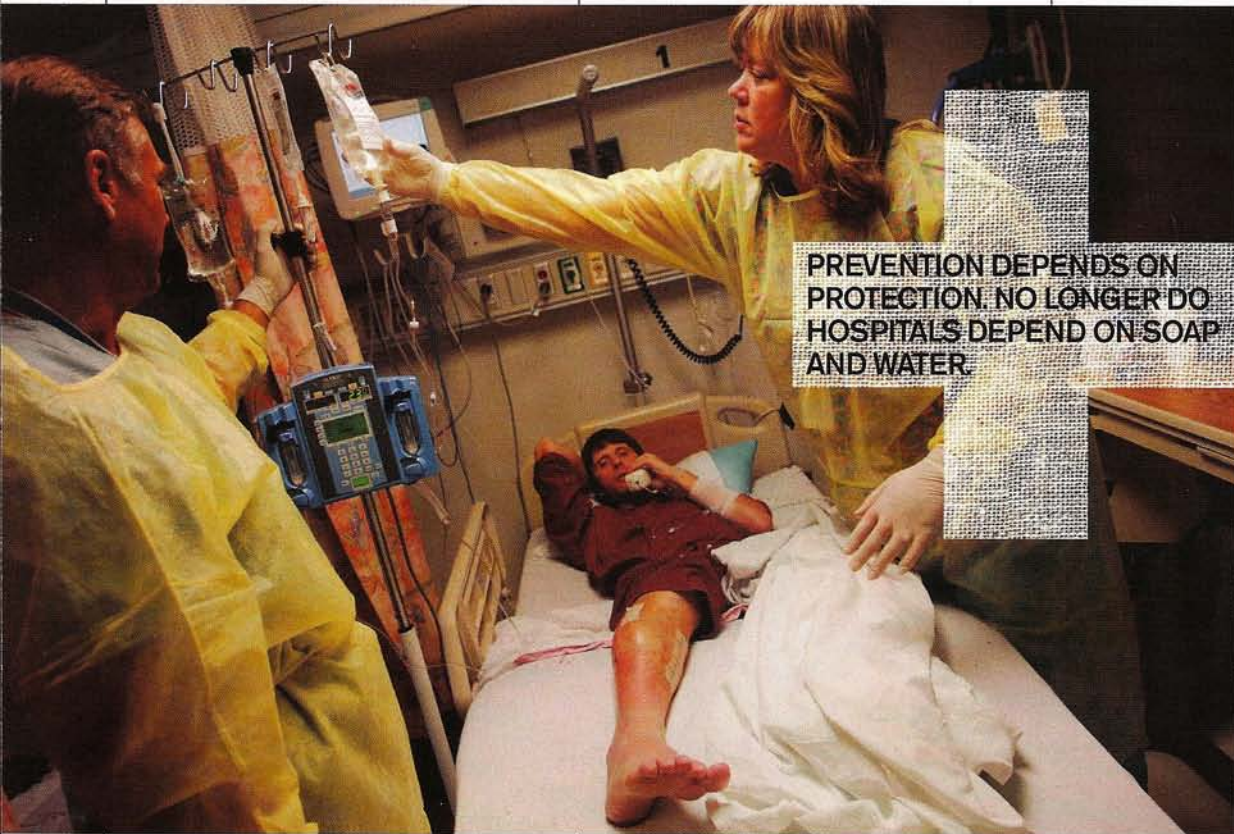
Perhaps as sad as Frank's death was tragic, is that throughout the entire process no one was there to shepherd Frank and his family through the process. It was as if he'd been put through a conveyor belt of specialists, nurses and unidentified doctors. "We were just kind of lost people out there," explains Judy. "We were just someone else in the hospital. Ignored."

Judy Flynn is certainly aware that the infection that took her husband's life has leaped into the public consciousness. Though as many as 20,000 people die from hospital-acquired staph infections every year, Judy's agony can bring you right back to earth, a focused look at a broad and complicated issue. The word epidemic doesn't do Frank's story justice. It doesn't tell you of the pain Judy suffered watching her husband wither. It doesn't expose the painful steps involved in such an ordeal, like how Judy went to the funeral home to make arrangements a week before Frank died. Or, how for seven months her once vibrant and active husband never left his hospital bed.

From the day Frank entered the hospital for

destroyed his immune system. An infection had taken his life.

The ability of the local hospitals to put aside competition in favor of a community solution is something that Knoxville should be proud of. The sharing of information will lead to a decrease in all hospital-acquired infections. AIDS was supposed to be the end all, be all, but information has been a powerful weapon in stopping the spread of HIV. Public discourse is what is needed for MRSA, too. Staph infections kill us when we should least expect them to. To beat them, we have to think clearly, and live cleanly.



PREVENTION DEPENDS ON PROTECTION. NO LONGER DO HOSPITALS DEPEND ON SOAP AND WATER.

EXTRA CAUTION

Some examples of new hospital policies include wearing a mask, gloves and gown each time a health care worker enters the room of an at-risk patient. Patients that have been confined to a bed, especially those with an open wound from surgery, are more likely to contract a staph infection. Many health care facilities also mark the medical charts of patients that have been known to have been colonized with MRSA with a special tag. The tag serves as an alert to doctors and nurses that the patient is at risk and that extra protection needs to be used when the patient is receiving treatment.

Even the manner in which the doctor broke the news to Frank and Judy was haphazard and unassuming. "The doctor didn't talk much," she recalls. "He was just checking Frank out and said, 'It's staph.' Then he walked immediately over to the sink and washed his hands. After that, we never saw him again." Yet, throughout these impersonal interactions, which became common over the seven agonizing months of the ordeal, Frank remained as humble as ever. He was the dignified man that his friends and family looked up to, and that his wife loved and adored. Even the lawyer in Frank remained dormant. His condition was the result of a breach in protocol, and finger pointing would have been useless. All Frank and Judy really wanted was for someone to take them by the hand and lead them through the process, a hope that was never fulfilled.

Nearly four years after her husband's death,

his heart surgery, he never once left a medical facility; instead bouncing between different Knoxville hospitals and long-term care facilities. Judy would tell you she doesn't want to make Frank a big deal. But he was a big deal. Frank L. Flynn, Jr., was a gentleman's gentleman. As a lawyer, he was a bit uncommon. Those close to Frank say he cared more about people than he did the law. He would, for example, try to help a couple seeking divorce repair their marriage. He isn't just a staph statistic. His story graphically reveals how the advancement of these terrible infections tear lives apart. He went into the hospital seeking help, and he got it. And yet, the same treatment that bettered his heart,



PREVENTION *Determining whether or not a patient has been colonized with MRSA is a critical and cost effective way to manage infection rates. The easiest way to test a person for MRSA is to take a swab from their inner nose.*