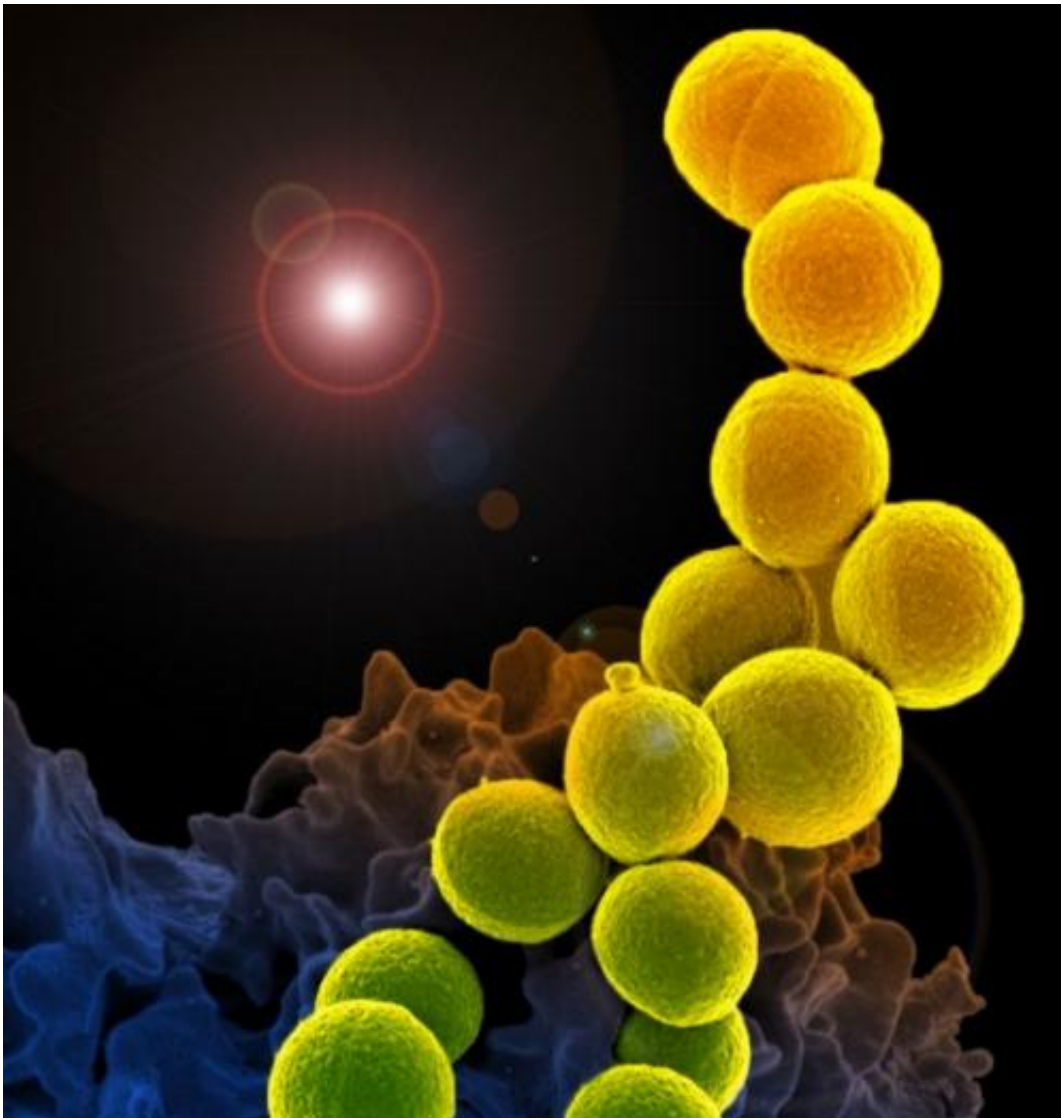


Universal screening for MRSA may be too costly

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A colorized scanning electron micrograph of a white blood cell eating an antibiotic resistant strain of *Staphylococcus aureus* bacteria, commonly known as MRSA. Credit: National Institute of Allergy and Infectious Diseases (NIAID)

Numerous experts and policy makers have called for hospitals to screen patients for methicillin-resistant *Staphylococcus aureus* (MRSA) infections and isolate anyone testing positive to prevent the spread of these so-called "Superbugs" in healthcare settings. Several states have enacted laws requiring patients be screened for MRSA upon admission.

Two new abstracts, scheduled for presentation on Friday at IDWeek, the annual scientific meeting for infectious disease specialists, found universal MRSA screening and isolation of high-risk patients will help prevent MRSA infections but may be too economically burdensome for an individual hospital to adopt.

"Screening for MRSA is becoming an accepted weapon against the spread of these antibiotic-resistant infections, but little thought has been given to how a hospital would actually implement such a program," said James A. McKinnell, MD, a Los Angeles Biomedical Research Institute (LA BioMed) lead researcher who presented the findings today at IDWeek. "Our studies found that universal MRSA screening and isolation would prevent hospital-acquired MRSA infections, but that such a program would be very expensive for an individual hospital to launch. Our results may provide some explanation why this approach has not been adopted by all hospitals. We recommend consideration of specific financial incentives to hospitals to support [infection prevention](#) and further examination of the costs and benefits of other strategies, including the improvement of environmental cleaning and the use of the antimicrobial disinfectant, chlorhexidine, to eliminate MRSA bacteria."

The researchers examined the cost of a hospital infection prevention strategy that tested all patients for MRSA and then took precautions to avoid contact with potential carriers. The researchers found that using the traditional method of testing for MRSA in the nose, or nares

surveillance, and then isolating MRSA carriers prevented nearly three MRSA infections. But it cost the hospital \$103,000 per 10,000 hospital admissions. More extensive screening, through the use of other testing methods, which included PCR-based screening, prevented more infections, but increased the cost.

The researchers also evaluated the cost of a hospital infection prevention strategy that targeted high-risk patients. Again, the researchers found the costs of the program exceeded the potential savings to the hospital that would be generated by preventing MRSA infections.

They found nares screening and isolation of high-risk patients prevented fewer than one infection (0.6) per 1,000 high-risk admissions to the hospital and created a financial loss of \$36,899 for the hospitals. Using more extensive MRSA screening – which included nares, pharynx and inguinal folds screening – prevented slightly more infections (0.8 infections per 1,000 high-risk admissions), according to the study. But the researchers reported an even larger financial loss of \$51,478 with the more extensive [screening](#).

"Although more extensive MRSA testing and isolation could prevent hospital-acquired MRSA infections, we found the cost of such a program far exceeds any savings to the hospital. Our results are surprising because we know that preventing MRSA infections is better for the healthcare system as a whole, but the rewards of this effort do not seem to come back to the [hospital](#) in a meaningful way." said Dr. McKinnell. "In today's constrained healthcare environment, hospitals must either be given better financial incentives or better and more cost-effective [infection](#) prevention strategies to provide the greatest benefit to the people they serve."

Provided by Los Angeles Biomedical Research Institute at Harbor

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