As infections that patients pick up in hospitals grow increasingly resistant to antibiotics, facilities are turning to more aggressive measures, including a "search and destroy" approach borrowed from Europe.

Each year staph infections and other powerful bugs that thrive in hospitals kill 90,000 people and result in $4.5 billion in excess costs, according to the Centers for Disease Control and Prevention. A study published earlier this month in the American Journal of Medical Quality found hospitals lost $27,000 for each patient who gets a preventable infection there. Insurers reimburse many hospital stays by the diagnosis rather than per day, and payment drops off the longer patients stay in the hospital.

"A lot of hospital administrators don't realize how expensive these infections are," said Lance Peterson, head of epidemiology at Evanston Northwestern Hospital, located outside Chicago.

The costs haven't escaped notice of the government and private insurers that collectively fund most of the $2 trillion U.S. health-care tab. Antibiotic resistant strains, or "super bugs," now account for about two-thirds of infections associated with health care. Vancomycin is most often used to treat the stubborn infections, but some have become resistant to the antibiotic.

Betsy McCaughey, founder of the nonprofit Committee to Reduce Infection Deaths, said most evidence showed that three steps could dramatically cut infection deaths in hospitals. But she said most U.S. facilities weren't implementing the practices: meticulous hand-washing between procedures, cleaning equipment between patient use, and identifying infected people before they enter the hospital. "About 90% of patients treated in a hospital know well ahead of time they will be admitted, and can be tested in a doctor's office a week before," Ms. McCaughey said.

The CDC suggests that hospitals screen high-risk patients, such as those with weak immune systems, but doesn't recommend testing all patients for infection. That leaves hospitals to experiment with myriad approaches, resulting in a lack of consistency, experts said. In fact, big for-profit chains like Tenet Healthcare Corp. and Triad Hospitals Inc. leave policies on handling infections up to local administrators.
Evanston Northwestern, affiliated with Northwestern University and part of a small local network, is one of a handful of U.S. hospitals to implement "universal surveillance" -- testing every patient that walks in the door for an infection. When it gets a positive result, it isolates the patient, administers a powerful antibiotic and requires all people going into the room to wear gowns and gloves.

The hospital's search-and-destroy approach steals a page from some European countries like the Netherlands, where hospital-acquired infections are rare.

A key component of Evanston's effort is Becton, Dickinson & Co.'s new gene-based test, which gives results in a few hours, compared with a few days with an older product. About 160 of the 5,000 U.S. hospitals use the test, up from 60 a few months ago.

But some experts question whether the rapid gene-based test is more cost-effective than the older, and much cheaper, culture-based version that takes a few days to interpret.