

Patients with skin infections fail to complete antibiotics, leading to poor outcomes

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In the first study of its kind, researchers found patients with *S. aureus* skin and soft tissue infections took, on average, just 57% of their prescribed antibiotic doses after leaving the hospital, resulting in nearly half of them getting a new infection or needing additional treatment for the existing skin infection.

The study, published in the peer-reviewed journal, *Antimicrobial Agents and Chemotherapy*, measured antibiotic dosing by using medication containers fitted with electronic caps that reported when the patient opened the antibiotic container. By using this measurement system, the researchers found a large discrepancy in patient reports and the electronic measurement. Patients reported taking, on average, 96% of their medication, or nearly twice the 57% reported by the electronic caps.

"We have seen similar differences and similar failures to take all the prescribed medications in many other conditions, including hypertension, diabetes and HIV," said Loren G. Miller, MD, MPH, an LA BioMed lead researcher and corresponding author of the study. "But these failures have never been studied in [skin](#) infections or linked with clinical outcomes. These findings suggest that we need better methods to have [patients](#) receive antibiotics for skin infections, such as counseling them on the importance of adhering to the medication dosing or by using newer antibiotics that require only once-weekly dosing."

Researchers followed 188 patients who had been hospitalized and suffered *S. aureus* associated skin and [soft tissue infections](#). Of those, the researchers were able to obtain complete records on 87. Of the 87 patients, 40 needed additional treatment within 30 days of leaving the hospital: They had a new skin [infection](#), required incision and drainage of their infections or new [antibiotics](#).

The researchers also found higher rates of non-

adherence to antibiotic regimens among patients who were prescribed more than one antibiotic after leaving the hospital, didn't see the same healthcare provider for follow-up visits or felt they didn't have a regular healthcare provider.

Provided by Los Angeles Biomedical Research Institute at Harbor

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