

# Hospitalized children benefit from antibiotic stewardship programs

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Hospitalized children go home sooner and are less likely to be readmitted when the hospital has an antibiotic stewardship program that's dedicated to controlling antibiotic prescriptions and treatment, according to a study being presented at IDWeek 2014. The study is the first to show the benefits of such programs on children's health.

Antibiotic stewardship programs are increasingly being used to manage how and when [antibiotics](#) are being prescribed in hospitals and other [health care facilities](#) across the country. Often led by epidemiologists or infectious diseases physicians, stewardship programs are designed to promote the appropriate use of antibiotics. Research shows up to half of antibiotics prescribed at hospitals are unnecessary or inappropriate, helping to foster the rise of antibiotic-resistant infections, which are difficult or impossible to treat.

"Studies have shown stewardship programs reduce antibiotic use and decrease the risk of [antibiotic resistance](#), but this is the first to demonstrate that these programs actually reduce length of stay and readmission in [children](#)," said Jason Newland, MD, lead author of the study and medical director of patient safety and systems reliability at Children's Mercy Hospital-Kansas City, Mo. "These findings reinforce the health benefits of antibiotic stewardship programs for some of our most vulnerable patients. It's clear that more hospitals should invest their resources in implementing such programs."

Over the course of the five-year study, the antibiotic stewardship program at Children's Mercy Hospital-Kansas City recommended that the prescribed antibiotic be discontinued or the dose or type of antibiotic be changed in 1,191 of 7,051 hospitalized children (17 percent) reviewed by the program. The child's physician had the option of accepting or rejecting the recommendation.

When the program's recommendations were

followed, the length of stay was shorter, and 30-day admissions were reduced among children who did not have complex chronic care issues, such as cerebral palsy or [congenital heart disease](#). The length of stay averaged 68 hours and there were no 30-day readmissions among children whose doctor followed the recommendation, while the length of stay averaged 82 hours and 3.5 percent were readmitted within 30 days among those whose doctor did not follow the recommendation.

The most common recommendation was to discontinue the antibiotic, because the antimicrobial stewardship program deemed it wasn't necessary. Those who continued the antibiotic remained in the hospital so they could be monitored.

"Skeptics say stopping the antibiotics and sending the kids home sooner will lead to more children being readmitted, but we didn't find that," said Dr. Newland. "What we found was that kids were being taken off unnecessary antibiotics sooner – and in a safe manner."

More than 2 million people are infected with antibiotic-resistant infections every year and 23,000 die, according to the Centers for Disease Control and Prevention (CDC).

Provided by Infectious Diseases Society of America

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