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Study: Residents not following antibiotic prescribing guidelines
by Melissa Jenco, News Content Editor

Nearly 75% of pediatric residents prescribed antibiotics for a viral infection, and many of them cited instructions from their superior, according to a new study.

The data about residents’ prescribing practices come as the health care community tries to use antibiotics more carefully to curb the growth of drug-resistant bacteria.

To see how well residents were following prescribing guidelines, researchers conducted a survey at Children’s National Medical Center and Nicklaus Children’s Hospital. The results are detailed in the study "Antibiotic Use by Pediatric Residents: Identifying Opportunities and Strategies for Antimicrobial Stewardship" (Shukla PJ, et al. Hosp Pediatr. Aug. 16, 2017, http://hosppeds.aappublications.org/content/early/2017/08/14/hpeds.2017-0059).

When asked about antibiotics for different infections, the 85 respondents indicated that they generally followed guidelines for otitis media and group A strep pharyngitis. However, they strayed when it came to treating community-acquired pneumonia, urinary tract infections and sinusitis.

About 75% of the residents had prescribed antibiotics to a patient with a viral illness. Of those, 63% were following orders from a superior, 21% said they were concerned about future bacterial infections and 16% said parental pressure led them to write the prescription.

When making decisions about antibiotics, 89% said their general pediatric inpatient attending is in the top three most influential sources of information, and more than half ranked these attendings as the No. 1 source. Most also included general pediatric outpatient attendings in the top three. Textbooks, lectures and journal articles were among the least influential.

"These findings illustrate the important role general pediatricians must play when designing and implementing antibiotic education programs and activities targeting residents,” authors wrote.

Residents also were asked about their use of antibiograms, which the authors described as "a periodic summary of antimicrobial susceptibilities of local bacteria, providing sensitivities of a given organism to certain antibiotics.”

About 3% of the residents said they use antibiograms very frequently, 54% sometimes use them, 25% never used one and 17% were not familiar with antibiograms or did not respond.

The authors called antibiograms an "essential tool."

"By educating clinicians on how to access, interpret, and apply this data to their patients and practice settings when selecting empiric antibiotic regimens, therapies can be optimized," they wrote.

The authors called for better integration of prescribing guidelines into residents’ training.

"The results should stimulate efforts to target education and empower all levels of providers in the use of evidence-based medicine practice guidelines in the care of children," they wrote. "System-based strategies should integrate all members of the pediatric team, especially general pediatricians and pediatric hospitalists, who play a major role in resident training and education."

A related Hospital Pediatrics article released today looks at implementing a pediatric antimicrobial stewardship program in a large health system. Visit http://hosppeds.aappublications.org/content/early/2017/08/14/hpeds.2016-0144.

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Resources

- Centers for Disease Control and Prevention pediatric antibiotic resources
- AAP clinical report "Principles of Judicious Antibiotic Prescribing for Upper Respiratory Tract Infections in Pediatrics"
- Information for parents about antibiotics from HealthyChildren.org