

Provider Feedback on Antibiotic Prescribing to Kentucky Medicaid Children

Through a State University Partnership contract, clinician researchers from University of Louisville Department of Pediatrics and Kentucky Medicaid are collaborating to distribute individualized provider feedback reports on antibiotic prescribing to KY Medicaid children. According to annual data from the CDC, Kentucky has one of the highest rates of outpatient antibiotic prescribing in the nation.¹ Provider feedback and peer comparison has been shown to be effective in decreasing unnecessary antibiotic prescribing.

Data source

Kentucky Medicaid claims data for children < 20 are the data source for this project. Using 2019 pharmacy claims, we identified individual providers by NPI. Providers were excluded if they wrote less than 12 antibiotic prescriptions to Medicaid children in 2019. Medical and pharmacy claims data from 2019 were utilized to create “baseline” individual prescribing reports. Antibiotic prescriptions were identified from pharmacy claims by AHFS class and NDCs. Associated diagnoses were linked to prescriptions using medical claims within 3 days prior to the antibiotic prescription. Provider type (general practitioner, pediatrician, nurse practitioner, etc.) for peer comparison was determined using Medicaid pharmacy claims data.

Antibiotic use outcomes

Cefdinir prescribing was selected as an outcome of interest after being identified as an over-used antibiotic in KY Medicaid children.² Cefdinir is not a first-line agent for pediatric infections according to evidence-based guidelines and has concerns related to efficacy and spectrum of coverage. Your **rate of cefdinir prescribing** was calculated as a percentage of all of your antibiotic prescriptions to children that were for cefdinir.

Inappropriate antibiotic prescribing is a term used to describe antibiotic prescriptions with associated diagnoses that do not typically require antibiotics for treatment. Inappropriate prescriptions were identified using a previously described,³ mutually exclusive classification scheme that uses all ICD-10 codes identified in a medical claim to assign diagnoses as “appropriate”, “potentially appropriate”, or “inappropriate” for an antibiotic. For example, diagnoses considered “inappropriate” for an antibiotic prescription include acute upper respiratory infection, acute bronchitis, and nonsuppurative otitis media. Examples of diagnoses classified as “potentially appropriate” include acute suppurative otitis media, acute pharyngitis not specified as streptococcal, and acute sinusitis. Finally, examples of common diagnoses classified as “appropriate” for antibiotic prescriptions include streptococcal pharyngitis and urinary tract infections. Your **rate of inappropriate prescribing** was calculated as the percentage of your antibiotic prescriptions to children that were only associated with “inappropriate” diagnoses.

Provider Reports

As part of this project, you will receive follow-up letters with individualized data on your antibiotic prescribing. This data will not be shared publicly or used to determine reimbursement. You are encouraged to personally evaluate and improve your antibiotic prescribing during this time. On the Kentucky Antibiotic Awareness website, uofl.edu/ky-antibiotic-awareness, there are resources available for providers and patients to assist you in promoting antibiotic awareness within your medical practice.

For more information, email KYAntibx@louisville.edu.

¹CDC, Outpatient antibiotic prescriptions, available at: <https://www.cdc.gov/antibiotic-use/data/report-2020.html>

²Wattles, et al. Cefdinir Use in the Kentucky Medicaid Population: A Priority for Outpatient Antimicrobial Stewardship. JPIDS. 2021 Mar 26;10(2):157-160.

³Inappropriate outpatient antibiotic use in children insured by Kentucky Medicaid. Infect Control Hosp Epidemiol. 2021 May 12:1-7.