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Characterization of Antibiotic Use for Acute Otitis Media in Pediatric Physician Practices

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PURPOSE

- The objective of this retrospective chart review is to report compliance in antibiotic prescribing for acute otitis media (AOM) based on current guidelines among the Lehigh Valley Physician Group (LVPG) pediatric practices.

BACKGROUND

- AOM is one of the most common infections affecting more than 50% of children by the age of 5 years
- Wide availability of antibiotic therapies to manage AOM may lead to unnecessarily broad therapy
- Compliance with current guidelines is necessary to limit antibiotic use
 - American Academy of Pediatrics (AAP) Clinical Practice Guidelines recommend high-dose amoxicillin as first-line treatment for AOM and additional beta-lactamase coverage if certain conditions are met
 - Alternative antibiotics for AOM include second- or third-generation cephalosporins
 - Patients with otitis media with effusion (OME) should not receive antibiotics
- Review of prescribing practices for AOM expands network's outpatient antimicrobial stewardship efforts
 - Pediatric practices will be provided feedback regarding compliance with current guidelines

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STUDY DESIGN

- Retrospective chart review of electronic medical records in LVPG pediatric physician practices
- Inclusion criteria
 - Age 6 months to 12 years observed or prescribed antibiotic treatment
 - Diagnosis of AOM or OME
- Exclusion criteria
 - Patients with underlying conditions that may alter the natural course of AOM including immunodeficiency or immunosuppressive therapy; tympanostomy tubes at the time of diagnosis; craniofacial abnormalities; cystic fibrosis; concomitant bacterial infections involving other sites or systemic bacterial infection; chronic otitis media; and AOM complicated by mastoiditis
- Primary objective
 - Report compliance with first and second line antibiotic regimens based on current AOM guidelines among pediatric physician practices
- Secondary objectives
 - Characterize first and second line antibiotic regimens for management of AOM
 - Evaluate the percentage of ceftriaxone prescribed in therapy as first line, second line, and third line in outpatient physician practices
 - Report compliance with observation only for OME
 - Evaluate differences in antibiotic prescribing between pediatric physician practices for AOM and OME

METHODS

- Office visits to LVPG pediatric practices between June 1, 2016 and May 31, 2018 will be reviewed
- Data to be collected includes:
 - Age, gender, weight, past episodes of AOM, antibiotic history in past 30 days, drug allergy history, exposure to day care
 - Office visit dates and location, provider name, diagnosis, availability of respiratory pathogen profile within one week of office visit
 - Antibiotic regimen prescribed: dose, route, frequency, duration
- Compliance will be reported as frequency of diagnoses treated according to AOM guidelines
 - Percentage of antibiotics prescribed as first and second line will be reported
 - Prescribed antibiotics will be further stratified by:
 - Location of practice
 - Seasonality of visit date (Summer, Fall, Winter, Spring)

DISCLOSURES

Authors of this presentation have nothing to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.

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