Acute Otitis Media: Treating with Antibiotics vs. Watchful Waiting

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INTRODUCTION

The prevalence of Acute Otitis Media (AOM) is very common among the pediatric population and there is an overwhelming abundance of information and controversy on what the best course of treatment should be for patients who present with signs and symptoms. AOM is the most common reason for giving antibiotics to children and accounts for 24% of all pediatric antibiotic prescriptions and an estimated 8.7 million prescriptions yearly (Frost et al., 2020). "It is estimated that approximately 50% of children will develop at least one episode of AOM in their first year of life" making it a priority candidate for intervention (Kono et al., 2021). Having consistency and universal guidelines that pertain to treating AOM is essential for all providers to help curb the crisis of the misuse and overuse of antibiotics.

RESEARCH PROBLEM

This proposed topic will introduce readers to a new perspective on whether oral antibiotics play an essential role in reducing symptoms of AOM or if healthcare providers (HCPs) are overprescribing medication for AOM, leading to children developing antibiotic resistance.

RESEARCH PURPOSE

This purpose of this research is to introduce readers to a new perspective on whether oral antibiotics play an essential role in reducing symptoms of AOM or if healthcare providers (HCPs) are overprescribing medication for AOM, leading to children developing antibiotic resistance. This research is not only relevant for Family Nurse Practitioners (FNPs) but other practicing healthcare providers (HCPs) as well because consistency and following strict treatment guidelines is essential for all providers to help decrease the risk of antibiotic resistance developing in children and provide the best quality of care to all their patients.

RESEARCH QUESTION

In pediatric patients with acute otitis media (AOM) what is the effect of treating patients with oral antibiotics in comparison to providing conservative treatment known as "watchful waiting" and does it result in significant improvements in reduced symptoms and antibiotic resistance?

METHODOLOGY

- Evaluation and appraisal of the literature was conducted on the topic of AOM.
- Online databases that were utilized included: Medical Literature Analysis and Retrieval Online System (MEDLINE), Cumulative Index to Nursing and Allied Health Literature (CINAHL) with full text, Public/Publisher Medline (PubMed) and Google Scholar.
- All databases were accessed through the Massachusetts College of Pharmacy and Health Sciences (MCPHS) University, A-Z database.
- Databases were specific to nursing, allied health, life science and healthcare, allowing this author to search for peer-reviewed scholarly journals related to the topic of AOM antibiotic treatment and delayed treatment.
- Keywords included *acute otitis media (AOM)*, *pediatrics*, *antibiotics*, *delayed treatment*, *watchful waiting (WW)*, and *antibiotic resistance*. .
- Inclusion criteria included pediatric patients with symptoms of AOM, original studies written within the last ten years, English language articles only, full-text articles, scholarly journals that discussed antibiotic use and antibiotic stewardships and articles that discussed "*watchful waiting* or *delayed treatment"* in response to being diagnosed with AOM.
- Exclusion criteria included articles that were the population were not pediatric patients with symptoms of AOM, journal articles had not been written in the last ten years, were not primary sources or peer-reviewed, were not systemic reviews, and were not written in other languages besides English.
- Articles were separated into two categories that included quantitative research and mixed-methods research.

SYNTHESIS of the LITERATURE



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DISCUSSION/CONCLUSIONS

- The best course of action for treatment of AOM in the pediatric population, concluded that treating with antibiotics was favored over "*watchful waiting* "or delayed prescribing.
- Most children benefited from antimicrobial treatment (amoxicillin), which is the first line of treatment for AOM, despite the risk of antibiotic resistance and potential adverse side effects (Frost et al., 2021; Hoberman et al., 2011; Kono et al., 2021; Shahbaznejad et al., 2021; Tähtinen et al., 2017).
- Research showed that AOM symptoms improved faster when antibiotics were prescribed in the pediatric population, especially in the age group of 6 months to 6 years of age (Shahbaznejad et al., 2021).

IMPLICATIONS for NURSING PRACTICE

It is imperative that advanced practice registered nurses (APRNs) and other HCPs who treat the pediatric population are precise when diagnosing AOM and know the signs, symptoms and the different types of severities in order to provide the highest quality of care. Following the current and most up-to-date guidelines to diagnose and treat AOM for pediatric patients should be followed by all health professionals.

RECOMMENDATIONS for FUTURE RESEARCH

- The lack of knowledge by caregivers about delayed prescribing or *"watchful waiting"* is an area that was overlooked and needs to be further explored.
- Delayed prescribing is not utilized to its full potential because HCPs are more comfortable treating an illness with a medication instead of following protocol guidelines that call for delayed prescribing in patients who meet the criteria.
- With delayed prescribing, it is important that future research focuses on the patients that fill their antibiotic, evaluating delayed prescribing fill rates across diverse settings and populations as well as if the patient finished the course of antibiotics that they were prescribed.
- Another area of focus that should be further investigated is whether the pneumococcal conjugate vaccine reduces the risk of AOM in the pediatric population.
- Determining if the vaccine decreases the risk of children developing AOM is an important component for future studies and antibiotic stewardship recommendations.

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