

A COMPREHENSIVE REVIEW OF COMMON RESPIRATORY INFECTIONS ENCOUNTERED IN URGENT AND PRIMARY CARE: A REFERENCE GUIDE FOR JUDICIOUS ANTIBIOTIC USE WITH COMPLEMENTARY THERAPIES



Authors: Courtney Beam, MSN, FNP-BC, Joyce Fuss, MSN, FNP-C, and Wendy Stoelting-Gettelfinger, PhD, JD, FNP-C, Indianapolis, IN

Concern about antibiotic overuse has become heightened as bacterial resistance to antibiotics continues to increase. Patients experiencing respiratory symptoms frequently present to urgent/emergent care settings such as fast-track emergency care departments and primary care retail settings with the expectation that they will be prescribed antibiotics. The Centers for Disease Control and Prevention (CDC) reports that approximately 2 million people will become ill with bacteria that are resistant to at least one antibiotic, approximately 23,000 people die as a direct result of these infections, and many others die as a result of complications related to antibiotic-resistant infections.¹ The overuse of antibiotics is the most important factor related to antibiotic resistance. Antibiotics are one of the most commonly prescribed medications, and it is estimated that 50% of the antibiotics prescribed are either unnecessary or inappropriately prescribed.¹ Antibiotic prescribing practices vary greatly among providers, and despite readily available published guidelines, antibiotics continue to be misused.

Common respiratory infections that are treated in urgent and primary care settings are the focus of this literature review. Common infections and associated pathogens are identified. Current treatment modalities,

recommended guidelines, and complementary treatment options are reviewed for patients in primary and urgent care. Recommendations will be made to assist urgent and primary care providers in selecting appropriate antibiotics, symptomatic relief, and complementary treatments.

Problem

KNOWLEDGE

Knowing when to prescribe an antibiotic, how to prescribe it, and the type of antibiotic to prescribe is important in primary and urgent care. However, it has been demonstrated that practitioners lack consistency in prescribing practices, continue to ignore published guidelines, and overuse broad-spectrum antibiotics. Inappropriate use of antibiotics is a leading cause of antimicrobial resistance throughout the world.² Currently, very few new antibiotics are being developed, which increases the importance of conserving our current resources.² Antibiotic-resistant infections increase health care costs, require complex and prolonged managed care, and are more likely to result in hospitalization, disability, and even death.¹ Multiple factors influence inappropriate antibiotic use. These factors include, but are not limited to, patient satisfaction, time constraints, lack of knowledge about appropriate antibiotic use, noncompliance with published guidelines, and overly cautious practitioners.³

PATIENT SATISFACTION

Patient satisfaction is the most prevalent factor influencing antibiotic prescribing practices among practitioners.^{4,5} Patients who present for treatment of acute illness expect to be treated with antibiotics and are more satisfied when they are provided with a prescription.⁶⁻⁸ Patients who are educated about their illness and what to expect are just as satisfied with their care. However, the process of educating the patient prolongs evaluation time for care providers.⁹

Courtney Beam is Member, Indy Roadrunners Chapter 34, is FNP at Franciscan Provider Network, specializing in urgent care and occupational health.

Joyce Fuss, Member, Indy Roadrunners Chapter 134, is FNP, Hendricks Regional Health Immediate Care Centers, ENA.

Wendy Stoelting-Gettelfinger is Associate Professor and FNP Coordinator, University of Indianapolis, Indianapolis, IN.

For correspondence, write: Wendy Stoelting-Gettelfinger, PhD, JD, FNP-C, University of Indianapolis School of Nursing, 1400 E Hanna Ave, Indianapolis, IN 46217; E-mail: stoeltinggett@uindy.edu.

J Emerg Nurs 2016;42:376-86.

Available online 21 July 2016

0099-1767

Copyright © 2016 Emergency Nurses Association. Published by Elsevier Inc <http://dx.doi.org/10.1016/j.jen.2016.02.012>

Prolonged evaluations and wait times in clinics and emergency departments have been directly associated with reduced patient satisfaction.¹⁰ Health care providers have expressed fear of losing their job and experiencing a reduction in revenue if they do not maintain high patient satisfaction scores. With increased emphasis on pay for performance, many providers are unwilling to risk decreased patient satisfaction scores and defer to patient requests or the perceived expectation for antibiotics.⁸

DISREGARD FOR GUIDELINES

Another identified factor resulting in overuse or misuse of antimicrobial therapy is noncompliance with published guidelines. During the review process, multiple articles cited lack of compliance with published guidelines as the rationale for antimicrobial overuse.^{3,4,11–13} Practitioners who followed published guidelines demonstrated a reduction in overuse or misuse of antimicrobial agents.^{3,12} Although practitioners had a working knowledge of guidelines, they continued to select antibiotics based on patients' desires and what the practitioner was taught during training.⁴

Purpose

The purpose of this review is to provide a reference for providers to assist in the identification of common viral and bacterial respiratory infections and treatment options that reflect current published guidelines. This review focuses on appropriate use of antimicrobial therapies and discusses available symptomatic and complementary therapies. Distinguishing between bacterial and viral pathogens can be difficult in various infections. When bacterial pathogens are suspected, it is important to recognize the most common causative pathogens and local antimicrobial resistant rates prior to prescribing an antimicrobial agent.¹⁴ Antimicrobial agent selection should be based on the best available coverage for the identified pathogen, a narrow spectrum of activity, and benefit versus risk of treatment. Patient history and risk factors are also key elements to consider.¹⁴

Methods

An extensive search of the Cochrane databases, CINAHL Plus, MEDLINE, National Guideline Clearinghouse, and Google Scholar regarding causative pathogens, diagnostics, recommended therapies, prescribing practices of providers, and complementary therapies was conducted. Systematic reviews, randomized controlled trials, and published

guidelines were included. Search terms for respiratory infections included “guidelines,” “homeopathic treatment,” and antibiotic use for acute bronchitis, acute otitis media, acute pharyngitis, pharyngitis, group A streptococcus, community-acquired pneumonia (CAP), acute rhinosinusitis, cough, and sore throat. Exclusion criteria included hospital-based therapies and treatments focusing on specific patient populations, such as hospital-acquired pneumonia. All reviews, trials, and guidelines were limited to the years 2004 to 2015.

Respiratory Infections Reviewed

For this review, acute bronchitis, acute otitis media, acute rhinosinusitis, CAP, and pharyngitis were selected as the most common respiratory infections encountered in urgent and primary care. The American Academy of Family Physicians (AAFP) advises against the use of antibiotics in patients with acute bronchitis. The American Academy of Pediatrics (AAP) also recommends that antibiotics not be prescribed for persons with viral illnesses such as sinusitis and bronchitis.¹⁵ According to 2010 CDC statistics, the most utilized diagnoses in primary and urgent care are respiratory infections.

ACUTE BRONCHITIS

Acute bronchitis—that is, transient inflammation of the trachea and major bronchi—is primarily a self-limiting viral infection.¹⁶ Acute bronchitis is one of the most common reasons why patients see a health care provider and is one of the top respiratory illnesses in the United States.¹¹ The hallmark symptom associated with acute bronchitis is a cough that persists for longer than 5 days and can last up to 3 weeks.¹⁶ Prescribing antibiotics for acute bronchitis was recently designated as 1 of 5 evidentiary categories of “wasteful” services arising from the evidence on its benefits, risks, and costs.^{17,18} Although the bacteria *Mycoplasma pneumoniae*, *Chlamydia pneumoniae*, and *Bordetella pertussis* have been associated with acute bronchitis, *M pneumoniae* and *C pneumoniae* have not been isolated in bronchial cultures, and *B pertussis* accounts for only 1% of all acute bronchitis cases.¹⁹ It is important for the practitioner to differentiate between acute bronchitis and CAP prior to treating a patient.¹⁹ The CURB-65 Index (Table 1) is a tool that can be used to manage pneumonia treatment.

Although multiple reviews and guidelines report the limited effectiveness of antibiotic therapy for the treatment of acute bronchitis, practitioners continue to prescribe

Download English Version:

<https://daneshyari.com/en/article/2609381>

Download Persian Version:

<https://daneshyari.com/article/2609381>

[Daneshyari.com](https://daneshyari.com)