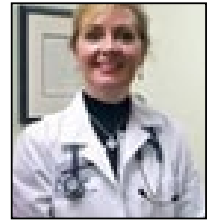


## Improving Practice through Understanding: A Fresh Look at the Judicious Prescription of Antibiotics

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### Abstract

**Objectives:** To explore and compare the knowledge, attitudes and experiences of doctors, dentists and veterinarians (as prescribers) in relation to antibiotic use and antibiotic resistance (ABR), and to consider the implications of these for policy-making that support a One Health approach.

**Background:** The purpose of this presentation is to provide an understanding of “why” an evidence-based approach is imperative for primary and urgent care providers to utilize when deciding to prescribe antibiotics. Knowing when, how, and what antibiotic to prescribe is an important aspect in primary and urgent care. However, it has been demonstrated that practitioners lack consistency in prescribing practices, continue to ignore published evidence-based guidelines, and overuse broad-spectrum antibiotics. Inappropriate use of antibiotics is a leading cause of antimicrobial resistance throughout the world. Currently, antibiotic resistance is one of the most significant and challenging global problems facing health care providers. This problem affects patients both clinically and financially involving more expensive alternative pharmacological agents (which potentially can be toxic), prolonged hospitalization, and increased morbidity and mortality. Despite recognition that unnecessary and prolonged use of antibiotics is the greatest risk factor for developing resistant pathogens, these practices persist in clinical settings. For example, in many clinical cases of respiratory tract infections caused by a virus, an antibiotic has been chosen as a drug of choice. Currently, there are very few new antibiotics being developed which increases the significance of conserving our current resources. 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. There are multiple factors that influence inappropriate antibiotic use. These include, but are not limited to, patient satisfaction, time constraints, lack of knowledge on appropriate antibiotic use, noncompliance with published evidence-based guidelines, and overly cautious practitioners. This presentation’s primary focus is to promote judicious use of antibiotics through better understanding and utilization of evidence-based guidelines, education, symptom relief, and complimentary therapies for treatment of patients. **Methods:** An extensive search was conducted on the Cochrane databases, CINAHL Plus, MEDLINE, National Guideline Clearinghouse, and Google Scholar regarding causative pathogens, diagnostics, recommended therapies, provider prescribing practices, and complimentary therapies. **Results:** Evidence-based recommendations and treatment guidelines are readily available; however, they vary between organizations. Despite available guidelines, treatment practices diverge greatly between providers. Contributing factors to antibiotic overuse include patient satisfaction, time constraints, lack of knowledge, and overly cautious practitioners. **Conclusions/Implications for Practice:** Inappropriate and overuse of antibiotics in urgent and primary care continues despite availability of evidence-based guidelines discouraging the practice. Reduction in the availability of new antibiotics requires conservation of available resources for protection of the public’s future health. Increasing mortality rate from antibiotic resistant infections, data indicating high rates of improper antibiotic use, and the lack of adherence to published guidelines demonstrates the need for a change in current practice. The greatest practical impediment to implementing appropriate antibiotic use is the risk of losing patient satisfaction. Patients who present for treatment of acute illness expect to be treated with antibiotics and are more satisfied when provided with a prescription although, patients who are educated on their illness and what to expect are just as satisfied with their care. However, the process of educating the patient prolongs evaluation time for the providers and creates a dilemma of balancing good practice against satisfaction ratings and job security. Better understanding of the “why” behind evidence-based practice guidelines provides practitioners with tools to promote understanding and improve the judicious prescription of antibiotics. Data shows that judicious use of antibiotics is associated with a decreased rate of infections caused by antibiotic resistant pathogens. This presentation will discuss the current state of antibiotic usage in clinical settings, factors that contribute to unnecessary use of antibiotics, multidimensional (including educational) interventions that are necessary to reduce overuse of antibiotics, and current evidence-based and research findings related to this topic. **Learning Objectives:** 1) Participants will identify how evidence-based practice can improve judicious antibiotic prescriptive practices. 2) Participants will describe three barriers to the consistent use of evidence-based guidelines in antibiotic prescriptive practices. 3) Participants will discuss the role of the professionally invested nurse in utilizing evidence-based practice to guide the judicious prescription of antibiotics. 4) Participants will identify three reasons “why” evidence-based practice is critical to promoting satisfactory patient outcomes when prescribing antibiotic pharmacotherapies.

### Publications

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- \*Stoelting-Gettelfinger, W. (2008). Nursing licensure and certification. In Roux, G. & Halstead, J. (Eds), *Issues and trends in nursing: Essential knowledge for today and tomorrow*. (87-104). Boston: Jones and Bartlett

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