Title:
Exploring the Role of Nurses as Antimicrobial Stewards

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Session Title:
Antibiotic Stewardship
Slot:
J 17: Tuesday, 31 October 2017: 8:00 AM-8:45 AM
Scheduled Time:
8:00 AM

Keywords:
antimicrobial stewardship, learning needs and nursing roles

References:
Infectious Diseases Society of America (IDSA) (2015). *Promoting antimicrobial stewardship in human medicine.* Accessed from http://www.idsociety.org/stewardship_policy/

World Health Organization (WHO) (2015). *Global action plan on antimicrobial resistance.* Accessed from http://apps.who.int/iris/bitstream/10665/193736/1/9789241509763_eng.pdf?ua=1

Abstract Summary:
The role of nurses in antimicrobial stewardship (AMS), or safe antimicrobial management is not well defined. In this New Zealand research, potential nursing roles in AMS were identified. Educational foci and learning strategies were formulated to address learning needs of nurses to effectively embed AMS in clinical practice.

Learning Activity:

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
The learner will be able to understand on the crucial role of nurses in safe use of antibiotics to address the growing problem of antimicrobial resistance associated with antibiotic overprescribing.	Twelve potential roles of nurses that could make a difference in safe antibiotic use were identified and these will be presented one by one to the learners.
The learner will be able to conceptualize pedagogical methods to address the learning needs of nurses in order to effectively integrate antimicrobial stewardship in clinical practice.	Based on the findings of the study, the educational foci that need further interventions and the pedagogical methods favored by nurses in the delivery of antimicrobial stewardship education and training will be presented.

Abstract Text:

Purpose: Antimicrobial stewardship or safe antimicrobial management refers to a multidisciplinary approach to combat the growing problem of antimicrobial resistance associated with antibiotic overprescribing (Infectious Diseases Society of America, 2015; World Health Organization, 2015). The role of registered nurses in AMS is not well understood. The purpose of this study is to investigate nurses' knowledge of antibiotics, antimicrobial resistance, antimicrobial stewardship and their views and perception of their potential roles as antimicrobial stewards.

Methods: A descriptive, cross-sectional quantitative survey was used in the study designed for registered nurses in the greater Auckland area of New Zealand. Questions were loaded in Qualtrics (https://www.qualtrics.com; Provo, Utah, USA), an online survey tool. Data are analyzed using descriptive and inferential statistics using Qualtrics and IBM® SPSS® Statistics version 23. Statistical significance was established at $P \leq 0.05$.

Results: A total of 298 respondents from diverse backgrounds completed the online survey. The median age group was 40-49 years old. More than half (161/298, 54%) of the respondents had higher level of qualifications in the form of postgraduate degrees. The majority felt they had "average" knowledge of antibiotics, antimicrobial resistance and antimicrobial stewardship, and a small minority (<5%) felt they had excellent knowledge. Knowledge was lowest regarding AMS – 146/298 (49%) reported "below average" or "poor" knowledge. Lack of knowledge was identified as the most challenging factor in integrating antimicrobial stewardship in clinical practice. About 84% had not heard of antimicrobial stewardship being implemented in the workplace despite its presence in major district health boards. The majority implied that educating patients on safe antibiotic use (292/298, 98%) and ensuring that antibiotics are initiated and administered at the correct time (289/298, 97%) are significant roles that nurses must play in antimicrobial stewardship. Younger and less experienced nurses (means 2.19/5 and 2.21/5, respectively) had higher expectations for antibiotics to be prescribed by their doctor for the common cold or influenza compared to older (mean 1.75/5) and more experienced nurses (mean 1.64/5), (P<0.05). An overwhelming majority suggested (N=298) that education and training of antimicrobial stewardship should be implemented in the clinical setting so that the framework can be effectively embedded in clinical practice, and 99% (294/298) proposed learning strategies to be facilitated in the workplace.

Conclusion: Nurses play an essential role in the appropriate use of antibiotics. It is therefore paramount that educational needs of nurses are addressed immediately. Sufficient knowledge related to antibiotics, antimicrobial resistance and antimicrobial stewardship are important for nurses to effectively promote the safe and judicious use of antibiotics and help thwart the growing epidemic of antimicrobial resistance.