Title: Rapid Antigen Strep A Test (RADT) Impact on Antibiotic Prescribing Behavior in Acute Pharyngeal Infection

Sarah K. Amer [1]

[1]Department of Pharmaceutical Sciences, Faculty of Pharmacy, Arab Academy for Science, Technology and Maritime Transport, Alexandria, Egypt

Acute bacterial pharyngitis is one of the major common diseases accounting for high outpatient visits rates. It is caused by *Streptococcus pyogenes* (group A beta-hemolytic); gram-positive *cocci* containing the Lancefield Group A antigen. Antibiotic prescriptions for pharyngitis have been estimated for increased health costs. It is challenging to distinguish between viral and bacterial pharyngeal infection on sight in outpatient clinics as traditional bacterial pharyngeal identification procedures require almost 24 to 48 hours. However, other approaches as the Rapid Response Strep A Test Strip (RADT) provides results within 5 minutes. The test uses specific antibodies to rapidly, qualitatively and selectively detect the presence of Strep A antigen in throat swab specimens. The study assessed the use of RADT and their impact on antibiotics prescribing behavior of physicians in outpatient clinics in Ministry of Health hospitals in Alexandria, Egypt. It also studied the barriers hindering the use of RADTs. The study revealed that the physicians' compliance regarding their use of RADT varied according to their different qualifications' degrees. Bachelor's degree physicians were the most to use the RADT resulting in the highest significant decrease in antibiotics prescribing rate from 82.5% to 20% (p=.002). Followed by master's degree physicians; they also showed a significant reduction from 92% to 65.7% (p=.017). A border line acceptable decline from 86.7% to 80% (p=.056) was seen among the PhD physicians; they were the least group utilizing RADT as they mainly relied on their clinical experience claiming that the test detects only one bacterium for a positive result, which was considered as the main barrier limiting their use of RADT. However, the study achieved a significant decrease in antibiotics prescription in outpatient clinics attributed to the availability of RADT. Conclusively, RADT could be a reliable tool to ensure bacterial diagnosis through differentiation between viral and bacterial infections.



Biography

Sarah Amer earned her bachelor's degree with honors at the Faculty of Pharmacy, Alexandria University, Egypt in 2012. She currently works as an assistant lecturer of Pharmaceutics in the Arab Academy for Science and Technology-AAST Alexandria, Egypt. She has a Master's degree in Biomedical Informatics and Medical Statistics from the Medical Research Institute, Egypt. She also earned a Microbiology diploma from the High Institute of Public Health in Egypt. Currently, she is enrolled in the Pharmaceutics PhD program at the Faculty of Pharmacy, Alexandria University, Egypt. Over the course of the last two years, she disseminated researches in pharmaceutical drug-delivery systems and pharmacy practices through journal publication (Journal of Microbial and Biochemical Technology) and conferences participations (4th World

Congress and Expo on Applied Microbiology & 2nd International Conference on Food Microbiology in Madrid Spain 2017 and Dubai International and Technologies Conference & Exhibition DUPHAT in Dubai 2018 and 2017).

Email: sarah7amer8@gmail.com

Presenting author details

Full name: Sarah Khamis Mohamed Elsayed Amer

Personal Email: sarah7amer8@gmail.com

Mobile number: (+20) 01112551018

Category: (Oral presentation)

Date of Birth: 02/08/1988

Postal Address: 21532