Developing and Implementing an Innovative Interprofessional Antimicrobial Stewardship Curriculum

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Purpose: To create an interprofessional antimicrobial stewardship curriculum to enable learners to appreciate the importance of rational antibiotic use as healthcare professionals. We also aimed to create an environment where healthcare professional students can communicate effectively with each other and work collaboratively to solve patient cases.

Background: Inappropriate use of antimicrobials is directly linked to the emergence of multidrug resistant pathogens, adverse effects, and superinfections, such as *C. difficile* colitis. A strategy to promote appropriate use of antibiotics is the goal of antimicrobial stewardship programs (ASP). We espouse rational antimicrobial use to provide optimal treatment for patients while simultaneously preventing the emergence of multidrug resistant pathogens and decreasing the incidence of adverse effects from medications to enhance patient safety. Education regarding antimicrobial stewardship has been taught in the clinical years, but less effort has been made in teaching these principles to early learners. This exercise will be a way to address this deficiency and model interprofessional teamwork, a substantial part of our profession and a strategy that is increasingly endorsed by professional organizations.

Methods: We queried MedEd PORTAL for antimicrobial stewardship curricula in pre-clinical education. We found no published curricula in U.S. medical schools addressing ASP and rational antibiotic use during the pre-clinical years. We performed a literature review and developed a short video using Sketchbook Express and Camtasia, as well as a PowerPoint presentation on antimicrobial stewardship. Students will complete this module prior to a required small group. Medical (MSII) and pharmacy (PIII) students will come together in a required small group activity. The small groups led by either an ID physician or a pharmacist will be implemented in the Fall 2013-2014 academic year. They will complete cases developed by infectious diseases (ID) and clinical pharmacy faculty. MSII and PIII students will work through patient cases that will emphasize and integrate the knowledge students obtained from the module and appropriate lectures.

Evaluation Plan: Qualtrics pre-test and post-test survey using standardized instruments will gauge the inter-professional attitudes of the students before and after the intervention. Student medical knowledge will be tested by exam questions designed by our advisors. We will assess the level of satisfaction and delivery of the curriculum using E-value.

Dissemination: We plan to submit this for presentation locally and regionally (WGEA conference). We will publish these results in a peer reviewed journal within 1-2 years. We also plan to submit the curriculum to MedEd PORTAL.

Reflective Critique: We received feedback on a weekly basis from our advisors, and their input was particularly important in polishing the final products. In addition, we received feedback from the Curriculum Ambassador program leaders and peers. Our advisors also reviewed the content of the independent learning module. We are awaiting student evaluations that will be completed following small group session.