Oral Defense Announcement
University of Missouri – St. Louis Graduate School

An oral examination in defense of the dissertation for the degree
Doctor of Nursing Practice

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Perioperative Antimicrobial Prophylaxis in Vascular Surgery:
A Quality Assessment and Improvement Project

Date: April 22, 2019
Time: 3:00 p.m. to 4:30 p.m.
Place: 117 Nursing Administration Building

Abstract

Introduction: Prophylactic antimicrobial selection and administration for the prevention of surgical site infections in vascular surgery is a recommended best practice. Non-adherence to published guidelines on the selection and administration of antimicrobials has been observed and may lead to reduced efficacy of antimicrobial prophylaxis.

Methods: An observational, descriptive design was used to study clinician knowledge and behavior and included a retrospective patient record review and provider knowledge survey. A clinical education intervention targeting providers responsible for the selection and administration of antimicrobial prophylaxis was conducted. A repeat patient record review and knowledge survey was completed following the education intervention.

Results: The rate of timely administration of all antimicrobials increased from 69.2% to 88.9% (P = 0.0379), and for vancomycin from 16.7% to 67.7% (P = 0.0241). Rate of appropriate selection increased from 76.9% to 83.8% (P = 0.4526). Knowledge and confidence among clinicians improved in some areas regarding the selection and administration of antimicrobial agents.

Conclusion: This quality assessment and process improvement study demonstrated that with targeted educational experiences and supportive clinical decision-making tools, clinicians responsible for vascular surgery patients can improve their knowledge, selection and timely administration of prophylactic antimicrobials. Implementing these processes into existing pre-operative patient screening/assessment clinics and surgery scheduling mechanisms would hardwire this process setting the stage for clinical outcome trials.

Defense of Dissertation Committee
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