Abstract:

OBJECTIVE: A study was undertaken to determine the incidence of Acinetobacter baumannii and methicillin resistant Staphylococcus aureus (MRSA) contamination on reusable phlebotomy tourniquets at Wilford Hall Medical Center, Lackland AFB, TX.

DESIGN: Reusable tourniquets (n=200) were collected after being used for one day in the outpatient blood collection center (n=100) or during morning blood collection rounds on inpatient wards (n=100). Tourniquets were cultured and growth was screened for A. baumannii and S. aureus. A. baumannii isolates were identified using colonial morphology, oxidase, and GNI+ card on Vitek Legacy. S. aureus isolates were identified and screened for MRSA using colonial morphology, catalase, Staphaurex, and Oxacillin screening agar.

RESULTS: Each outpatient tourniquet was used on an average of 33 patients and each inpatient tourniquet was used on an average of 11 patients. The overall contamination rate was 9% (18/200). A. baumannii was isolated from 11% (11/100) of the outpatient tourniquets and 3% (3/100) of the inpatient tourniquets. Methicillin-susceptible S. aureus was isolated from 2% (2/100) of the outpatient tourniquets and 3% (3/100) of the inpatient tourniquets. No MRSA was isolated. One outpatient tourniquet had both A. baumannii and methicillin-
susceptible S. aureus.

CONCLUSIONS: Reusable tourniquets could serve as a potential reservoir for bacterial pathogens.