



This study aimed to assess for the presence of multi-drug resistant organisms (MDROs) on tourniquets and quantify the number of bacteria to which patients might be exposed with each blood collection episode” Schauer and Hammer (2015).

Abstract:

Aim: This study aimed to assess for the presence of multi-drug resistant organisms (MDROs) on tourniquets and quantify the number of bacteria to which patients might be exposed with each blood collection episode.

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Methods: Tourniquets were randomly sampled in a 246-bed, secondary level, New Zealand hospital, which is currently non-endemic for MDROs. A 6-cm length of each tourniquet sampled was applied to the surface of an agar plate and the colony forming units (CFUs) were enumerated. All colonies were then screened for MDROs using standard methods. CFU counts per linear centimetre were multiplied by a range of patient arm circumference measurements. Comparison was also made between non-disinfected tourniquets left on the wards and phlebotomy service tourniquets after daily decontamination with a proprietary disinfectant.

Results: The median exposure risk from non-disinfected tourniquets was 173 CFUs per collect

(95% CI, 104–861). None of the general ward tourniquets grew any MDROs but four out of five dedicated, single-patient reusable isolation room tourniquets grew MRSA. Disinfected tourniquets had few if any CFUs and CFU counts were significantly lower than non-disinfected tourniquets ($P = 0.0001$).

Conclusion: The quantitative risk from reusable tourniquets appears low in the setting of MDRO non-endemicity, with the application of standard infection control practices.

Reference:

Schauer, C.K.M.W. and Hammer, D.A. (2015) Quantifying patient bacterial exposure risk from reusable phlebotomy tourniquets in a New Zealand secondary level hospital. *Journal of Infection Prevention*. 16(6), p.262-265.

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