INTRODUCTION: Meticillin-resistant Staphylococcus aureus (MRSA) hospital-acquired infection is associated with increased patient mortality. National guidelines state that shared patient equipment must be cleaned after use. The authors sought to identify MRSA contamination in a sample of non-disposable venepuncture tourniquets and audit cleaning habits between patient contacts.

MATERIALS AND METHODS: Fifty tourniquets were collected from junior doctors, nursing staff and wards from two district general hospitals in Essex, UK in 2007. A questionnaire was completed at the time of collection for each tourniquet. The tourniquets were cultured using standard microbiology techniques.

FINDINGS: 18/50 (36%) tourniquets were positive for S. aureus and of these 6/50 (12%) were MRSA positive. 33/43 (77%) healthcare professionals using non-disposable tourniquets for venepuncture made no attempts at cleaning their tourniquets. 10/43 (23%) staff admitted to cleaning their tourniquets. The tourniquets were used for an average of 14 weeks on approximately three different patients per day. 30/50 (60%) tourniquets were visibly soiled and of these 13 were blood stained and 20/50 (40%) appeared ‘clean’. Worn tourniquets when compared with the ‘clean’ tourniquets were more likely to be contaminated with S.
aureus, 15/30 (50%) vs 3/20 (15%), and MRSA 5/30 (17%) vs 1/20 (5%).

CONCLUSION: Non-disposable venepuncture tourniquets are contaminated with MRSA and pose a risk to patients. The majority of clinical staff do not clean them between patient contacts as recommended by guidelines. The use of non-disposable venepuncture tourniquets should be abandoned. The introduction of disposable tourniquets to clinical practice should be an adjunct to current measures for MRSA prevention.