Abstract:

OBJECTIVE: It has been suggested that blood cultures drawn from vascular catheters have a higher false positive rate than those drawn by venepuncture. In the face of institutionally imposed practice change prohibiting obtaining blood cultures from intravenous (i.v.) catheters in the ED, our aim of was to compare the rate of contaminated blood cultures between those taken from recently placed i.v. catheters and those taken by direct venepuncture.

METHOD: Prospective, non-randomised, observational study comparing the rate of contaminated blood cultures for specimens taken from recently placed (i.v.) catheters.

RESULTS: Four hundred seventy-two blood culture sets were studied. There were 65 positive cultures, of which 49 (75%; 95% confidence interval [CI], 63-85%) were classified as true positive. The overall rate of contaminated blood cultures was 3.4% (95% CI, 2.0-5.6%). There was no difference in false positive rate between blood cultures taken via venepuncture and those taken from a recently placed i.v. cannula (P = 0.52; odds ratio, 0.9; 95% CI, 0.33-2.44).

CONCLUSION: We found no difference in contaminated blood culture rate between recently
placed i.v. catheters and direct venepuncture when infection control procedures were followed.
Rate of contamination when taking blood cultures from a newly established intravenous catheter | 3