Abstract:

INTRODUCTION: Our objective was to determine whether there is a cut-off in the needleless connectors' (NCs) cultures that when combined with skin cultures it was as efficient as conventional superficial cultures to rule-out catheter colonization (CC) and catheter-related bloodstream infection (CRBSI).

METHODS: During 10 months, we collected samples and then we analyzed the validity values of skin+NCs cultures for CC and CRBSI considering the best cut-off showing at least >90% of specificity to have a high negative predictive value using a ROC curve.

RESULTS: We collected a total of 167 catheters. The optimal cut-off of NCs culture was 1000cfu/NC. The validity values for CC and CRBSI combining skin cultures and NCs cultures using the selected cut-off were, respectively: S, 42.9%/16.7%; SP, 83.6%/75.8%; PPV, 27.3%/2.5%; and NPV, 91.0%/96.0%.

CONCLUSIONS: The combination of skin cultures and quantitative NCs cultures could be used for ruling-out CC and CRBSI.

Reference:

Pérez-Granda, M.J., Barrio, J.M., Cruces, R., Alonso, B., Martín-Rabadán, P., Collado, I. and Guembe, M. (2020) How should microbiology laboratories interpret cultures of the sonicate of closed needleless connectors? Enfermedades Infecciosas y Microbiología Clínica. March 19th. doi: 10.1016/j.eimc.2020.01.024. (Epub ahead of print). (Article in English, Spanish).