Each institution should have an efficient policy to prevent blood culture contamination, emphasizing the importance to follow guidelines for prescribing and collecting blood cultures" Dargère et al (2018).

Abstract:

Background: Despite the development of new microbiological technologies, blood cultures remain the first line tool for the diagnosis of bloodstream infections. Their diagnostic value may be affected when a microorganism of questionable evidence is isolated, for example, coagulase-negative staphylococci, Bacillus spp., viridans group streptococci, Corynebacterium spp., Propionibacterium spp., and Micrococcus spp. Finally, making a correct diagnosis of pathogenicity (vs contamination) is very challenging.

Aims: To review the current ways of dealing with the problem of blood culture contaminants and to provide practical suggestions to decrease blood culture contamination rates.

Sources: PubMed electronic databases and existing reviews were searched up to December 2017 to retrieve relevant publications related to the topic.

Contents: This review describes the burden of blood culture contamination, and analyses the main current issues and controversies in interpreting the occurrence of potential blood culture contaminants. It focuses on the best described approaches to decide whether blood culture contamination is present or not, and discusses the different strategies of prevention in adults.

Implications: Each institution should have an efficient policy to prevent blood culture contamination, emphasizing the importance to follow guidelines for prescribing and collecting blood cultures. Training healthcare workers should focus on detrimental influence on patient care, and highlight the work and costs due to contaminants. The accurate differentiation of a contaminant from a true pathogen relies on a multidisciplinary approach and clinical judgment of experienced practitioners.

Reference:

Dargère, S., Cormier, H. and Verdon, R. (2018) Contaminants in blood cultures: Importance, implications, interpretation and prevention. Clinical Microbiology and Infection. April 2nd. .

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