

The Duke-International Society for Cardiovascular Infectious Diseases Infective Endocarditis Criteria 2023: Better, but Still Room for Modifications

Infective endocarditis (IE), a severe infection of the heart's inner lining, remains a formidable challenge despite significant advancements in health care.^[1] The Modified Duke Criteria, introduced in 1994 and revised in 2000, have served as the cornerstone for IE diagnosis.^[2] However, the ever-changing epidemiology, microbiology, and treatment strategies of IE necessitate a continuous evolution of diagnostic guidelines.^[3] The 2023 Duke-International Society for Cardiovascular Infectious Diseases (ISCVID) IE Criteria, a collaborative effort of the ISCVID, represent a significant step forward in addressing the limitations of the Modified Duke Criteria. The new criteria incorporate recent advances in genetic, molecular, and tissue staining methods, enhancing the sensitivity and accuracy of IE diagnosis.^[4]

The 2023 Duke-ISCVID IE Criteria expand the scope of microbial detection, adding new organisms to the “typical microorganism” group and introducing a new major criterion for fastidious pathogens. This broadened spectrum reflects contemporary epidemiological data and facilitates earlier identification of a wider range of IE-causing pathogens. Blood cultures remain the gold standard for microbiological diagnosis in IE.^[4] The ISCVID Working Group advocates for abolishing the outdated practice of specifying blood culture collection times and separate venipunctures, aligning with current clinical practices and a deeper understanding of endovascular infection etiology. This simplification streamlines the diagnostic process and reduces unnecessary patient discomfort. The 2023 Duke-ISCVID IE Criteria, while representing a substantial

improvement, are not without limitations. The requirement of three positive blood cultures for nontypical infections may pose challenges due to limited blood culture sampling practices. In addition, access to advanced diagnostic tools, such as metagenomic sequencing and sophisticated cardiac imaging, may be restricted in resource-limited settings.

The 2023 Duke-ISCVID IE Criteria mark a paradigm shift in IE diagnosis and management, reflecting the evolving landscape of this complex disease. By incorporating recent advancements and addressing limitations, these criteria provide a more comprehensive and accurate framework for IE identification, enabling timely and effective treatment interventions. As data continue to emerge, future refinements of the criteria will further enhance our ability to combat this challenging infection.

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Conflicts of interest

There are no conflicts of interest.

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