

REVIEW

INFECTIVE ENDOCARDITIS – NEW THERAPEUTIC STRATEGIES

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Abstract: *Infective endocarditis (IE) is a rare condition, with high morbidity and mortality. It has an annual incidence of 3–10/100,000 of the population, with a mortality of up to 30% at 30 days. In the post pandemic period, with greater use of intravenous lines and increasing use of implantable intracardiac devices, the epidemiology of IE has changed. Staphylococcus aureus is now the most prevalent cause of IE (in most studies ~26.6% of all cases), followed by viridans group streptococci (18.7%), other streptococci (17.5%) and enterococci (10.5%). These microorganisms together account for 80–90% of all cases of endocarditis. Early clinical suspicion and a rapid diagnosis are essential to enable the correct treatment pathways to be accessed and to reduce complication and mortality rates. Impressive steps have been made since 1955, when the first guideline on IE prophylaxis, diagnosis and treatment were issued. In the current review, the aim is to detail the latest guidelines of the European Society of Cardiology (ESC) for the evaluation and management of patients with IE - new therapeutic strategies depending on the pathogen involved and the new drugs available.*

Keywords: infective endocarditis, epidemiology, diagnosis, treatment.

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Introduction

Infective endocarditis (IE) is a severe, potentially life-threatening cause of sepsis, affecting the endothelium of the heart, typically one or more heart valves. It has an annual incidence of 3–10/100,000 of the population, with a mortality of up to 30% at 30 days^{1,2}.

The European Society of Cardiology (ESC) classified IE into different categories depending on:

- site of infection (left side, right side);
- the presence or absence of intracardiac foreign material (native valve, prosthetic valve, device-related);
- mode of acquisition (community-acquired, health care associated –

nosocomial or non-nosocomial, intravenous drug abuse-associated);

- microbiologic findings (with positive or negative blood cultures).

In the post pandemic period, with greater use of intravenous lines and increasing use of implantable intracardiac devices, the epidemiology of IE has changed³. *Staphylococcus aureus* is now the most prevalent cause of IE (~26.6% of all cases), followed by viridans group streptococci (18.7%), other streptococci (17.5%) and enterococci (10.5%)⁴. These microorganisms together account for 80–90% of all cases of IE⁵. The early clinical suspicion and a rapid diagnosis are essential to enable the correct