

**P2525 Differences between the 2015 ESC and the AHA guidelines for the treatment of infective endocarditis**

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**Title:** Differences between the 2015 ESC and AHA guidelines for treatment of infective endocarditis

**Background:** In 2015, both the European Society of Cardiology (ESC) and the American Heart Association published revised guidelines for the treatment of infective endocarditis (IE). The differences between these guidelines reflect areas of uncertainty in the treatment of IE.

**Materials/methods:** Recommendations for antimicrobial treatment of IE in the 2015 ESC and AHA guidelines were compared. We compared regimens for each causative pathogen, taking into account susceptibility, valve type (native or prosthetic) and (beta-lactam) allergy.

**Results:** In total 94 recommendations on antimicrobial therapy for IE were described. In 57 of 94 recommendations (61%) the ESC advised differently than the AHA and in 18 instances a recommendation was missing in one of the guidelines. These 75 discrepancies were summarized into larger groups of 26 underlying differences (examples are provided in table 1). Not all differences are major: for example the ESC advises daptomycin 10mg/kg, while the AHA recommends  $\geq 8$ mg/kg.

**Conclusions:** While there was considerable overlap between the two guidelines, we discovered several important differences in recommendations. A considerable amount of these differences reflect major discrepancies in treatment of IE, for example, which regimen to use for streptococci with a penicillin MIC of 0.5-2 or how often to dose gentamicin in staphylococcal and enterococcal IE. These major differences should form a basis for future research.

Table 1: **Examples of differences between ESC and AHA guidelines:**

<b>ESC</b>	<b>AHA</b>
Streptococci with penicillin MIC 0.25-2 are intermediately susceptible	Streptococci with penicillin MIC >0,5 are resistant
Gentamicin should be dosed once daily in staphylococcal and enterococcal IE	Gentamicin should be dosed thrice daily in staphylococcal and enterococcal IE
Cotrimoxazole/clindamycin is an alternative regimen for staphylococcal IE	Does not mention cotrimoxazole/clindamycin
Gentamicin should be added to vancomycin in penicillin intermediately susceptible streptococci	Gentamicin is not indicated in streptococcal IE caused by streptococci intermediately susceptible to penicillin
Addition of gentamicin to prosthetic valve endocarditis by streptococci is not indicated	Addition of gentamicin to prosthetic valve endocarditis by streptococci should be considered
Dose daptomycin for staphylococcal IE at 10mg/kg	Dose daptomycin for staphylococcal IE at ≥8mg/kg