- Intravenous drug users represent a risk group of fairly young people (median age 30–40 years).
- The tricuspid valve is infected in more than 50% of cases, followed by the aortic valve in 25% and the mitral valve in 20%, with mixed right-sided and left-sided infective endocarditis in a few instances.
- 60–80% of patients have no known preexisting valve lesions.
- The pathogens usually originate from the skin, explaining the predominance of Staph aureus. Pseudomonas aeruginosa and fungi are also encountered and produce severe forms of infective endocarditis.
- In HIV-1-positive intravenous drug users, both the risk of and mortality from infective endocarditis rise inversely to the CD4 count; risk is unaffected in patients with CD4 counts of more than 500 cells per microl, but increases four-fold in those with CD4 counts of less than 200 cells per microl.
- HIV-1-positive patients sometimes present with infective endocarditis caused by unusual organisms, including bartonella, salmonella, and listeria.

- Risk of native-valve disease is classically associated with congenital heart disease and chronic rheumatic heart disease.
- Mitral valve prolapse is a more controversial issue; patients with valve regurgitation have an increased risk of infective endocarditis.
- Degenerative valve lesions are a primary cause of senile aortic stenosis or mitral regurgitation, which are risk factors for infective endocarditis.
- 1–5% of individuals with infective endocarditis have prosthetic-valve endocarditis. Whether mechanical valves or bioprostheses are more prone to infection remains unresolved.
- IV drug use
- Nosocomial endocarditis
- Haemodialysis
- PVE is classified as either early or late infection, depending on whether the infection arises within 60 days of surgery or later.
- The condition peaks during the first 2 months after valve implantation and is often due to Staphylococcus epidermidis or Staph aureus.
- Progressive endothelialisation of the prosthetic material over 2–6 months reduces the susceptibility of the valve to infection.
- Late PVE is often due to other organisms: eg, streptococci and gram-negative bacteria of the HACEK group, Haemophilus spp, Actinobacillus actinomycetemcomitans, Cardio bacterium hominis, Eikenella corrodens, and Kingella kingae.

- Nosocomial endocarditis is a growing category
- Less than 50% of patients had cardiac predisposing factors.
- Predominant pathogens were staphylococci and enterococci, and were frequently associated with catheters or medicosurgical procedures.
- The authors of one study estimated that up to 13% of nosocomial Staph aureus bacteraemia were responsible for subsequent infective endocarditis. Moreover, possible right-sided nosocomial endocarditis was reported in 5% of bone-marrow transplant recipients who had central venous catheters.
- Nosocomial endocarditis is important because its case fatality rate is greater than 50%.
- Another iatrogenic risk for infective endocarditis is haemodialysis. The disease is two to three times more frequent in haemodialysis patients than in peritoneal dialysis patients or in the general population. More than 50% of cases are due to Staph aureus.