



coagulase negative staph

antimicrobial therapy

- Vancomycin is the drug of choice. Although clinically significant vancomycin resistance was first reported in 1987, its incidence has remained very low.
- Almost 90% of coagulase-negative staphylococci are resistant to methicillin and therefore antistaphylococcal penicillins and cephalosporins are of little value.
- On the rare occasions when sensitivity to these agents can be demonstrated, they may be the drugs of choice.
- Both linezolid and quinupristin/dalfopristin have excellent in vitro activity against coagulase-negative staphylococci even in the presence of vancomycin resistance, but as yet there is limited clinical experience in using these agents
- Resistance to aminoglycosides is also common.
- Even if sensitivity is shown, the requirement for additional bactericidal action is doubtful except in deep-seated infections such as endocarditis.
- Coagulase-negative staphylococci are frequently resistant to multiple antibiotics, including co-trimoxazole, erythromycin, quinolones, clindamycin, tetracycline and chloramphenicol

general

- The coagulase-negative staphylococci are distinguished from *S. aureus* by their inability to clot blood plasma.
- A number of species and subspecies have been defined, based on genetic and molecular typing.
- Novobiocin-sensitive species include *S. epidermidis*, *S. haemolyticus*, *S. lugdenensis*, *S. schleiferi* and *S. hominis*, while *S. saprophyticus* and *S. xylosum* are resistant.
- It is not usually necessary to identify the species of coagulase negative staphylococci as there are no clear associations between clinical syndromes and the species

colonisation

- *S. epidermidis* is the predominant human species, accounting for 65–90% of all staphylococci recovered from humans.
- It is a normal commensal at a wide variety of anatomical sites including mucous membranes, groin, axillae and exposed skin surfaces.

infections

- The recognition of coagulase-negative staphylococci as an increasingly important nosocomial pathogen has occurred recently.
- They are causative organisms in 19% of nosocomial ICU infections and are by far the most common pathogen isolated in catheter-related bacteraemia.
- Other polymer-associated infections include the catheterised urinary tract, neurosurgical shunts and prosthetic joints.
- Clinical manifestations can be nonspecific, following a subacute or even chronic course and, as a consequence of low virulence, are often not life-threatening.
- Disease may be more severe in the immunocompromised patient or if one of the more virulent species such as *S. lugdenensis* is involved.
- Native valve endocarditis, often complicating congenital or valvular heart disease, is the only coagulase-negative staphylococcal infection in the immunocompetent host not attributed to the presence of a foreign body.
- Coagulase-negative staphylococci are responsible for less than 5% of cases of endocarditis; however, serious complications occur and the case-fatality rate is as high as 36%