Claims

1. Use of Afabicin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof in the manufacture of a medicament for treating bacterial infections involving biofilm wherein the Afabicin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof is to be administered in combination with at least one further agent selected from the group consisting of Daptomycin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof, Vancomycin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof, and Clindamycin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof.

2. The use according to claim 1, wherein the biofilm contains or consists of *staphylococcus* bacteria.

3. The use according to any one of claims 1 to 2, wherein the *staphylococcus* bacteria are selected from the group consisting of:

    - Staphylococcus aureus, including community-acquired Staphylococcus aureus, and hospital-acquired Staphylococcus aureus
    - Coagulase negative Staphylococci (CoNS), for instance Staphylococcus epidermidis, Staphylococcus haemolyticus, Staphylococcus lugdunensis, Staphylococcus simulans, Staphylococcus hominis, wherein the CoNS is preferably Staphylococcus epidermidis,
    - Methicillin-susceptible or methicillin-resistant Staphylococci wherein the Staphylococcus is preferably Staphylococcus aureus or Staphylococcus epidermidis,
    - Staphylococcus aureus strains, or CoNS strains wherein said strains are resistant to one or more antibiotic and wherein said antibiotic is preferably selected from β-lactams, Cephalosporins, Glycopeptides such as Vancomycin, Linezolid, Lincosamides such as Clindamycin, Rifampicin, Lipopeptides such as Daptomycin, Fluoroquinolones, Trimethoprim/Sulfamethoxazole, Fosfomycin, Fusidic acid, Tigecycline, Tetracyclines, and Dalbavancin, and wherein the CoNS strains is preferably Staphylococcus epidermidis,
    - Multidrug resistant Staphylococcus strains wherein the multidrug resistant staphylococcus strain is preferably selected from the group consisting of Multidrug resistant Staphylococcus aureus strains and Multidrug resistant CoNS strains, and wherein the Multidrug resistant CoNS strains is preferably Staphylococcus epidermidis,

    wherein, preferably the staphylococcus bacterium is Staphylococcus aureus and/or CoNS wherein the CoNs is preferably S. epidermidis.

4. The use according to any one of claims 1 to 3, wherein the bacterial infection is associated with an open wound and/or wet wound and/or a wound with drainage in place, and preferably wherein the bacterial infection is associated with an open wound.

5. The use according to any one of claims 1 to 4, wherein the Afabicin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof is to be administered in combination with

the at least one further agent during a perioperative period and preferably pre and/or post operatively.

6. The use according to any one of claims 1 to 5, wherein the bacterial infection involves biofilm that contains staphylococcu*s* bacteria resistant to rifampicin.

7. The use according to any one of claims 1 to 6, wherein the bacterial infection involves biofilm that contains methicillin-resistant *staphylococci*, and preferably wherein the staphylococci is Staphylococcus aureus or a CoNS wherein the CoNS is preferably Staphylococcus epidermidis.

8. The use according to any one of claims 1 to 7, wherein the bacterial infection is selected from the group consisting of:

    - a medical implant associated infection,
    - osteomyelitis,
    - infections in cystic fibrosis patients,
    - pleuropulmonary infections such as pneumoniae, preferably wherein the pleuropulmonary infection is chronic, and more preferably wherein the pleuropulmonary infections is obstructive pulmonary disease,
    - endocarditis and preferably wherein the endocarditis is native valve endocarditis,
    - wound infections, preferably wherein said wound infections are chronic,
    - mastitis,
    - sinusitis, preferably wherein said sinusitis is chronic,
    - otitis media, preferably wherein said otitis media is chronic,
    - urinary tract infections,
    - tonsillitis, preferably wherein said tonsillitis is chronic,
    - laryngitis, preferably wherein said laryngitis is chronic,
    - infection associated with kidney stones
    - biliary tract infections,
    - aerobic vaginitis,
    - septic thrombophlebitis,
    - infections associated with intracellular biofilms, for instance in Kupffer cells or in tonsillar cells, and
    - colonization by Staphylococcu*s* aureus that predisposes the patient to infections.

9. The use according to any one of claims 1 to 8, wherein the bacterial infection is a medical implant associated infection and wherein the medical implant is a permanent indwelling device and preferably is a prosthetic joint.

10. The use according to any one of claims 1 to 9, wherein the bacterial infection is a medical implant associated infection and preferably is selected from a catheter-associated infection, an infection associated with endotracheal tubes, an infection associated with voice prostheses, an infection associated with soft tissue fillers wherein said soft tissue fillers can be permanent or semi-permanent.

11. The use according to any one of claims 1 to 10, wherein a step of debridement is to be included in addition to the administration of Afabicin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof in combination with the at least one further agent.

12. The use according to claims 8, 9, 10 or 11, wherein the medical implant is to be exchanged in addition to the administration of Afabicin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof in combination with the at least one further agent.

13. The use according to claim 12, wherein the Afabicin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof in combination with the at least one further agent is to be administered prior to and/or after the step of exchanging the medical implant, and wherein said administration is preferably carried out prior to and after the step of exchanging the medical implant.

14. The use according to any one of claims 1 to 13, wherein the Afabicin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof is to be administered intravenously, orally, parenterally and/or topically and/or transdermally.

15. The use according to any one of claims 1 to 14, wherein the Afabicin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof is to be administered in a first stage intravenously and in a second stage orally.

16. The use according to any one of claims 1 to 15, wherein the at least one further agent is to be administered orally, parenterally, transdermally, intravenously and/or topically.

17. The use according to claim 12 or 13, wherein the medical implant is to be removed in a first step, the Afabicin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof in combination with the at least one further agent is to be administered intravenously in a second step, a new medical implant is to be introduced in a third step, Afabicin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof in combination with the at least one further agent is to be administered intravenously in a fourth step, and Afabicin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof in combination with the at least one further agent is to be administered orally in a fifth step.

18. Use of Daptomycin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof, in the manufacture of a medicament for treating bacterial infections involving biofilm that preferably contains *staphylococcus* bacteria, wherein the Daptomycin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof is to be administered with Afabicin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof according to the use as defined in any one of claims 1 to 17.

19. Use of Vancomycin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof, in the manufacture of a medicament for treating bacterial infections involving biofilm that preferably contains *staphylococcus* bacteria, wherein the Vancomycin or a pharmaceutically

acceptable salt, hydrate, solvate or polymorph thereof is to be administered with Afabicin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof according to the use as defined in any one of claims 1 to 17.

20. Use of Clindamycin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof, in the manufacture of a medicament for treating bacterial infections involving biofilm that preferably contains *staphylococcus* bacteria, wherein the Clindamycin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof is to be administered with Afabicin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof according to the use as defined in any one of claims 1 to 17.

21. Pharmaceutical composition for use in a method of treating bacterial infections involving biofilm that preferably contains *Staphylococcus* bacteria, the pharmaceutical composition comprising Afabicin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof and at least one further agent or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof selected from the group consisting of Daptomycin and/or Vancomycin and/or Clindamycin and/or a pharmaceutically acceptable salt, hydrate, solvate or polymorph of any of these agents.

22. Kit for use in a method of treating bacterial infections involving biofilm that preferably contains *Staphylococcus* bacteria, wherein the kit contains Afabicin or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof and at least one further agent or a pharmaceutically acceptable salt, hydrate, solvate or polymorph thereof selected from the group consisting of Daptomycin and/or Vancomycin and/or Clindamycin and/ or a pharmaceutically acceptable salt, hydrate, solvate or polymorph of any of these agents.