



Staphylococcus aureus (MSSA clinical strains) Catheter-associated biofilm infection

Procedure Summary

- Immunocompetent BALB/c mice, eight weeks old females
- Clinical Methicillin-susceptible *Staphylococcus aureus* (MSSA) strains (S14, S31 or S39)
- Cutaneous and subcutaneous incision to place 1cm-long catheter
- Bacterial challenge onto catheter
- Reference compound: Cloxacillin (IP)

Experimental readouts

- Bacterial counts on catheter – evaluation of biofilm
- Weight loss
- Survival rate
- Clinical score
- Detection of resistant mutants

Optional Services

- Microscopy (staining of catheter parts)
- Pharmacokinetics

Literature / reference

- Tasse *et al.*, Pathog. Dis. 2016. « Preliminary results of a new antibiotic susceptibility test against biofilm installation in device associated infections : the Antibiofilmogram®. »
- Internal data

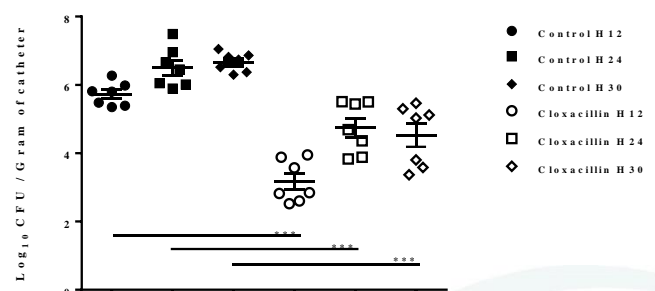
Animal Welfare

- Each experimental protocol is approved by the local ethics committee for animal experimentation of Grand Campus Dijon (Burgundy, France) and performed in accordance to the current recommendations of the European Institute of Health EU Directive 86/609

Facilities

- These assays are performed at our BSL2 laboratory / zootechnical center in Dijon, France

Bacterial load in Log₁₀ CFU / g of catheter in *Staphylococcus aureus* S39-infected mice, treated or not with cloxacillin, in the model of catheter-associated infection (p<0.05*, p<0.01**, p<0.001***).



Our scientific team will readily accommodate client-specific alterations and will provide expert advice and guidance for your efficacy studies

For more information please contact : info@vivexia.fr