

# Could Bacteriophage Therapy Be Effective for Periprosthetic Joint Infection?

The efficacy of bacteriophage therapy as adjunctive treatment in periprosthetic joint infections (PJIs) is unproven

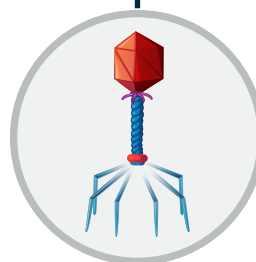


129 patients with chronic hip/knee PJI after revision surgery

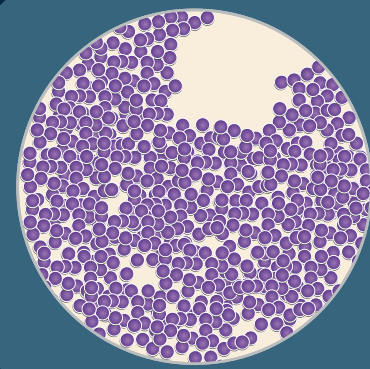
Key outcomes:



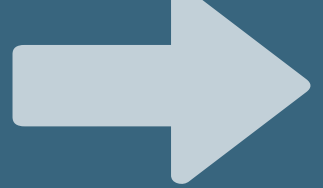
Categorization of causative pathogens



Testing preserved isolates for growth inhibition by bacteriophage library



*Staphylococcus aureus*



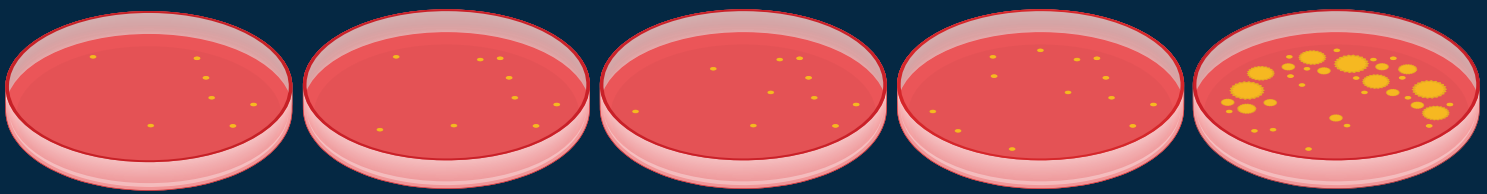
Most common pathogen causing PJI (33/129 cases)

## Analysis of bacterial growth inhibition by bacteriophage

**29**  
*S. aureus*  
samples analyzed

**97%**  
of planktonic  
isolates exhibited  
growth inhibition  
by at least  
1 bacteriophage  
strain

**24%**  
showed  
slow-growing  
secondary colonies  
with no adequate  
bacteriophage growth  
inhibition



Inhibition in 4/5 colonies



The efficacy of bacteriophage treatment may depend on the different phenotypic states of clinical isolates from PJIs, prompting further study