

9^{ème} journée CRIOAc Lyon – Mardi 27 juin 2023

Phagothérapie dans les IOA: protocole PhagoDAIR I

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 @FerryLyon 

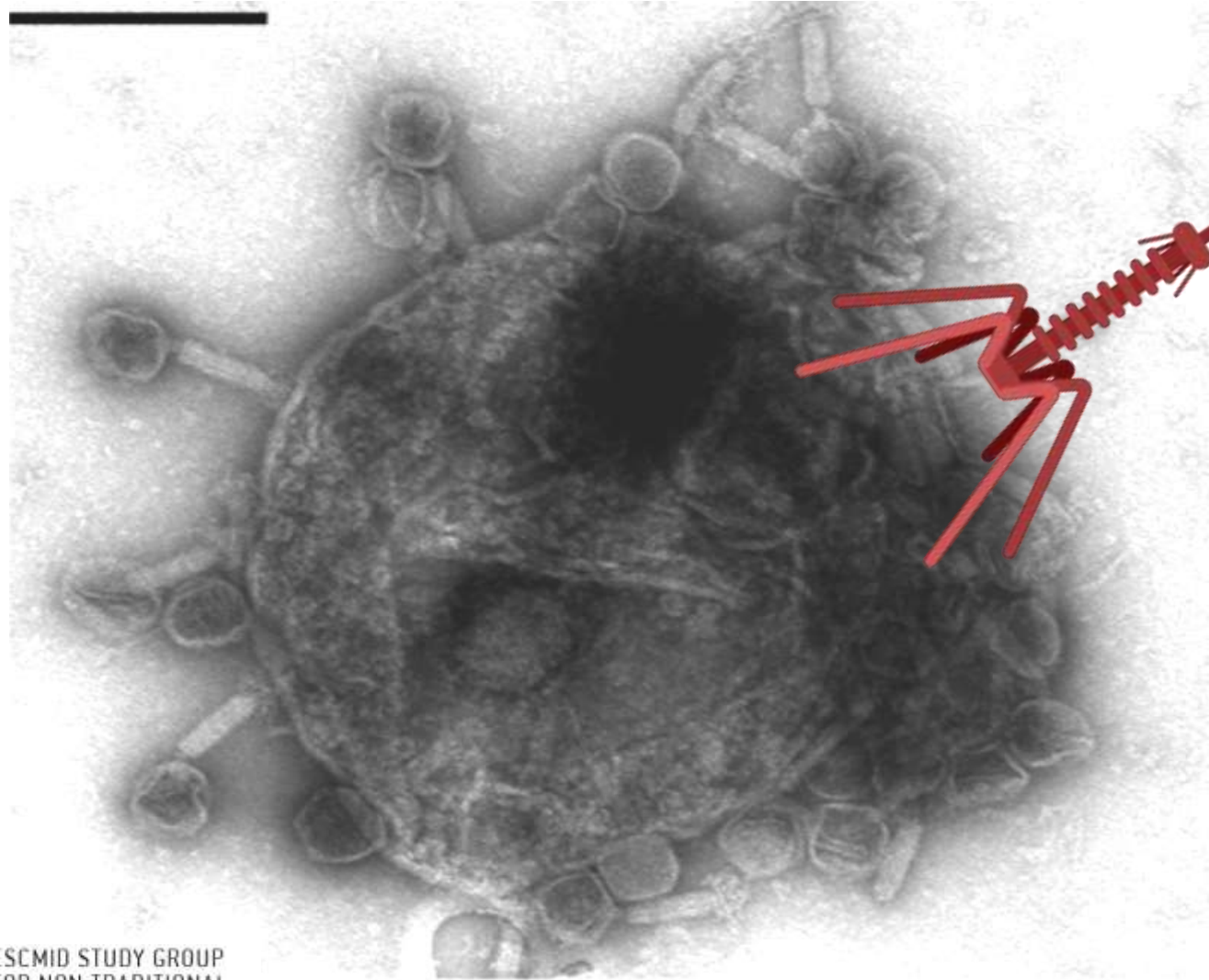
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Centre International de Recherche en Infectiologie, CIRI, Inserm U1111, CNRS UMR5308, ENS de Lyon, UCBL1, Lyon, France
Clinical officer ESCMID Study group for Non-Traditional Antibacterial therapy (ESGNTA)
Centre de Référence des IOA complexes de Lyon (CRIOAc Lyon)



Bacteria have also their pandemic!



Non-**T**raditional
Antibacterial
therapy



PHAGE_{in}**LYON**
Clinic

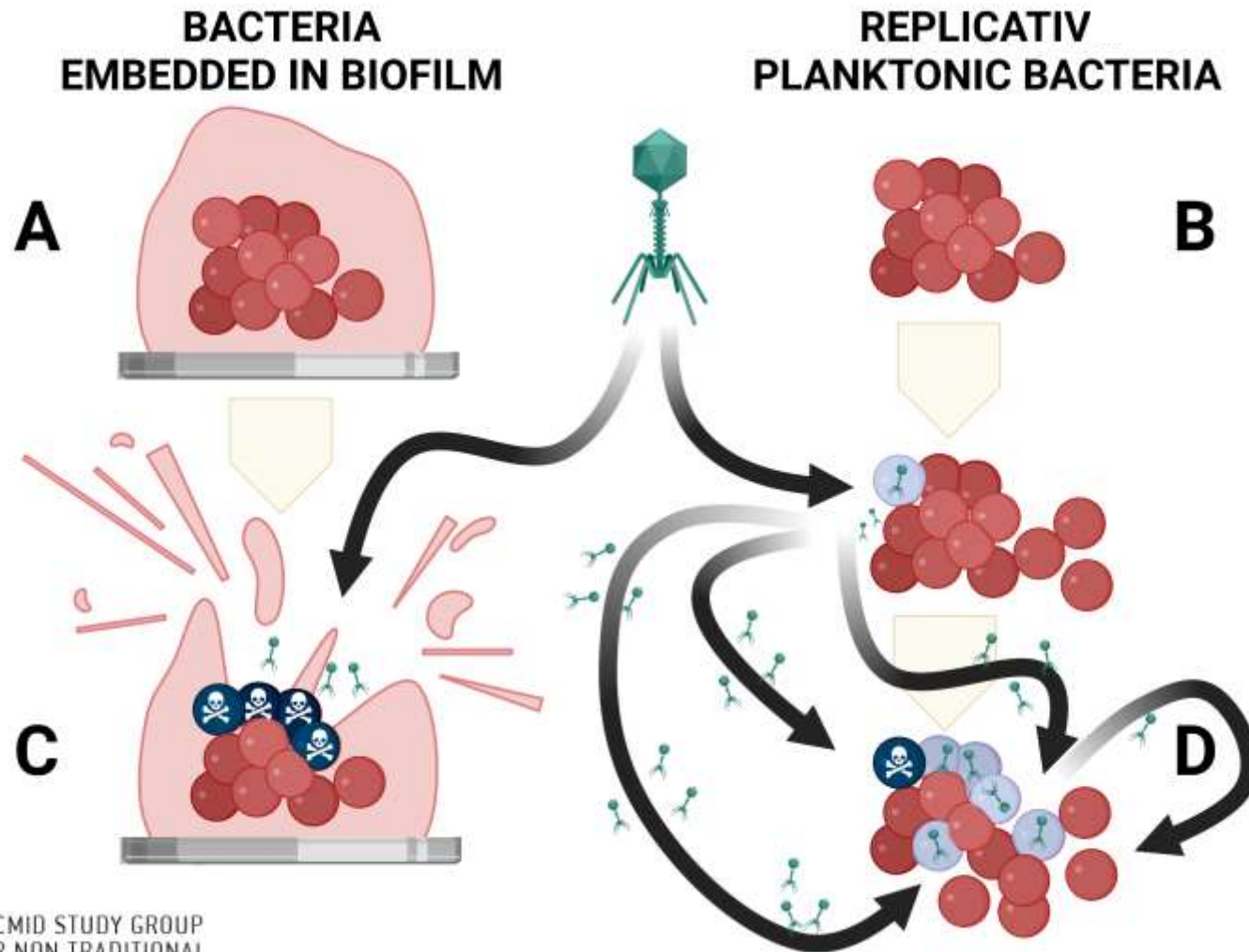


Merabishvili et al. *PLoS ONE* 2009

Bacteria have also their pandemic!



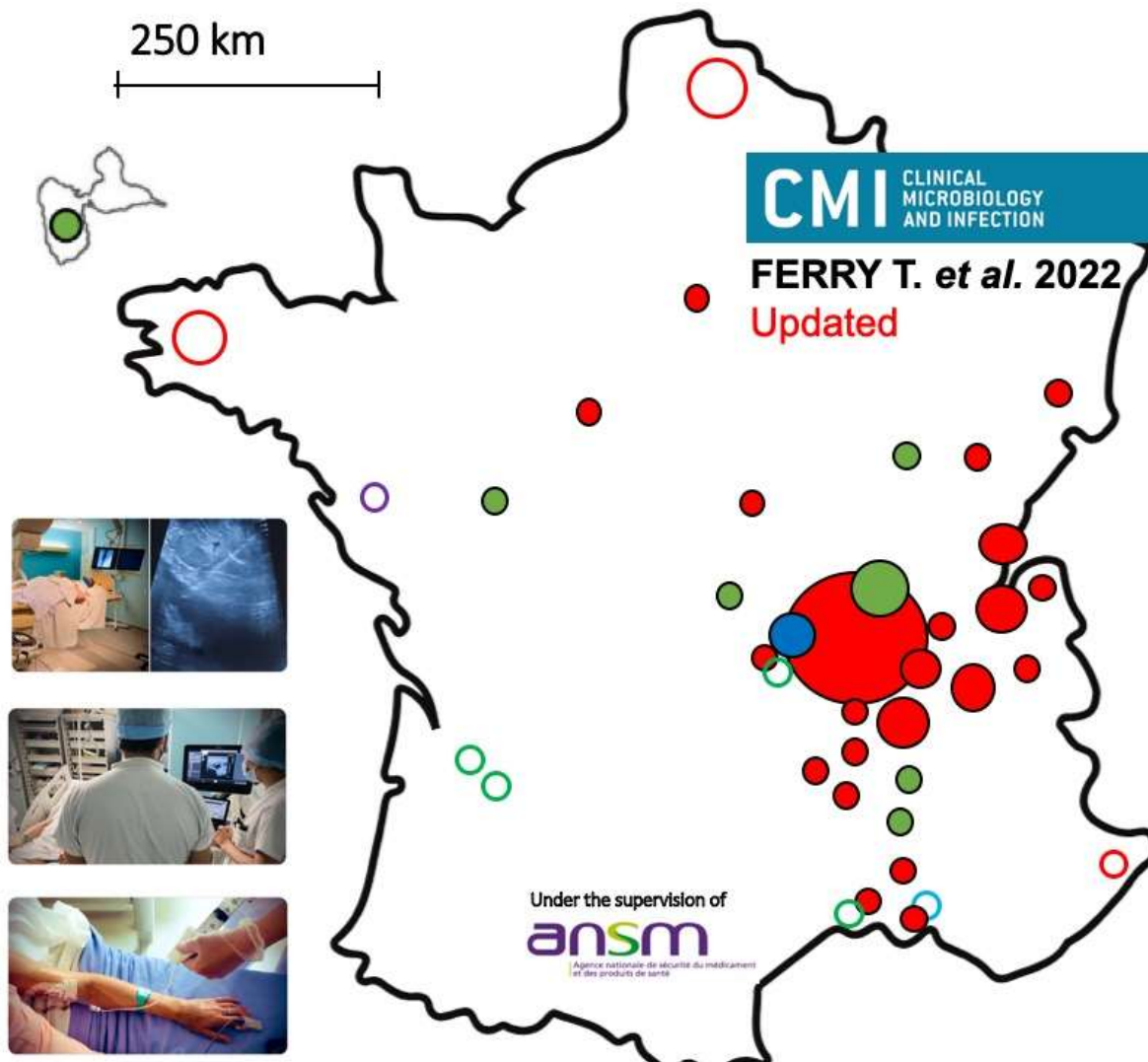
Non-**T**raditional
Antibacterial
therapy



PHAGE_{in}**LYON**
Clinic

Phagothérapie dans les IOA : le programme PHAGEinLYON Clinic

Implementation of a Phage Therapy Center in a CRIOAc



55 patients in Lyon since 2017
~80% of the whole patients treated in France



- 51 with phages from **PHERECYDES** PHARMA
- 4 with phages from **HMRA**



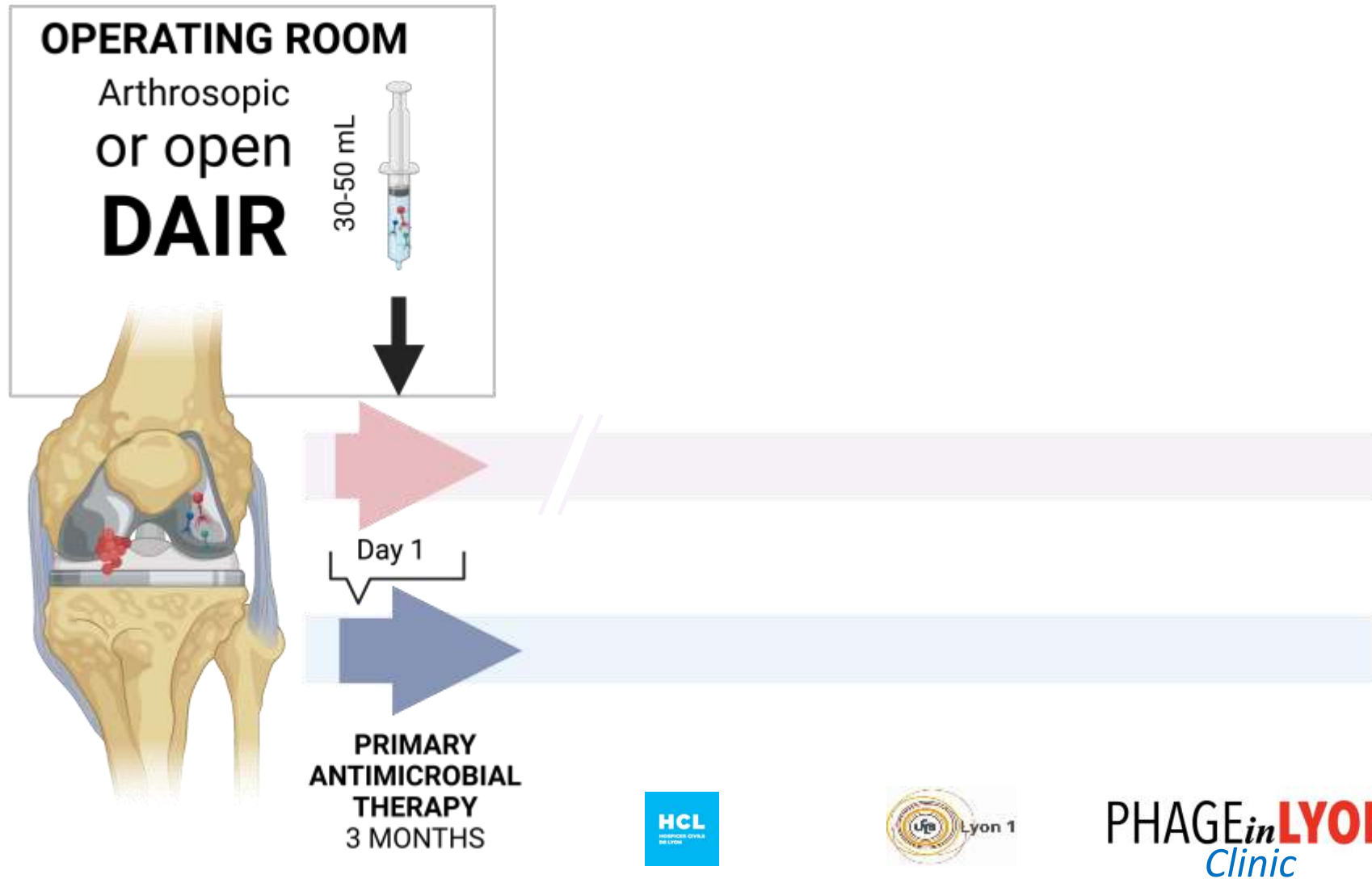
- 43 **BJI** (including 35 **PJI**)
- 9 **endocarditis/vascular graft**
- 3 **lung infections** (VAP + bacteremia, pneumonia in lung graft bronchiectasia, cystic fibrosis exacerbation)

+ 13 patients managed outside Lyon ○
including 1 in  and 1 in 

●○ **BJI** ●○ **Endocarditis** ●○ **Pneumonia**

Cohort A (before 2019)

6 patients received 1-shot of active phages during open (n=4) or arthroscopic (n=2) DAIR



Cohort A (before 2019)

6 patients received 1-shot of active phages during open (n=4) or arthroscopic (n=2) DAIR

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#PhagoDAIR
procedure



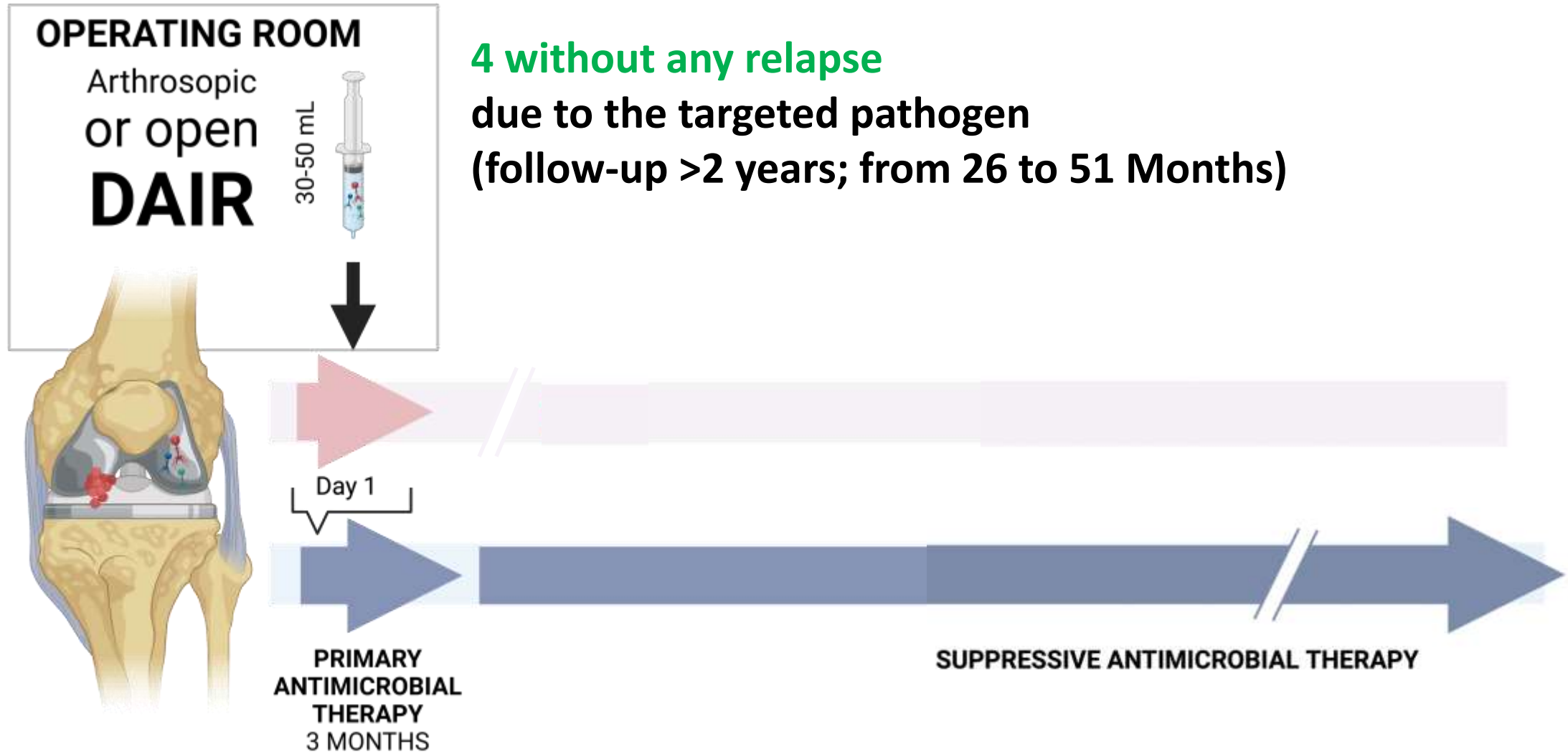
Day 1

PRIMARY
ANTIMICROBIAL
THERAPY
3 MONTHS



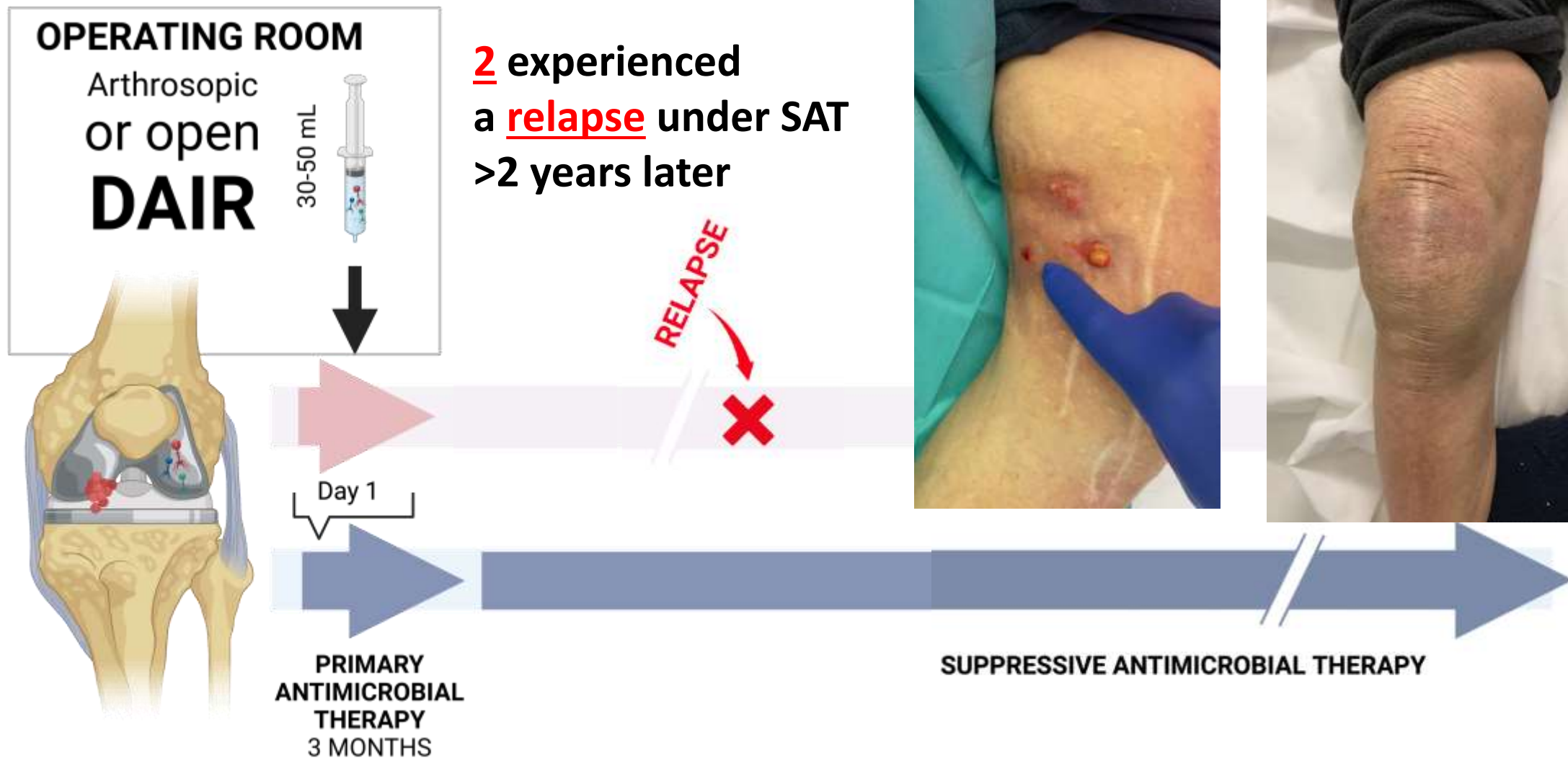
Cohort A (before 2019)

6 patients received 1-shot of active phages during open (n=4) or arthroscopic (n=2) DAIR

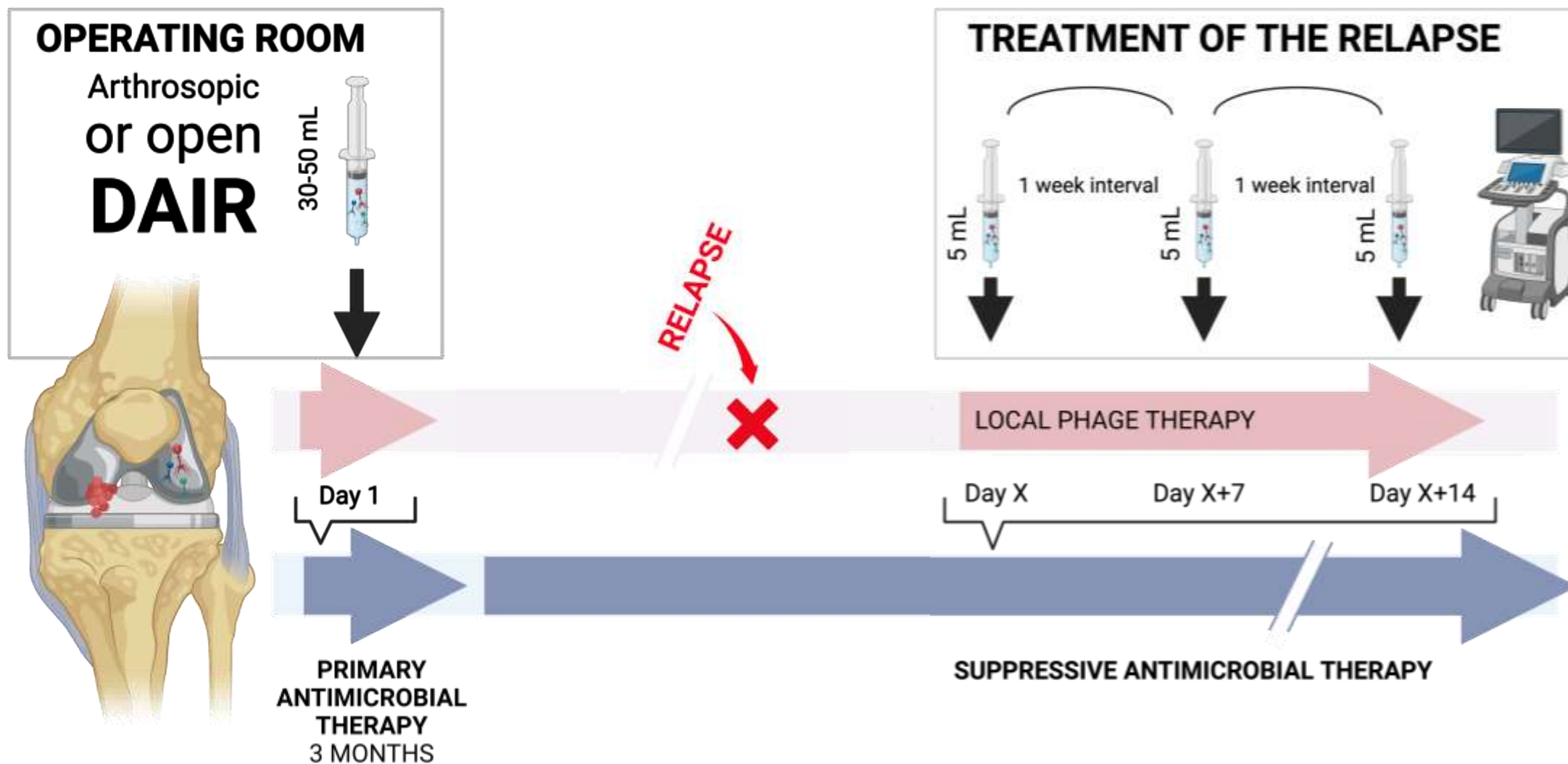


Cohort A (before 2019)

6 patients received 1-shot of active phages during open (n=4) or arthroscopic (n=2) DAIR



Cohort A (before 2019)





>2 years after  under 
+ SAT (cefalexin + doxycycline)



> 2 years after PhagoDAIR
under cefalexin



Phagothérapie dans les IOA : l'essai thérapeutique PhagoDAIR I

Promotion Phaxiam (Ex Pherecydes)

PhagoDAIR I

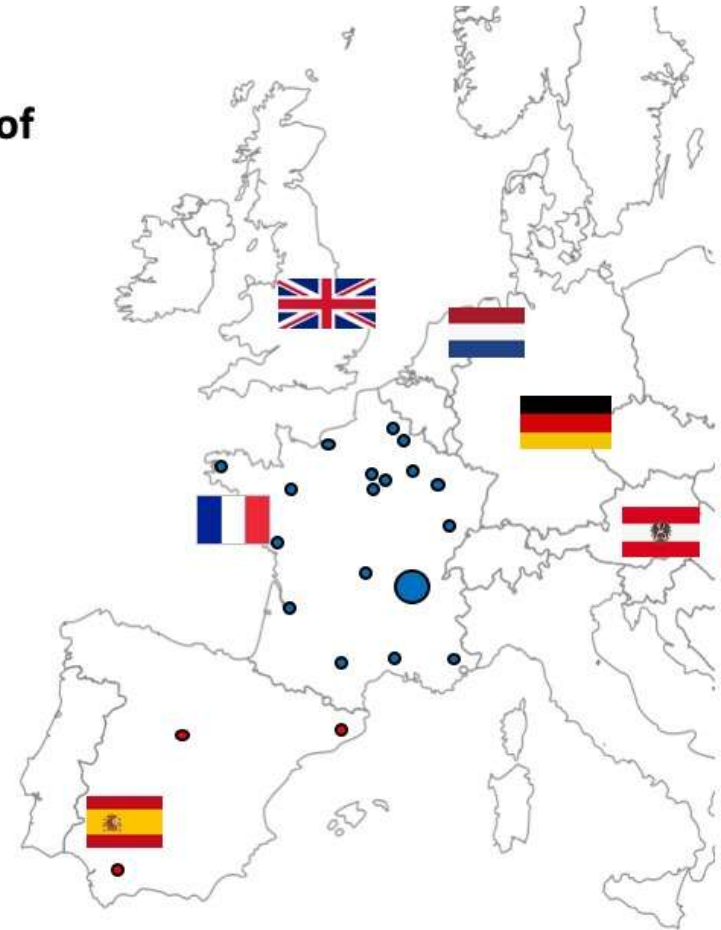
A Pilot, Multicenter, Randomized, Non-Comparative, Double-Blind Study of
Phage Therapy in Patients with Hip or Knee PJI due to *S. aureus*
Treated with DAIR and Antibiotic Therapy

Inclusion Criteria

1. *S. aureus* monomicrobial knee or hip PJI with clinical signs of infection with indication of DAIR and Suppressive Antibiotics Therapy (SAT).
2. Phagogram displaying the susceptibility of the strain to at least one of the anti-*Staphylococcus aureus* bacteriophages

Primary Objective

To estimate the rate of clinical control of infection at Week 12±2 which will allow to calculate the sample size for future comparative studies.



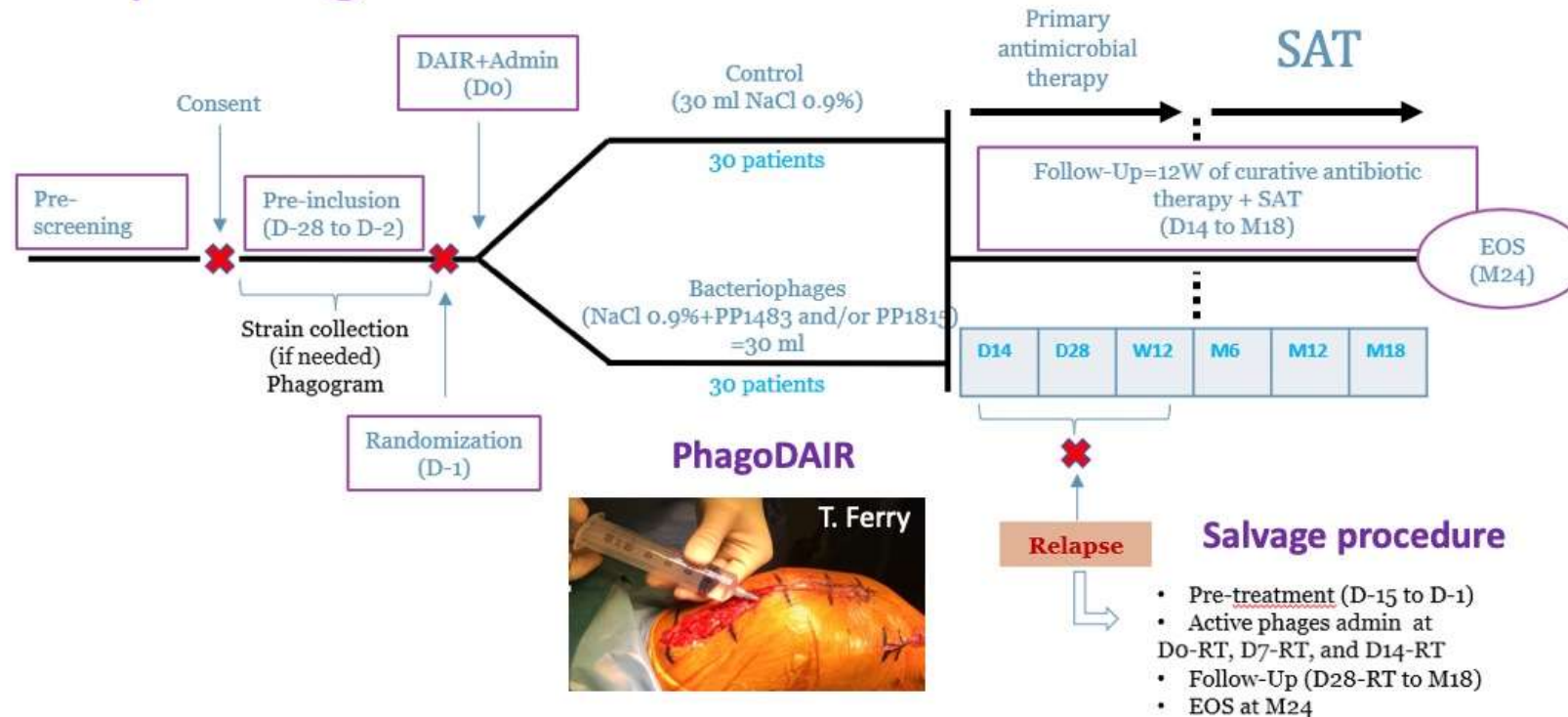
Phagothérapie dans les IOA : l'essai thérapeutique PhagoDAIR I

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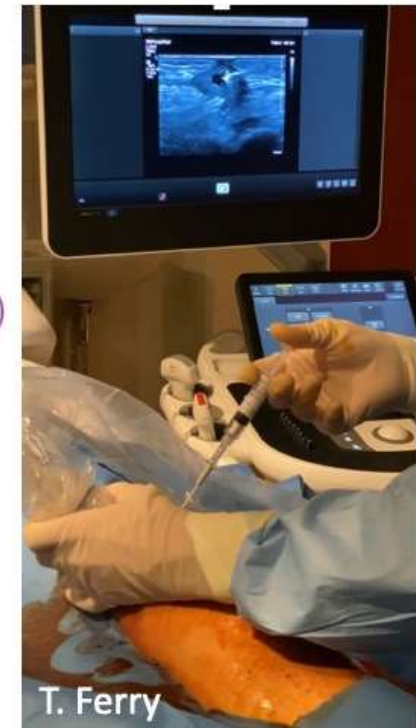
PhagoDAIR I

A Pilot, Multicenter, Randomized, Non-Comparative, Double-Blind Study of
Phage Therapy in Patients with Hip or Knee PJI due to *S. aureus*
Treated with DAIR and Antibiotic Therapy

Study design



Salvage procedure



Phagothérapie dans les IOA : l'essai thérapeutique PhagoDAIR I

Promotion Phaxiam (Ex Pherecydes)

Bras	Voie D'administration	Plan d'administration	Traitement de Référence + + Antibiothérapie suppressive (SAT) (voie orale)
Contrôle (n=30)	Injection intra articulaire après le DAIR	D0: DAIR + 30 ml de solution NaCl 0.9% à la fin de la procédure chir OU D0: 5ml de solution NaCl 0.9% 14±2j après le DAIR par injection intra articulaire echoguidée	Au total 12 semaines d'antibiothérapie curative , avec 5 à 15 jours d'administration IV, puis voie orale et en incluant la rifampicine selon les antécédents cliniques du patient, les contre- indications, les interactions médicamenteuses, l'antibiogramme et les recommandations.. + SAT après 12 semaines d'antibiothérapie curative selon les antécédents cliniques du patient, les contre-indications, les interactions médicamenteuses, l'antibiogramme et les recommandations : cefalexine, cotrimoxazole, cyclines (minocycline ou doxycycline) Cette liste n'est pas exhaustive.
Phages (n=30)		D0: DAIR + bacteriophages* actifs dilués dans NaCl 0.9% pour un volume total de 30 ml à la fin de la procédure chir OU D0: bacteriophages* actifs dilués dans NaCl 0.9% pour un volume de 5ml à 14±2j après le DAIR par injection intra articulaire echoguidée	

Clinical case

76-year-old man

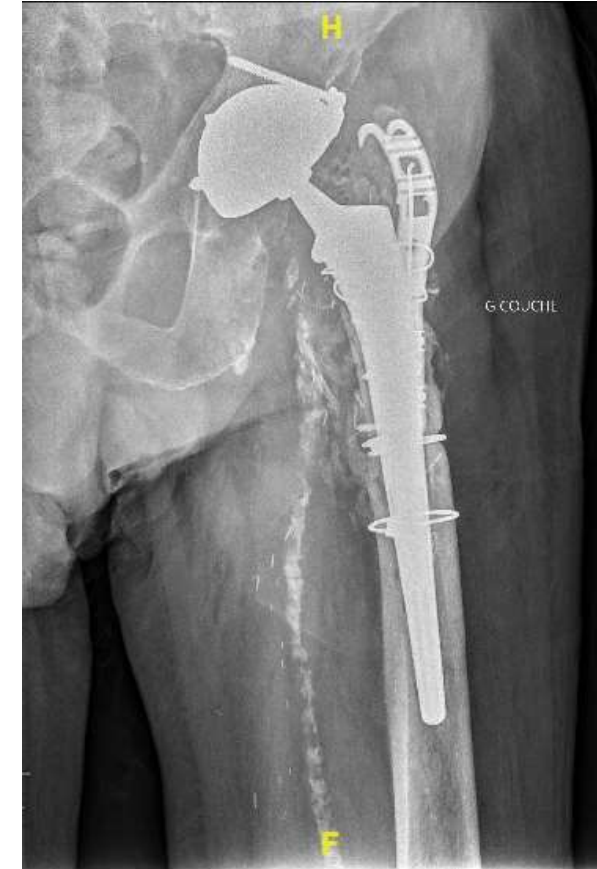
Bladder cancer, Diabetes

Heart failure, arrhythmia

Chronic kidney injury

Mesenteric ischaemia

Left hip prosthesis, 1-stage exchange



Clinical case

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Clinical case

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Bladder cancer, Diabetes

Heart failure, arrhythmia

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Left hip prosthesis, 1-stage exchange

Failure followed by DAIR and SAT

Iterative failure due to *S. aureus*

Severe pain, Bedridden



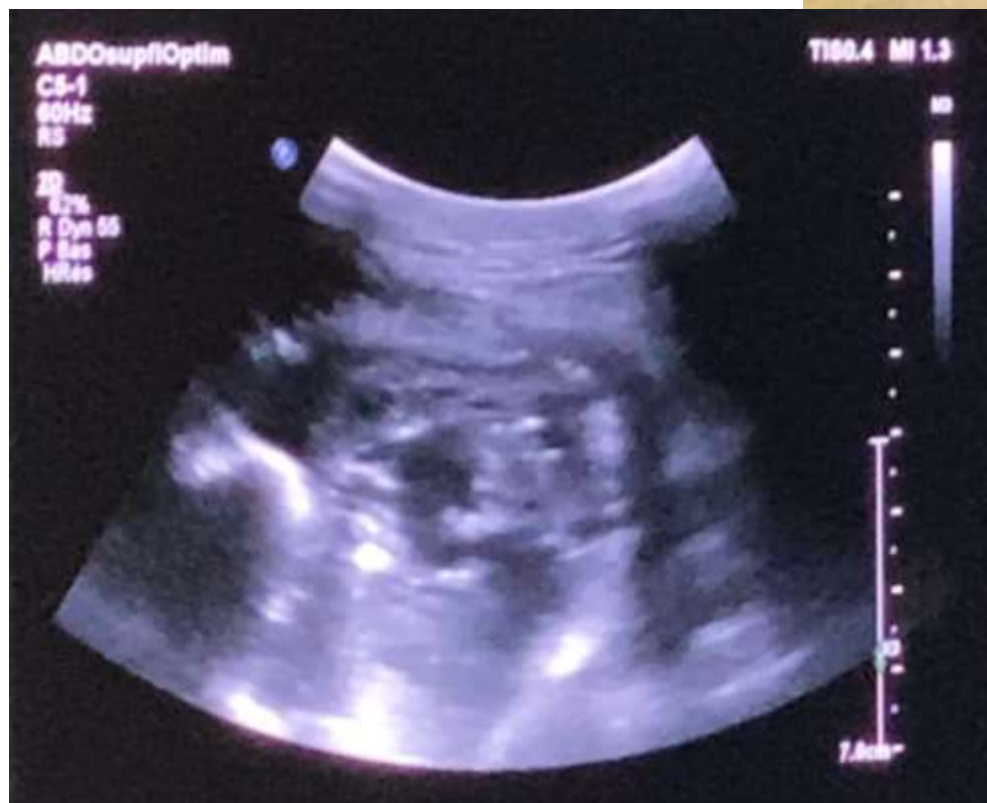
Clinical case



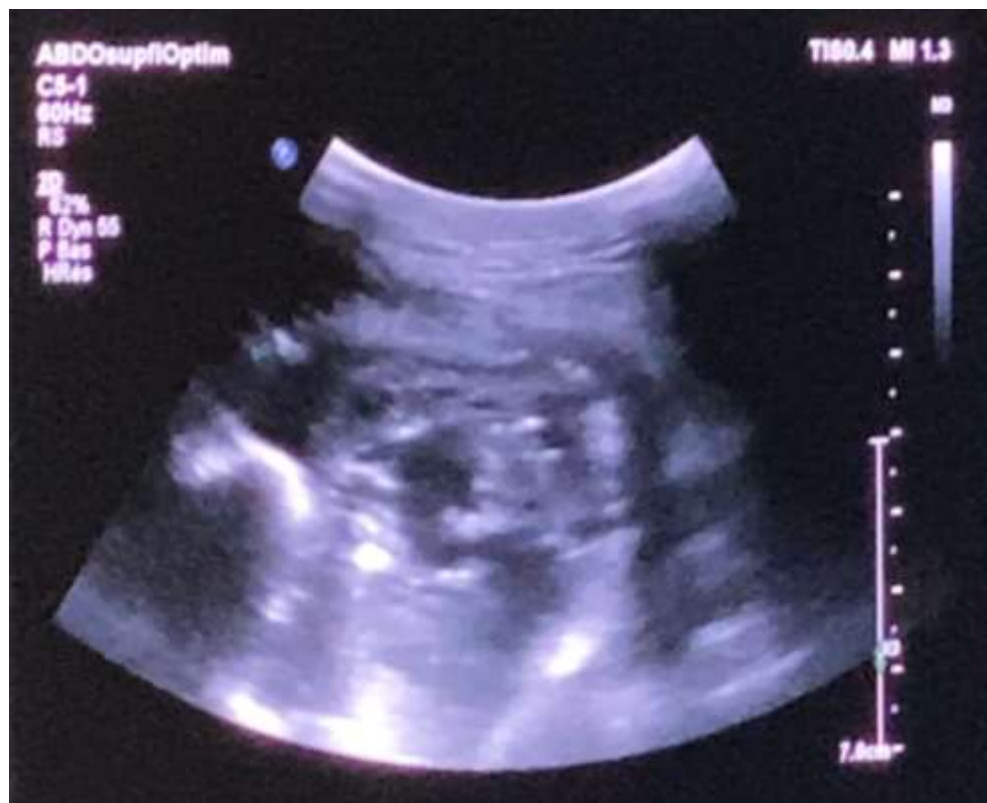
Courtesy C. FOISSEY



Clinical case



Clinical case



Clinical case



PHAGEⁱⁿLYON
Clinic

Clinical case

54-year-old woman

Bilateral prosthetic knee infection

Due to *S. aureus*

1-stage exchange for the right

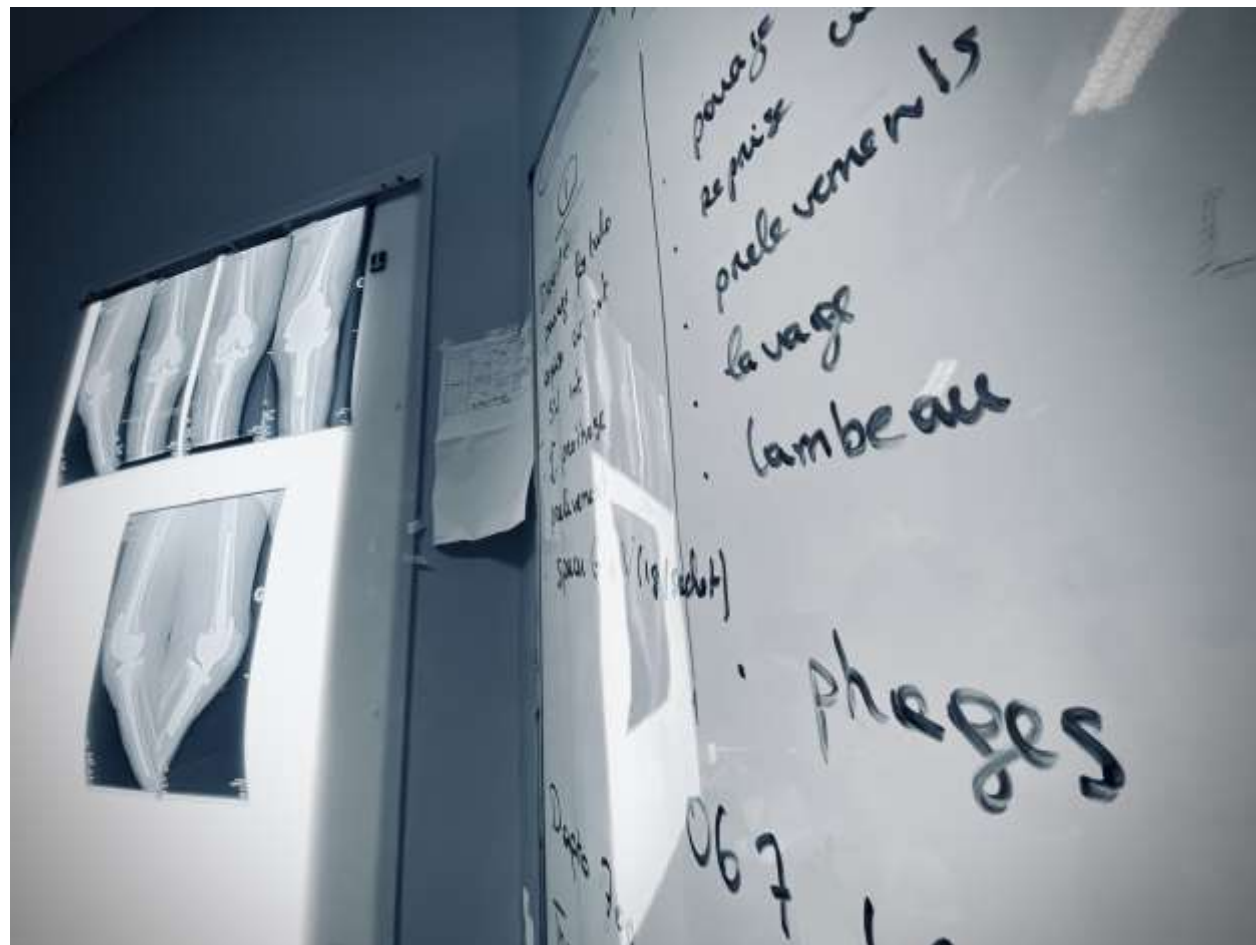
PhagoDAIR I for the left

Severe pain, flossum

Bedridden



Clinical case





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Clinical case



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Phagothérapie dans les IOA : l'essai thérapeutique PhagoDAIR I

Promotion Phaxiam (Ex Pherecydes)

RECRUTEMENT FRANCE

CRIOAc	Investigateur Principal	Recrutement	Administration Phages/Placebo	Rechute	Sortie d'étude
LYON	Pr Ferry	8	7 (Fin du DAIR) 1 (DAIR + 14j)	1	1
TOURCOING	Pr Senneville	1	Fin du DAIR	0	0
RENNES	Dr Patrat-Delon	1	Fin du DAIR	0	1
NIMES	Pr Sotto	1	DAIR + 14j	0	0
BORDEAUX	Dr Dauchy	1	DAIR + 14j	0	0
POITIERS	Dr Le Moal	1	DAIR + 14j	0	0
BREST	Pr Ansart	1	Fin du DAIR	0	0
TOURS	Dr Lacasse	1	Fin du DAIR	0	0

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Infections ostéo-articulaires : Lyon devient le centre expert national pour la phagothérapie

Essai PhagoDAIR I

s complexes
s, utilisant

Essai CF-301-108

Le Progrès - 23 févr. 2023 à 17:51 | mis à jour le 23 févr. 2023 à 18:08 - Temps de lecture : 2 min



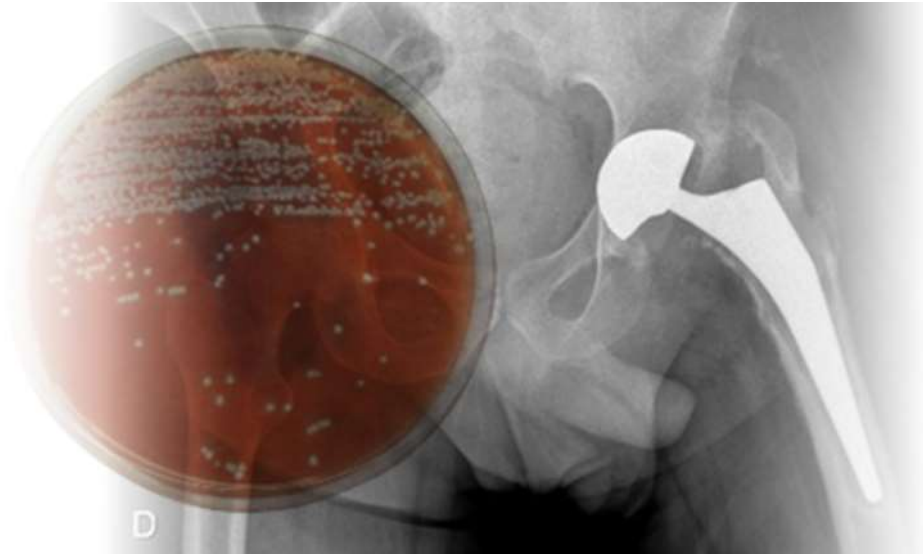
RCP CRIOAc
Thérapie innovante

HCR.REFERENCE-IOA@chu-lyon.fr

Dédiée aux thérapies
non traditionnelles (OMS)



<http://www.crioac-lyon.fr>



- Published cases
- Open acces studies in pdf
- All thesis in pdf
- All recommendations
- **Newsletter**



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