



Welcome to the 2021 EHS Hybrid Congress in Lille

14th Congress
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Hip Society
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SHP Toulouse



10-11 SEPTEMBER 2021
Lille Grand Palais - Lille - France & ONLINE



Guest
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Goals and duties in a reference center for infections

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Infectious and Tropical Diseases Unit, Croix-Rousse Hospital , Hospices Civils de Lyon, Claude Bernard Lyon1 University, Lyon
Centre International de Recherche en Infectiologie, CIRI, Inserm U1111, CNRS UMR5308, ENS de Lyon, UCBL1, Lyon, France
Centre de Référence des IOA complexes de Lyon (CRIOAc Lyon)



Conflict of interest



Consultant, research grant, invitation in congress:

MSD, Pfizer, Debiopharm, Menarini
Heraeus, Atlangam, MaaT Pharma

Investigator coordinator of Clinical trials:

Pherecydes Pharma, Bonesupport

No direct remuneration



A reference center?



What is the “French” definition of “Reference (Referral) Center”?

Set up of CRIOAc(s) and CRIOAc network in France in 2008

Funded by the French Health Ministry



Centre de Reference des Infections Ostéo-Articulaires complexes

Referral Center for the Management of Complex Bone and Joint Infection

Network of regional centers with dedicated activity to manage complex BJI

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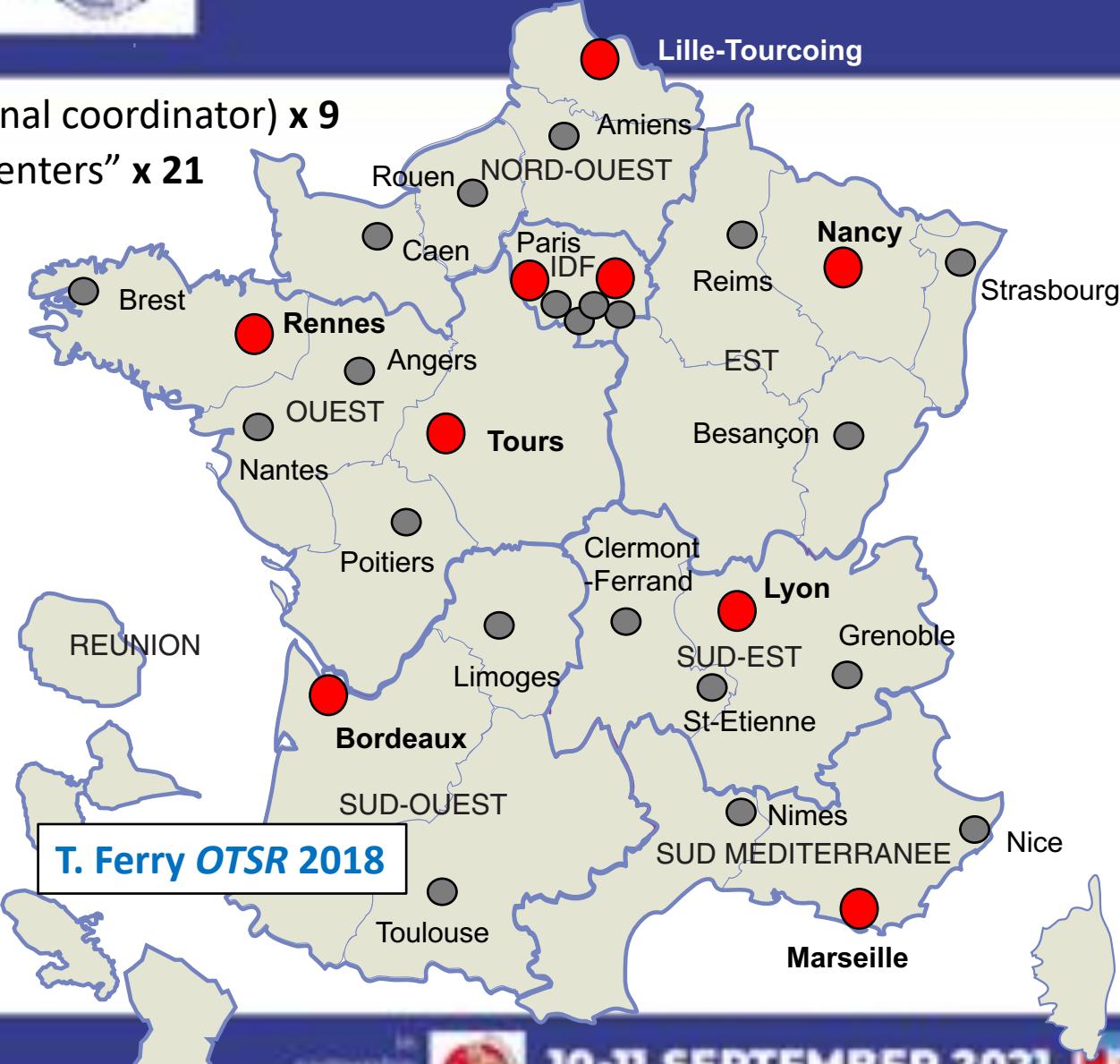
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CRIOAc network

- CRIOAc (regional coordinator) x 9
- "Associated centers" x 21



**Labellisation by the
French health ministry
of Regional centers**

CRIOAc

Centre de Référence
des Infections Osteo-
Articulaires complexes

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CRIOD's Goals and duties

Based on instruction DGOS/PF2 n° 2010-466



- CRIOD (regional coordinator) x 9
- “Associated centers” x 21



- Reply to requests for advice
- Manage simple and complex BJI
- Organise multidisciplinary meetings
- Improve the care pathway

CRIOD (regional coordinator) x 9
“Associated centers” x 21



● CRIOD (regional coordinator) x 9

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- Evaluate practices, produce recommendations for good practice
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 - To teach at the regional and national levels, by participating directly in the organisation of the national diploma on BJI (set up in 2014)

CRIOD (regional coordinator) x 9

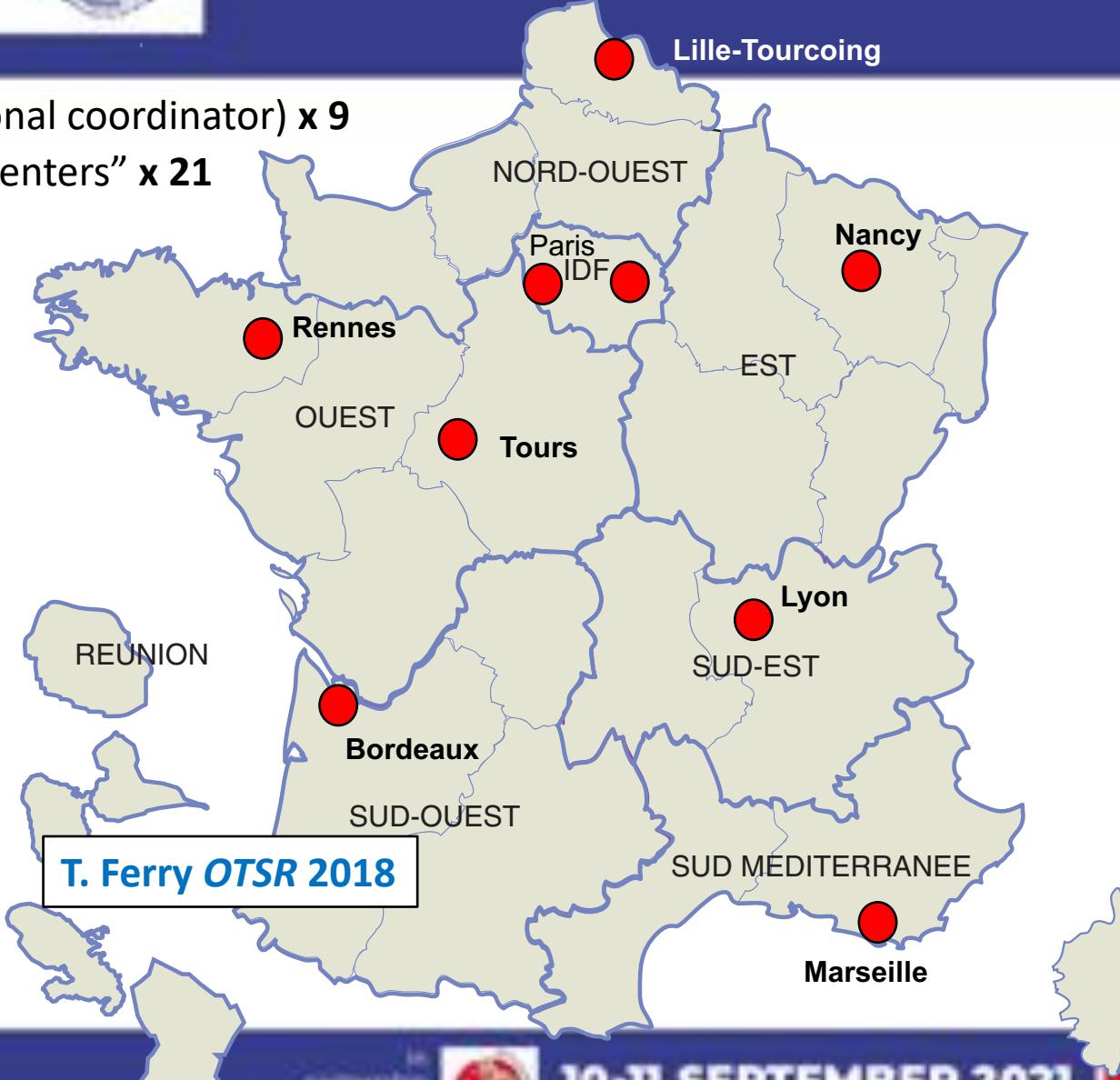
"Associated centers" x 21

CRIOD (regional coordinator) x 9



CRIOAc network

- CRIOAc (regional coordinator) x 9
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G4 HOPITAUX AMIENS CAEN LILLE ROUEN UNIVERSITAIRES

CRIOAC
Grand Est

CENTRES DE RÉFÉRENCE DES INFECTIONS
OSTÉO-ARTICULAIRES COMPLEXES
CRIOAC
ÎLE DE FRANCE

CENTRES DE RÉFÉRENCE
POUR LES INFECTIONS OSTÉO-ARTICULAIRES COMPLEXES
CRIOGO

CRIOAC
LYON

Crioac
GSO

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SFR Tourcoing



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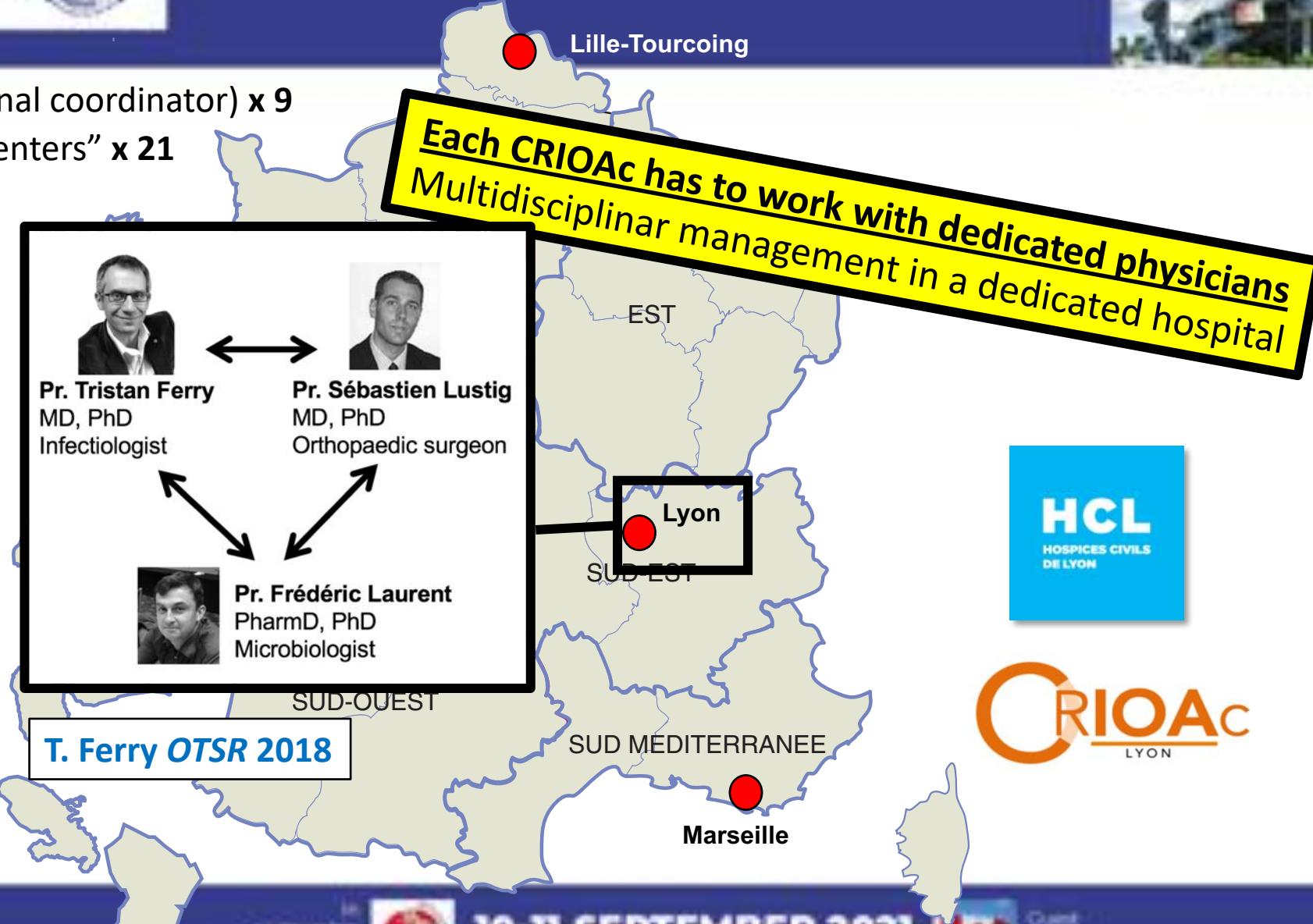
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CRIOAc network



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2013

Sud-Est - OR - Hôpices civils de Lyon - RCP Chirurgie Septique

Nom : [REDACTED] E, 72 ans

Contexte de la RCP Synthèse clinique Localisation/Microbiologie/Chirurgie Antibiothérapie Finalisation et validation de la RCP

Episode 1 Premier épisode Rechute

Motif :

- Stratégie médico-chirurgicale
- Bilan pré-thérapeutique
- Réévaluation en cours de traitement
- Deuxième temps de chirurgie après infection

Passage en recours/deuxième avis : Oui Non

Précédentes fiches RCP

Intitulé RCP	Date de passage	OR PDF
HCL	15/05/2014	
HCL	20/03/2014	
HCL	15/01/2014	
HCL	05/12/2013	

[4] < Page 1 / 5 sur 5 > [?] Page courante 5 - 5 sur 5

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Contenu de la RCP	Synthèse clinique	Localisation/Microbiologie/Chirurgie	Antibiothérapie	Finalisation et validation de la RCP
Age : 72	Poids actuel : 89 kg	Taille : 175 cm	IMC : 29,06	
Dosage CRP : 25 mg/l.				
Score ASA :	3 - Patient avec anomalie systémique sévère			
Créatininémie : 120 µmol/L	Clairance de la créatinine : 52,5 ml/min/1,73m²			
Comorbidités ou terrains interférants :				
<input checked="" type="checkbox"/> Insuffisance rénale <input type="checkbox"/> Insuffisance hépatique <input type="checkbox"/> Insuffisance cardiaque <input type="checkbox"/> Polypathologie <input type="checkbox"/> Immunodépression <input type="checkbox"/> Diabète				
Justification :				
<input type="text"/>				
Facteurs de risque :				
<input checked="" type="checkbox"/> Traitement immunosupresseur <input type="checkbox"/> Infection par le virus VIH ou par les virus des hépatites <input type="checkbox"/> Cirrhose <input type="checkbox"/> Néoplasie évolutive <input type="checkbox"/> Chimiothérapie anti-cancéreuse <input type="checkbox"/> Maladies auto-immunes et rhumatismes inflammatoires chroniques <input type="checkbox"/> Rhumatisme inflammatoire chronique <input checked="" type="checkbox"/> Drépanocytose <input checked="" type="checkbox"/> Hémophlie <input type="checkbox"/> Transplantation d'organe <input type="checkbox"/> Obésité morbide (IMC > 30) <input type="checkbox"/> Tabagisme actif <input type="checkbox"/> Diabète avec complication(s) <input type="checkbox"/> Autre :				
Si Autre, préciser :				
<input type="text"/>				
Alergie connue aux antibiotiques : <input type="checkbox"/>				
Résumé clinique :				
Patient vue à 3 semaines de l'implantation de la prothèse arthrodèse. Antibiothérapie probabiliste par TAZOCILLINE et LINEZOLIDE. Patiente sous TRIFLUCCAN au moins jusqu'à l'automne 2014. Cultures positives à Staphylocoque épidermidis multi résistant (2 prélevements positifs uniquement en milieu liquide). Localement bonne cicatrisation.				



Microbiologie

 Ajouter

Site

Genou

'Document site' créé le 09/12/2013 à 11:04 par Tristan FERRY

Site : Genou

Côté : Gauche Droit

Cadre nosologique :

- Prothèse
 Pseudarthrose
 Matériel d'ostéosynthèse
- Ostéite
 Arthrite
 Autres

Microbiologie

Microbiologie : Documenté fiable Non documenté Non contributif

Germes(s)

Staphylococcus epidermidis

 Avec résistance

Commentaire :

PEC Chirurgicale

Acte :

-- Sélectionner --

Remarques :

-- Sélectionner --

- Ablation de matériel
- Abstention chirurgicale contre indication
- Abstention chirurgicale non-indication
- Abstention chirurgicale refus du patient
- Amputation
- Arthrodèse
- Biopsie
- Changement prothèse 1 temps
- Changement prothèse 2 temps
- Changement prothèse partiel
- Espaceur

No surgery
 Debridement
 DAIR
 Explantation 1-stage exchange
 Explantation 2-stage exchange

X Fermer Enregistrer



IOA complexe : Non Oui

Critères de complexité

Critères :

- Echec de traitement antérieur
- Terrain
- Programme chirurgical
- Microbiologie

Etablissement de prise en charge :

Liste des établissements

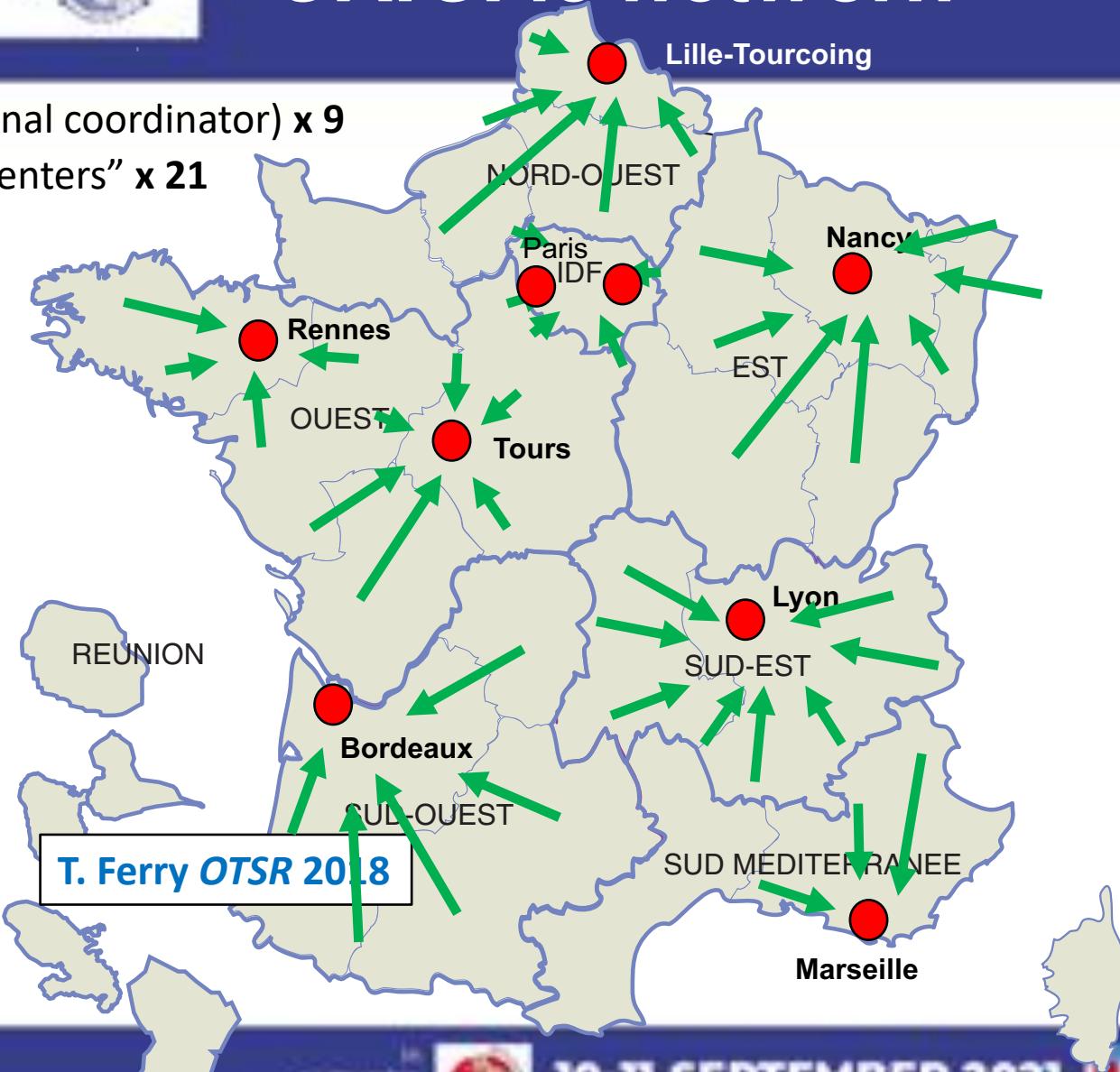
Criteria of complexity

- **Host :**
 - Patients with severe comorbidities that limit the therapeutic program
 - Patients with severe allergy
- **Microbiological criteria :**
 - Difficult-to-treat micro-organisms
- **Surgical criteria :**
 - Difficult-to-heal surgical site
 - Difficult-to-treat bone and/or soft-tissue
- **Related to the hospital stay :**

If the case is validated as « Complex »
Surgery hospital stay is paid 12% more

CRIOAc network

- CRIOAc (regional coordinator) x 9
- “Associated centers” x 21



Recruitment of
the most complex
patients

In the CRIOAc
network

To increase the
knowledge and
skill of dedicated
surgeons and
physicians



Start in 2010/2013...



Does it work ?

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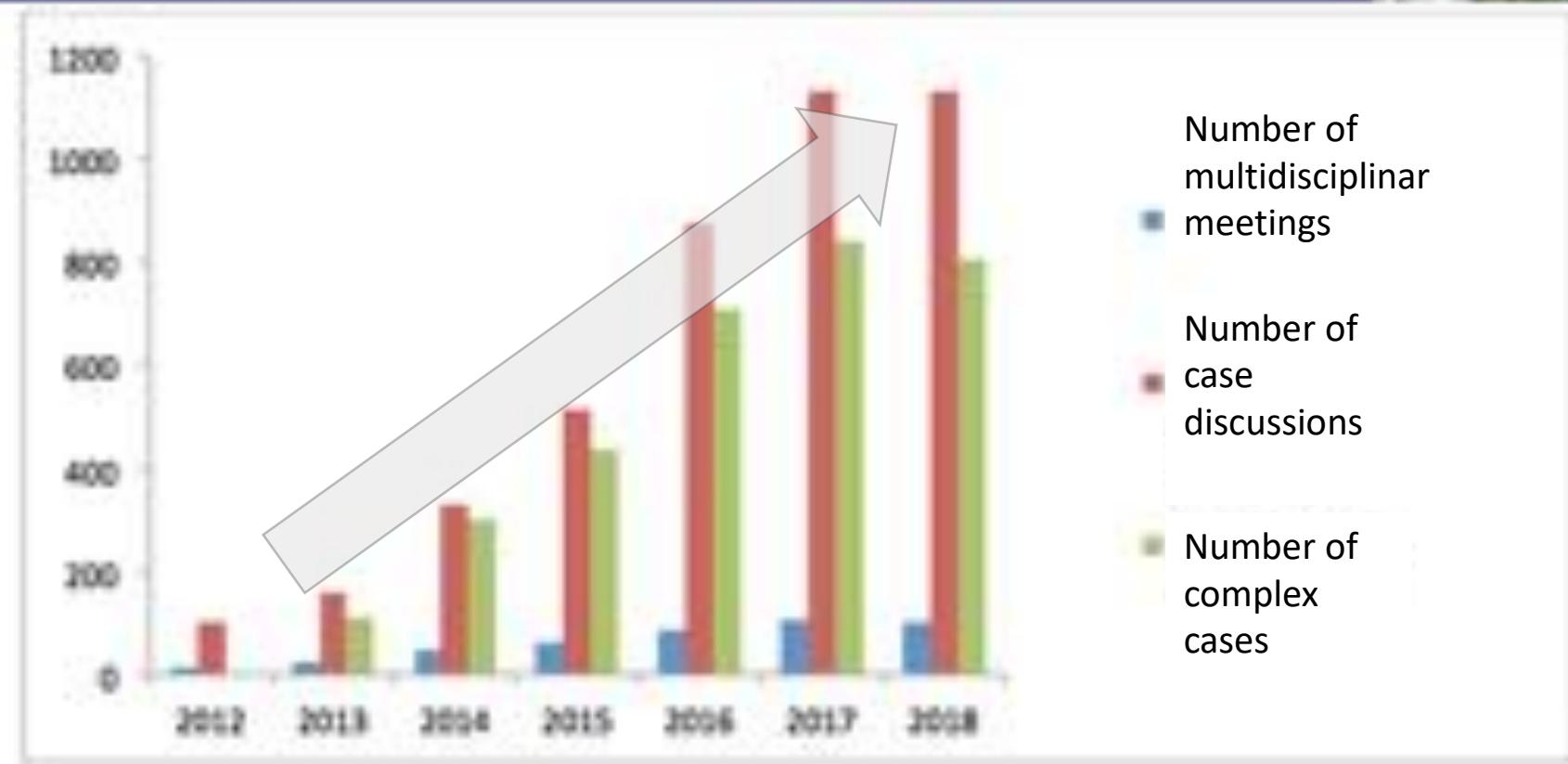
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Quatrième
CANADA



Recruitment in CRIODC Lyon



Nombre de dossiers discutés en réunions de concertations pluridisciplinaires (RCP) au CRIODC de Lyon





Each Monday Multidisciplinair meeting *in visio*



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Quint
Hausen
Gesellschaft



Multidisciplinar meetings

Each Thursday
Multidisciplinar meeting
in hospital



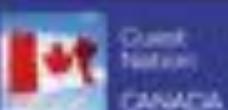
**“One-day”
Hospital unit**



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Place of residence of patients managed in Lyon



2019

2020



Activity at the national level

Original article

The CRIOfac healthcare network in France: A nationwide Health Ministry program to improve the management of bone and joint infection



Activity report at the national level of the dedicated Secured website

Ferry T. et al.

Orthopaedics & Traumatology:
Surgery & Research (OTSR) 2018



CRIOD's Goals and duties

Based on instruction DGOS/PF2 n° 2010-466



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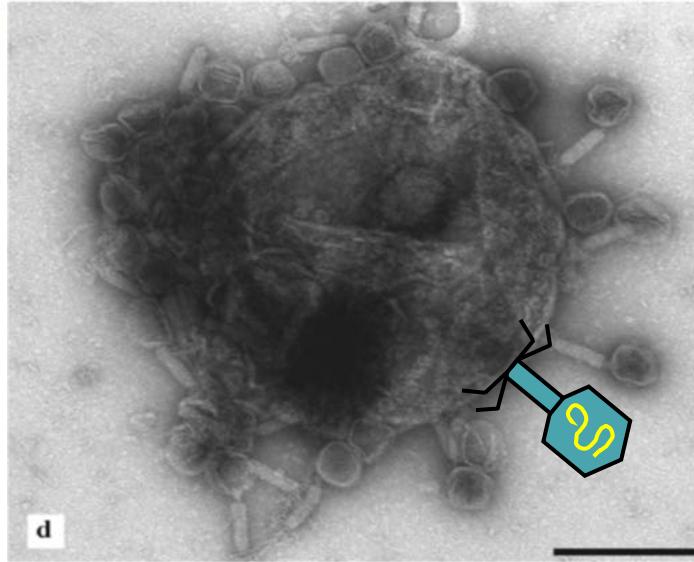
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CRIOD (regional coordinator) x 9



Phage Therapy as Adjuvant to Conservative Surgery and Antibiotics to Salvage Patients With Relapsing *S. aureus* Prosthetic Knee Infection

Tristan Ferry^{1,2,3,4*}, Camille Kolenda^{2,3,4,5}, Cécile Batailler^{2,3,6},
Claude-Alexandre Gustave^{2,3,4,5}, Sébastien Lustig^{2,3,6}, Matthieu Malatray^{3,6}, Cindy Fevre⁷,
Jérôme Josse^{2,3,4,5}, Charlotte Petitjean⁷, Christian Chidiac^{1,2,3,4}, Gilles Leboucher⁸ and
Frédéric Laurent^{2,3,4,5} on behalf of the Lyon BJI Study group

FRONTIERS MEDICINE 2021



FERRY T. OFID 2018



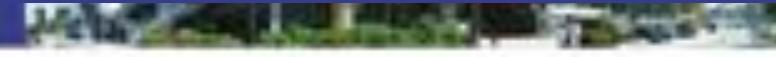
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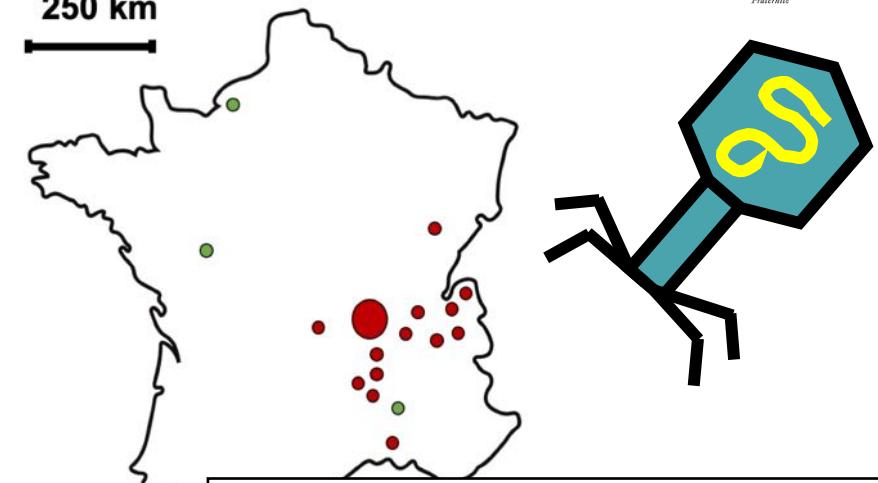


Quatrième
Nationale
CANADA



PHAGE*in*LYON PHAG-one

250 km



Purified academic phages
Usable in the next 5 years

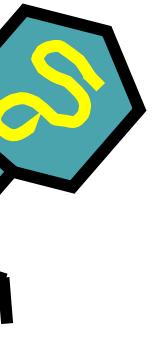


FRI PHARM



FONDATION
HCL
HOSPICES CIVILS
DE LYON

MINISTÈRE
DE L'ENSEIGNEMENT
SUPÉRIEUR,
DE LA RECHERCHE
ET DE L'INNOVATION
*Liberté
Égalité
Fraternité*





- CRIODC (regional coordinator) x 9
- "Associated centers" x 21



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CRIODC Scientific committee 2019-2022

President: Pr. T. Ferry (Infectiologist; Lyon)
Pr. E. Senneville (Infectiologist; Lille-Tourcoing)
Pr. A. Stein (Infectiologist; Marseille)
Dr. S. Marmor (Orthopaedic Surgeon, Paris)
Pr. E. Steindel (Orthopaedic Surgeon; Brest)
Pr. D. Meynard (Orthopaedic Surgeon; Nancy)
Dr. P. Bemer (Microbiologist; Nantes)
Pr. V. Dubois (Microbiologist; Bordeaux)

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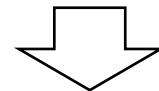
CRIODC (regional coordinator) x 9

CRIOAc network

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CRIOAC
National scientific committee
Promotes the research



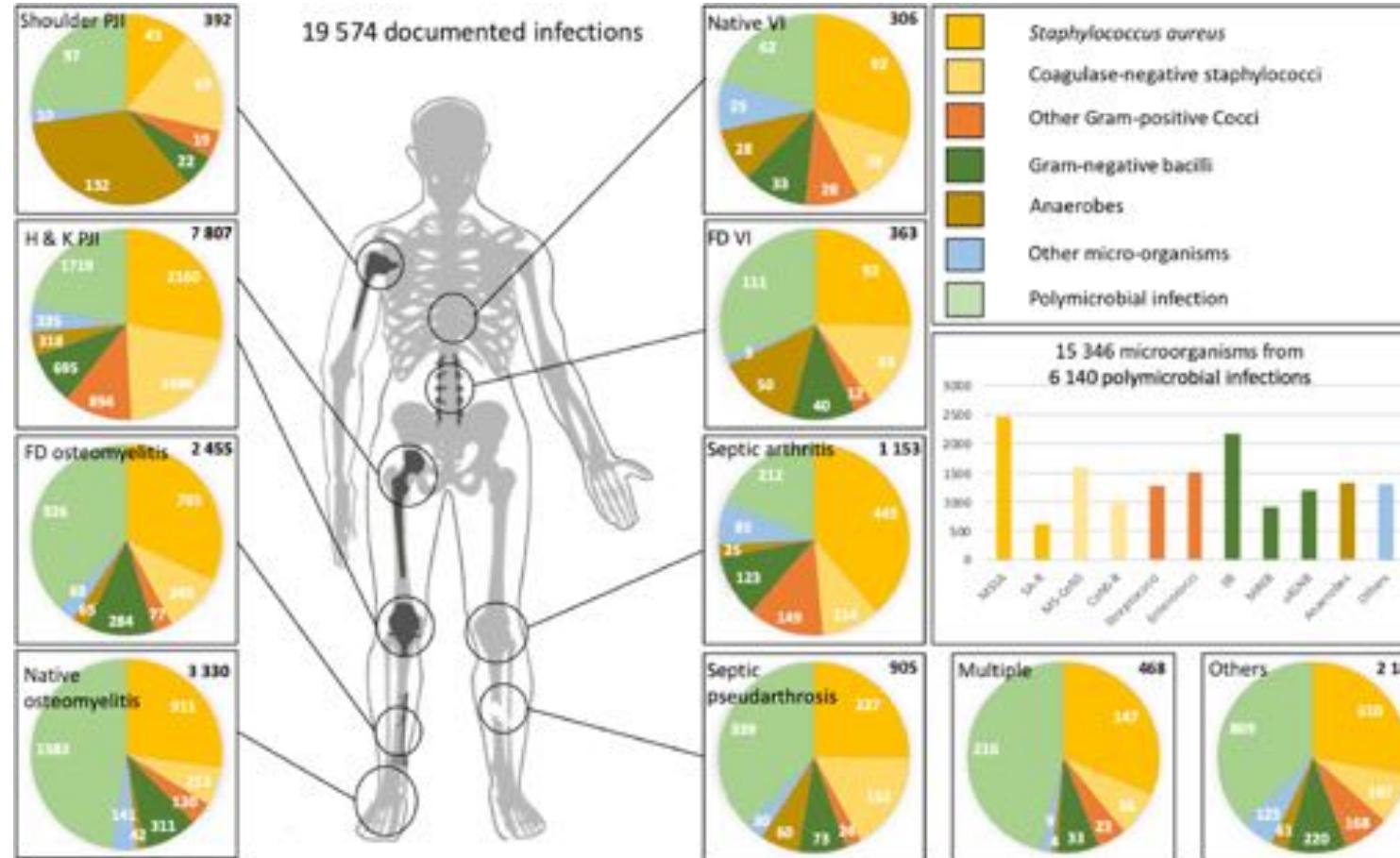
Website data extraction

Real life epidemiology
of complex BJI in France



Epidemiology of complex bone and joint infections in France using a national registry: The CRIOAc network

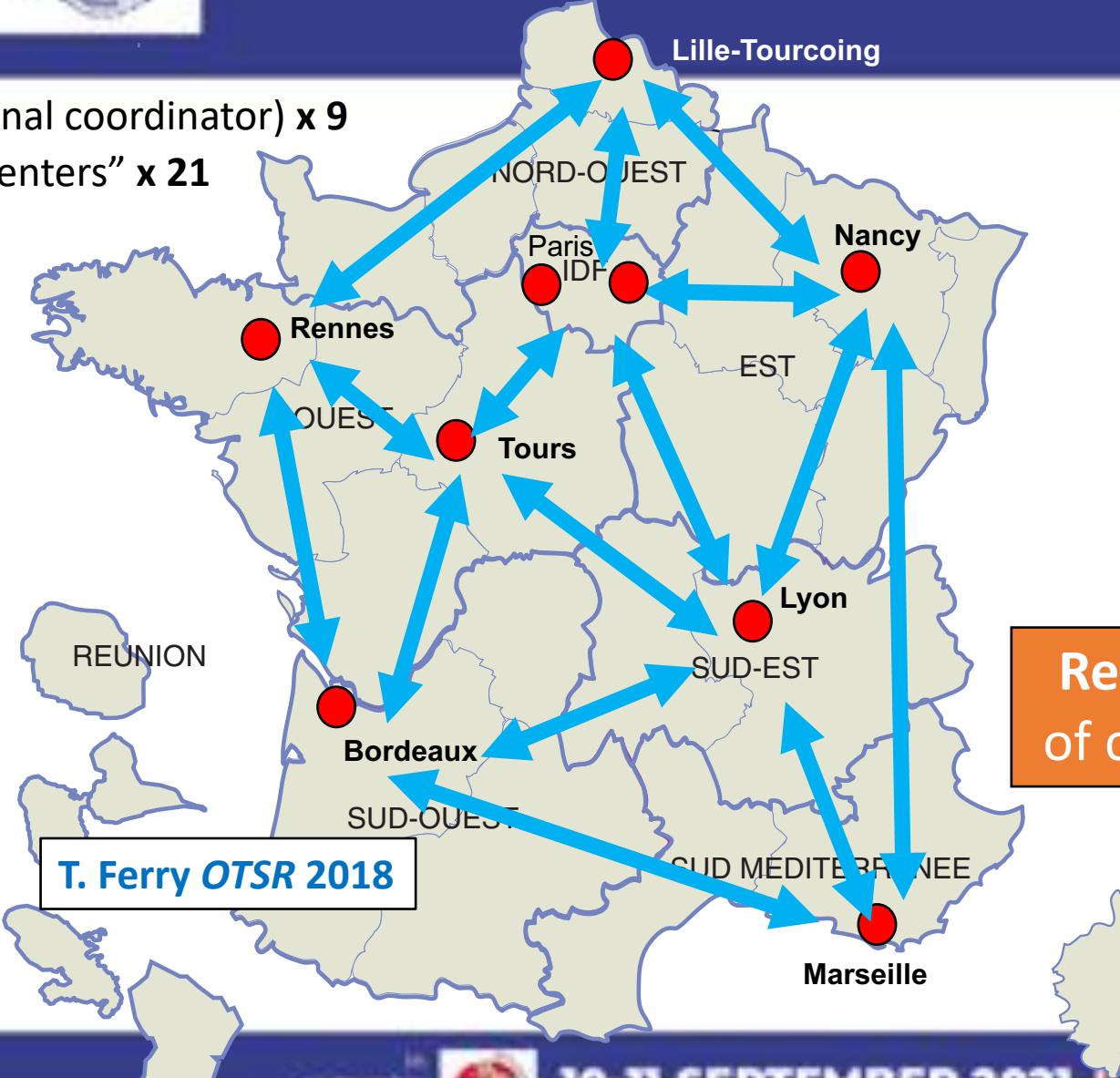
Lemaignen et al. J Infect 2021



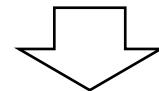


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CRIOAC
National scientific committee
Promotes the research



Website data extraction

Real life epidemiology
of complex BJI in France

Feasibility analysis
(clinical trials)

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Joint
Meeting
CANADA



- Centre de Reference des Infections Ostéo-Articulaires complexes
Referral Center for the Management of Complex Bone and Joint Infection
- Several goals and duties that are well defined
- Funded by the French Health Ministry
- Definitely improves care, education and research



Protheseninfekte

Brauchen wir spezielle Revisionszentren für Protheseninfekte nach dem Vorbild Frankreichs?

BERLIN Periprothetische Infektionen sind eine der schwerwiegendsten Komplikationen in der Endoprothetik mit nachhaltigen Auswirkungen für den Patienten, das behandelnde Team und das Gesundheitssystem. Ein relevanter Einfluss auf den Therapieerfolg haben unter anderem die Wahl eines adäquaten Therapiekonzepts, die Expertise des behandelnden Teams und Gegebenheiten der Klinik.

Do we need special centers for prosthesis infections based on the French model?

Zusätzlich werden in die Behandlung auch Radiologen, Anästhesisten, Rheumatologen und Physiotherapeuten mit einbezogen.

Staatliche Referenzzentren für Muskuloskeletale Infektionen (CRIoAc)
→ interdisziplinäre Diskussion und Entscheidung im Medical board (ähnlich Tumorkonferenz)

Michael Möller

Neben der Behandlung von Komplikationen ist eine weitere Aufgabe die Fortbildung der Ärzte.

Ab 2011 wurden in Frankreich zur Unterstützung der Referenzzentren

Abb. 1: Organisation und Ablauf der Behandlung von Patienten mit Gelenk- oder Knocheninfektion in Frankreich. Vorstellung der Patienten am Referenzzentrum erfolgt entweder direkt ambulant oder über eine staatlich geführte Webseite.



Lyon BJI Study group



Coordinator: Tristan Ferry

Infectious Diseases Specialists – Tristan Ferry, Florent Valour, Thomas Perpoint, Florence Ader, Sandrine Roux, Agathe Becker, Claire Triffault-Fillit, Anne Conrad, Cécile Pouderoux, Pierre Chauvelot, Paul Chabert, Johanna Lippman, Evelyne Braun

Surgeons – Sébastien Lustig, Elvire Servien, Cécile Batailler, Stanislas Gunst, Axel Schmidt, Elliott Sappey-Marinier, Quentin Ode, Michel-Henry Fessy, Anthony Viste, Jean-Luc Besse, Philippe Chaudier, Lucie Louboutin, Adrien Van Haecke, Marcelle Mercier, Vincent Belgaid, Aram Gazarian, Arnaud Walch, Antoine Bertani, Frédéric Rongieras, Sébastien Martres, Franck Trouillet, Cédric Barrey, Ali Mojallal, Sophie Brosset, Camille Hanriat, Hélène Person, Philippe Céruse, Carine Fuchsmann, Arnaud Gleizal;

Anesthesiologists – Frédéric Aubrun, Mikhail Dziadzko, Caroline Macabéo, Dana Patrascu;

Microbiologists – Frederic Laurent, Laetitia Beraud, Tiphaine Roussel-Gaillard, Céline Dupieux, Camille Kolenda, Jérôme Josse;

Imaging – Fabien Craighero, Loïc Boussel, Jean-Baptiste Pialat, Isabelle Morelec;

PK/PD specialists – Michel Tod, Marie-Claude Gagnieu, Sylvain Goutelle;

Clinical research assistant and database manager– Eugénie Mabrut

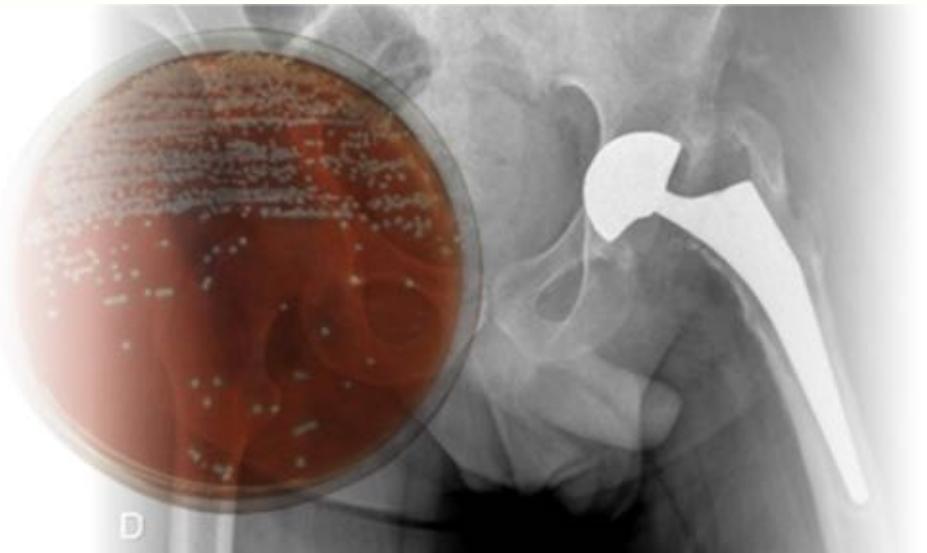


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- Published cases
- Open acces studies in pdf
- All thesis in pdf
- All recommendations
- Newsletter



 YouTube



[@CrioacLyon](https://twitter.com/CrioacLyon)

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Vème CRIOAc congress



Vème Congrès CRIOAc National



DIRECTION
GÉNÉRALE
DE L'OFFRE
DE SOINS



ESGIAI
European Society of Clinical Microbiology and Infectious Diseases



<http://crioac2021.univ-lyon1.fr>



Thank you!

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