





Séminaire BUA – 25/11/2022

Gestion multidisciplinaire des infections chirurgicales complexes

Suivi médico-chirurgical

Nathan Peiffer-Smadja


313 million
people undergo surgery every year ^[4]


SSI are considered the most frequent complication in surgical patients, being responsible for

38%

of all infections ^[5]

SSI


3%
75%


is associated with a mortality rate of 3%, and 75% of SSI-associated deaths are directly attributable to the SSI ^[7]


SSI increase the length of hospital stays by **3-20** days ^[4]

Costs of SSI are up to
\$10

billion annually ^[6]

**HAND HYGIENE IN SURGICAL SETTING:
KEY FACT**

UP TO 
31%
of patients will get a **surgical site infection**

Choosing Wisely – American College of Surgeons

Rien sur les infections chirurgicales ou l'antibiothérapie

Choosing Wisely – American College of Surgeons

Rien sur les infections chirurgicales ou l'antibiothérapie

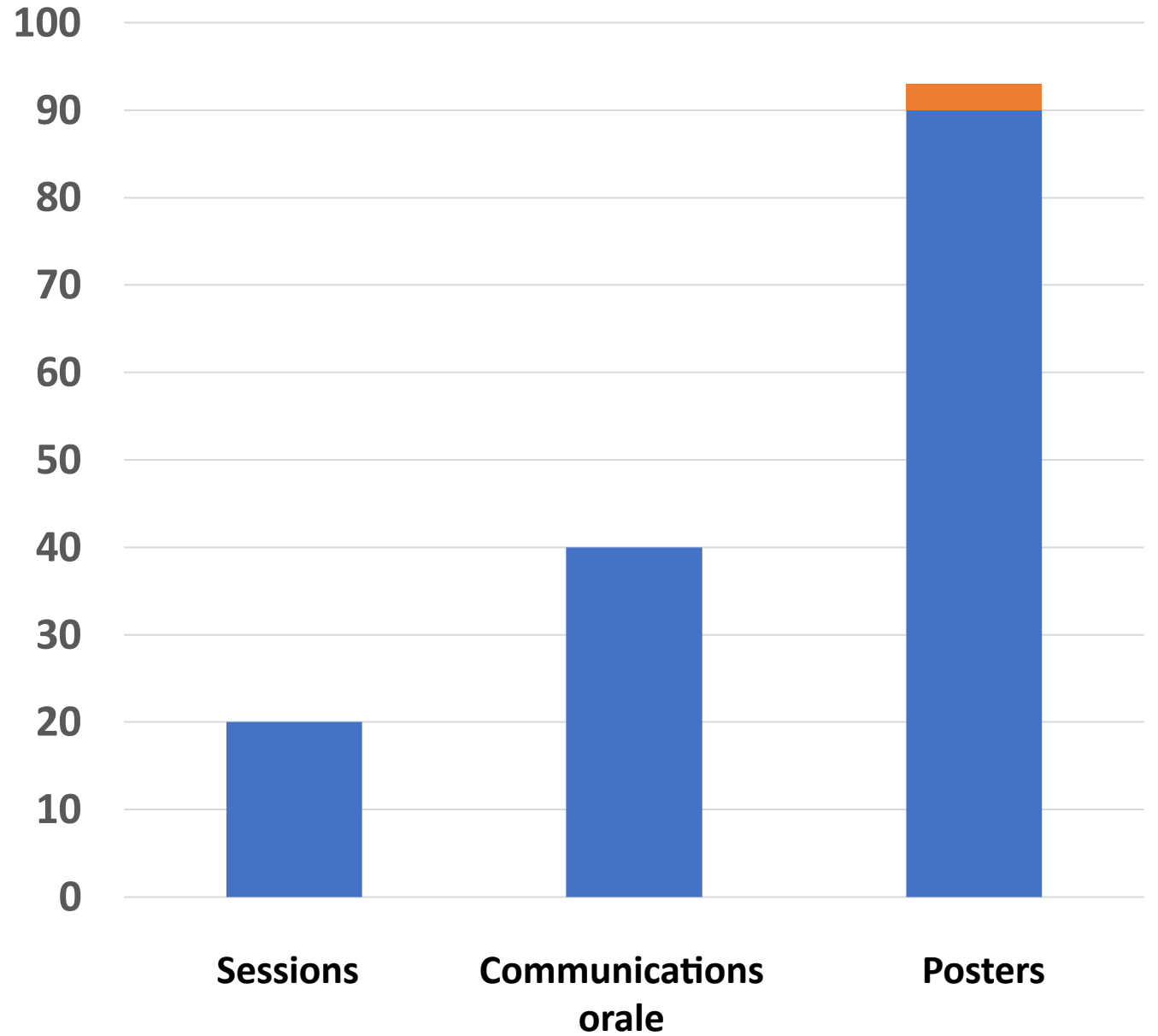
Mais

4

Avoid admission or preoperative chest x-rays for ambulatory patients with unremarkable history and physical exam.



Antibio*
ou
Infecti*

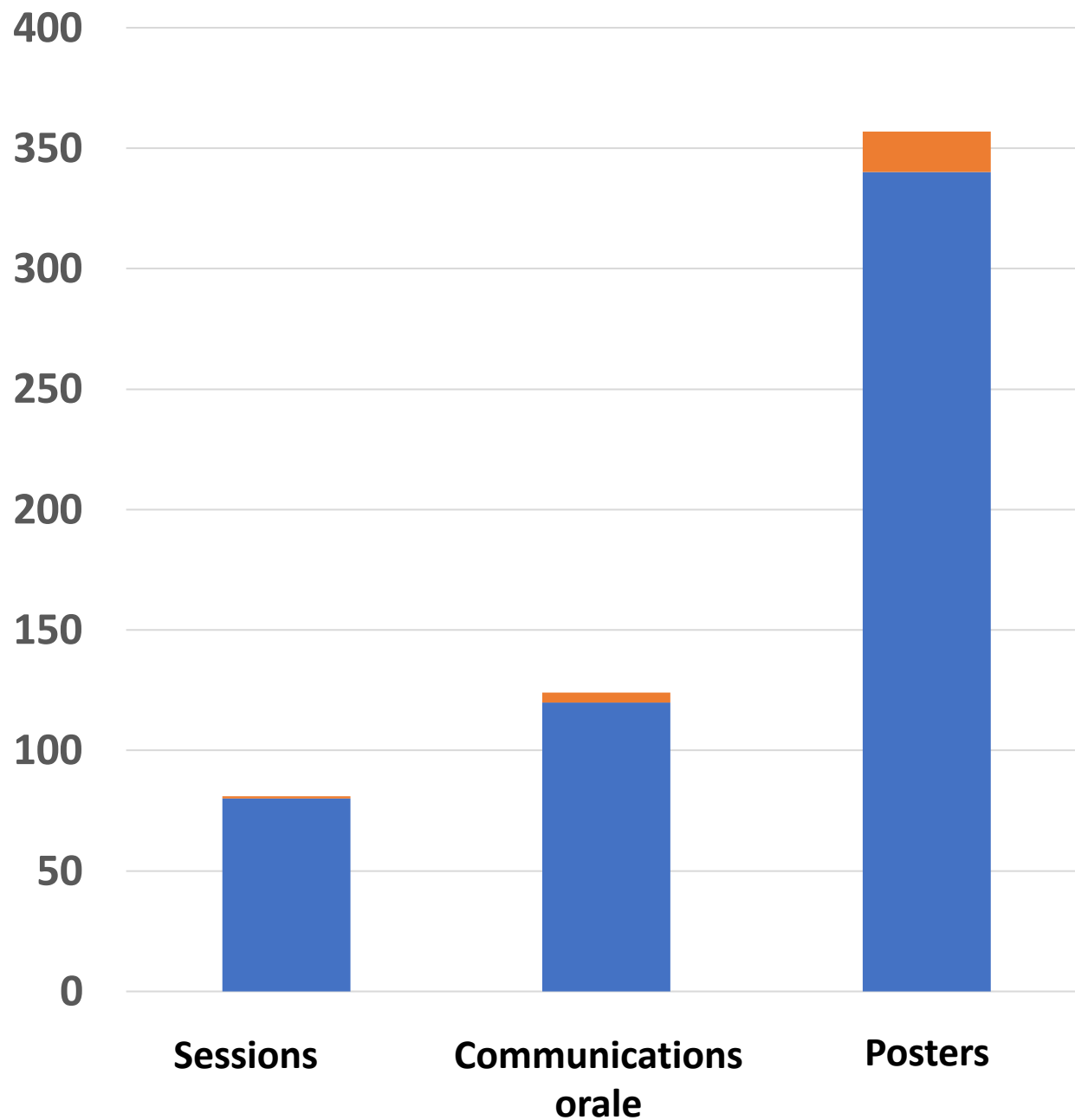




SOFCOT

11-13 NOVEMBRE 2019

Antibio*
ou
Infecti*



Société Française des Chirurgiens Esthétiques Plasticiens
French Society of Aesthetic Plastic Surgeons

sofcep

32^{ème}
th
Congrès
Congress



Val d'Isère
Centre des congrès
Congress center

SAVE THE DATE

24-27
Avril
April
2019

Sessions translated
in English

L'Excellence Thérapeutique au Sommet de la Beauté

Therapeutic Excellence at the Summit of Beauty

Infos @ www.chirurgiens-esthetiques-plasticiens.com



250
200
150
100
50
0

Sessions

Communications
orale



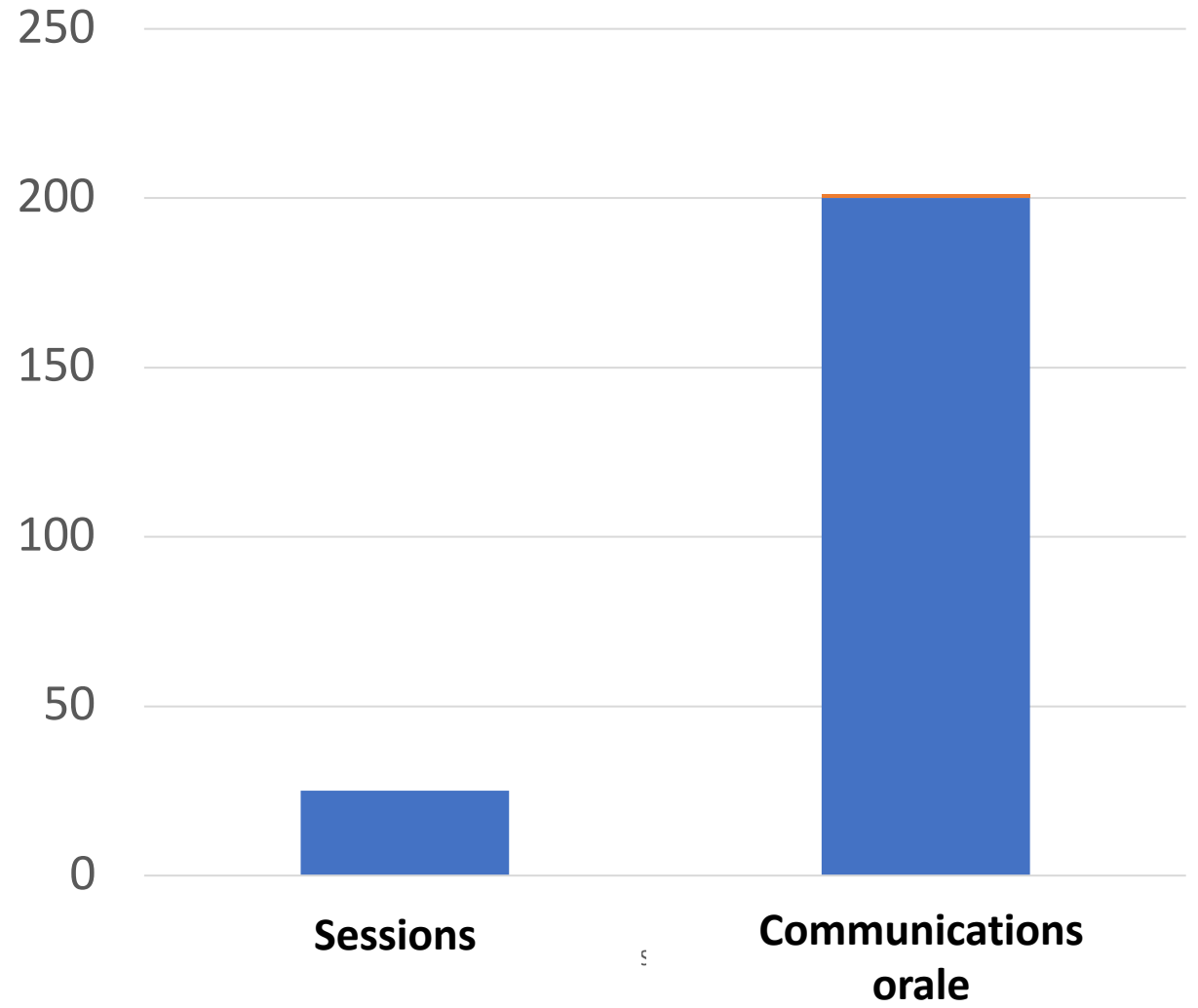
S.O.F.C.P.R.E.

SOCIÉTÉ FRANÇAISE DE CHIRURGIE PLASTIQUE RECONSTRUCTRICE ET ESTHÉTIQUE



S.O.F.C.P.R.E.

SOCIÉTÉ FRANÇAISE DE CHIRURGIE PLASTIQUE RECONSTRUCTRICE ET ESTHÉTIQUE



**The ASPIRES Study (2017 - 2021):
Antibiotic use across Surgical Pathways -
Investigating, Redesigning and Evaluating Systems**



Post opératoire



Suspicion
d'infection



Début
antibiothérapie

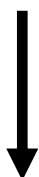
Échec(s)



Utilisation
carbapénème



Avis EMA



Prélèvement



Microbiologie

 **Chirurgiens**

 **Infectiologues**

 **Microbiologistes**

Post opératoire



Suspicion
d'infection

Début
antibiothérapie

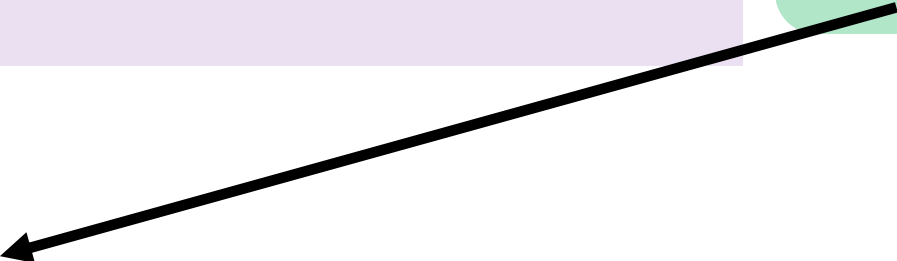
Échec

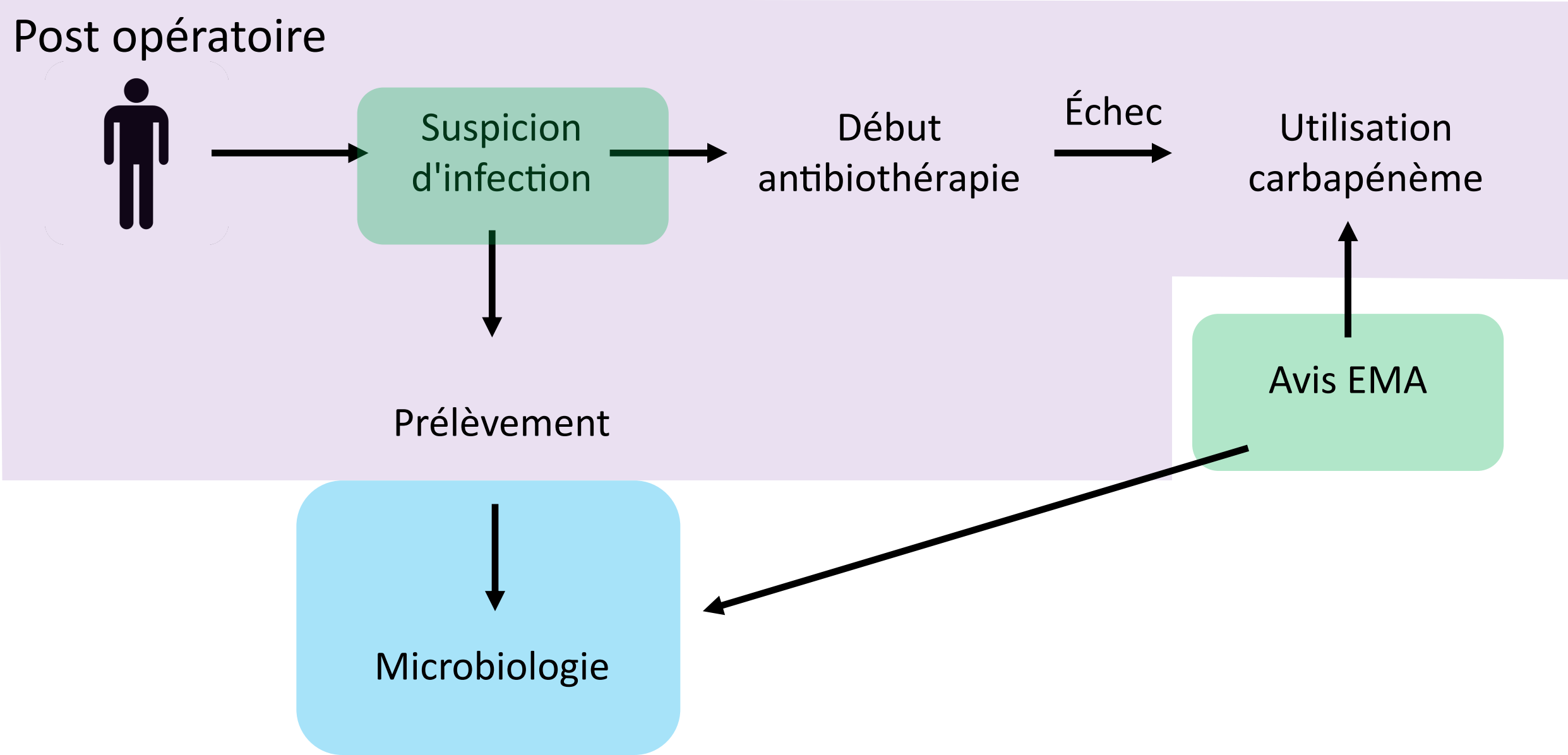
Utilisation
carbapénème

Prélèvement

Avis EMA

Microbiologie





Post opératoire



Suspicion d'infection

Début antibiothérapie

Échec

Utilisation carbapénème

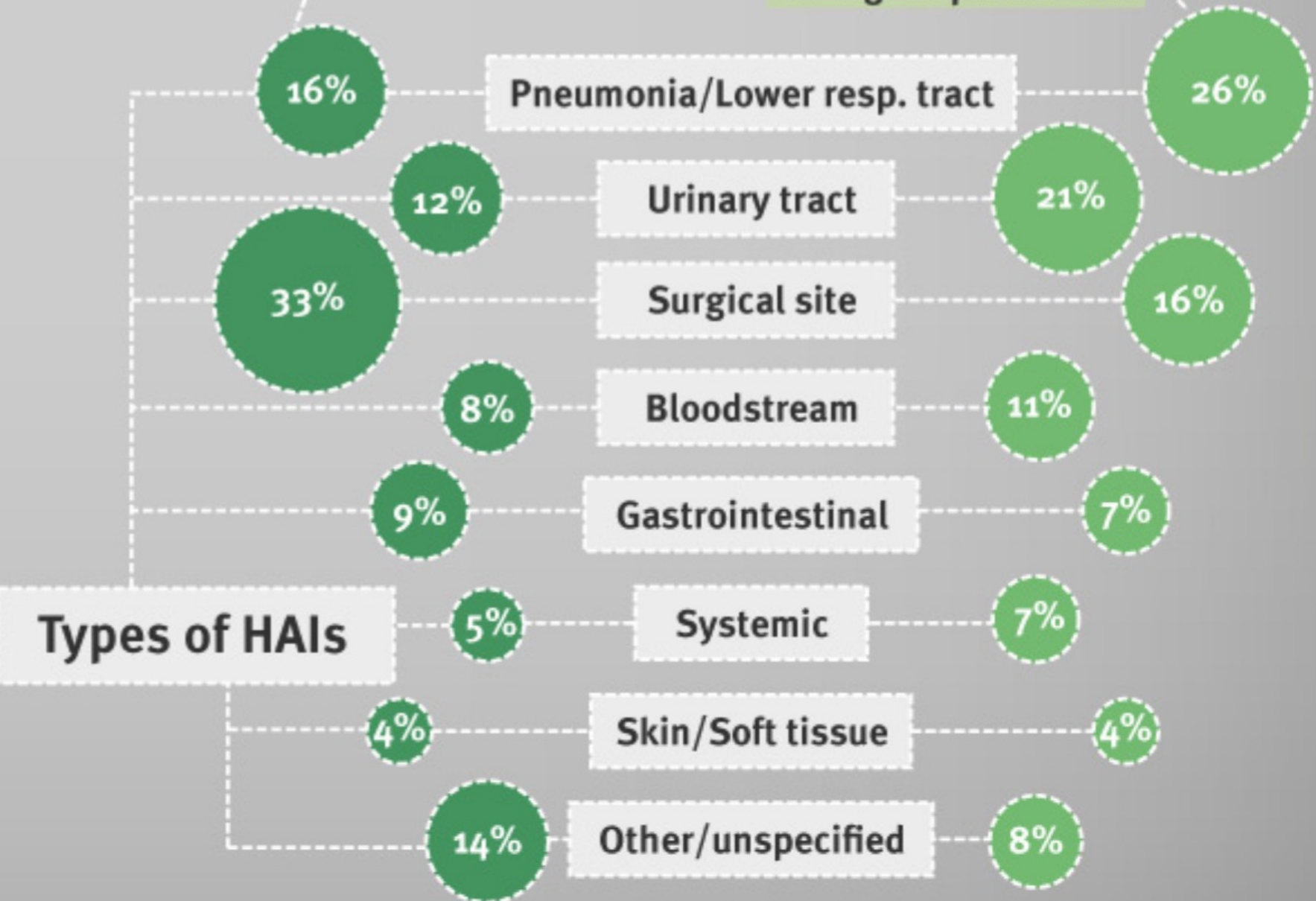
Avis EMA

Prélèvement

Microbiologie

...presence of HAI on admission

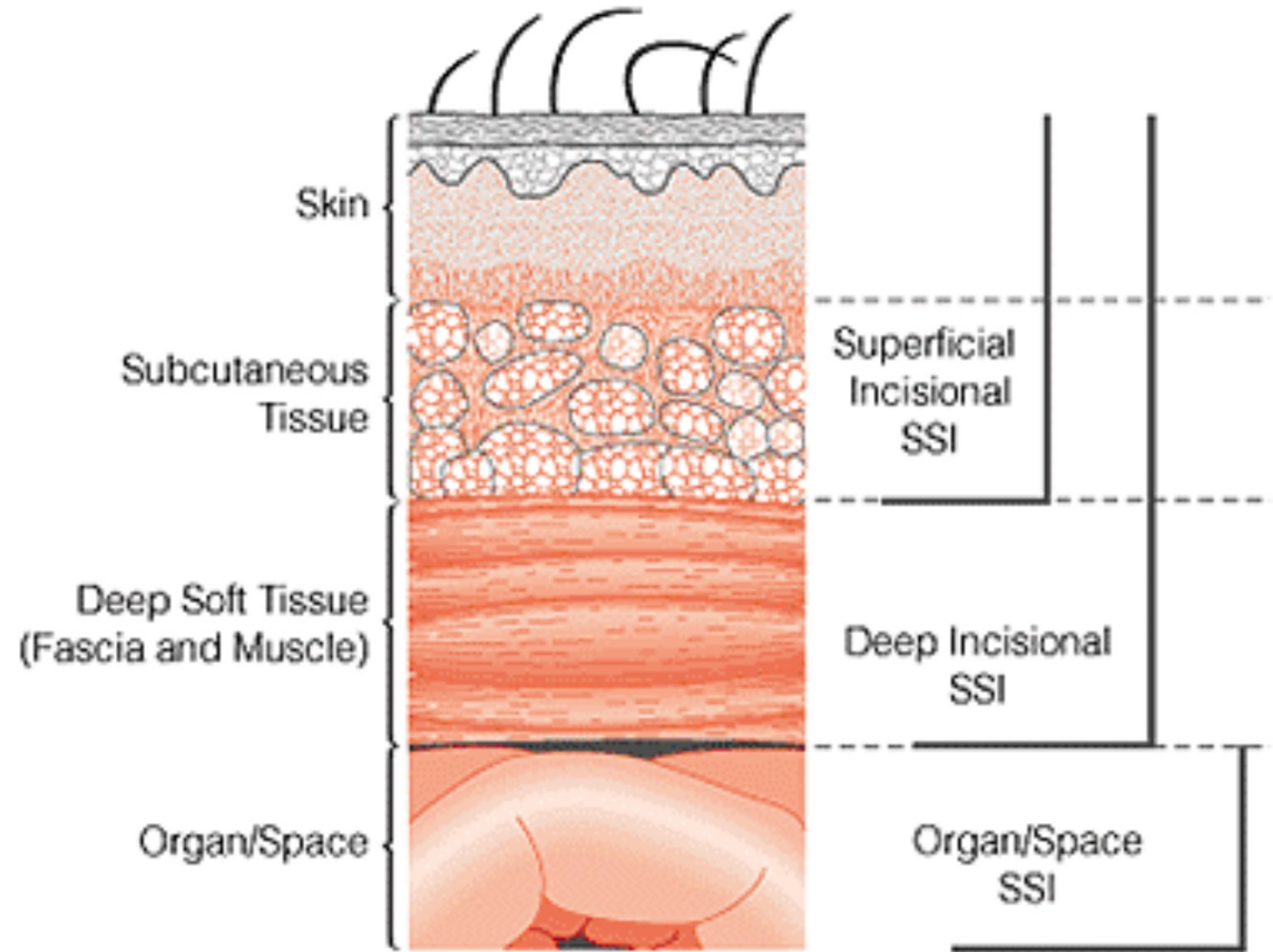
...HAI onset during hospitalisation

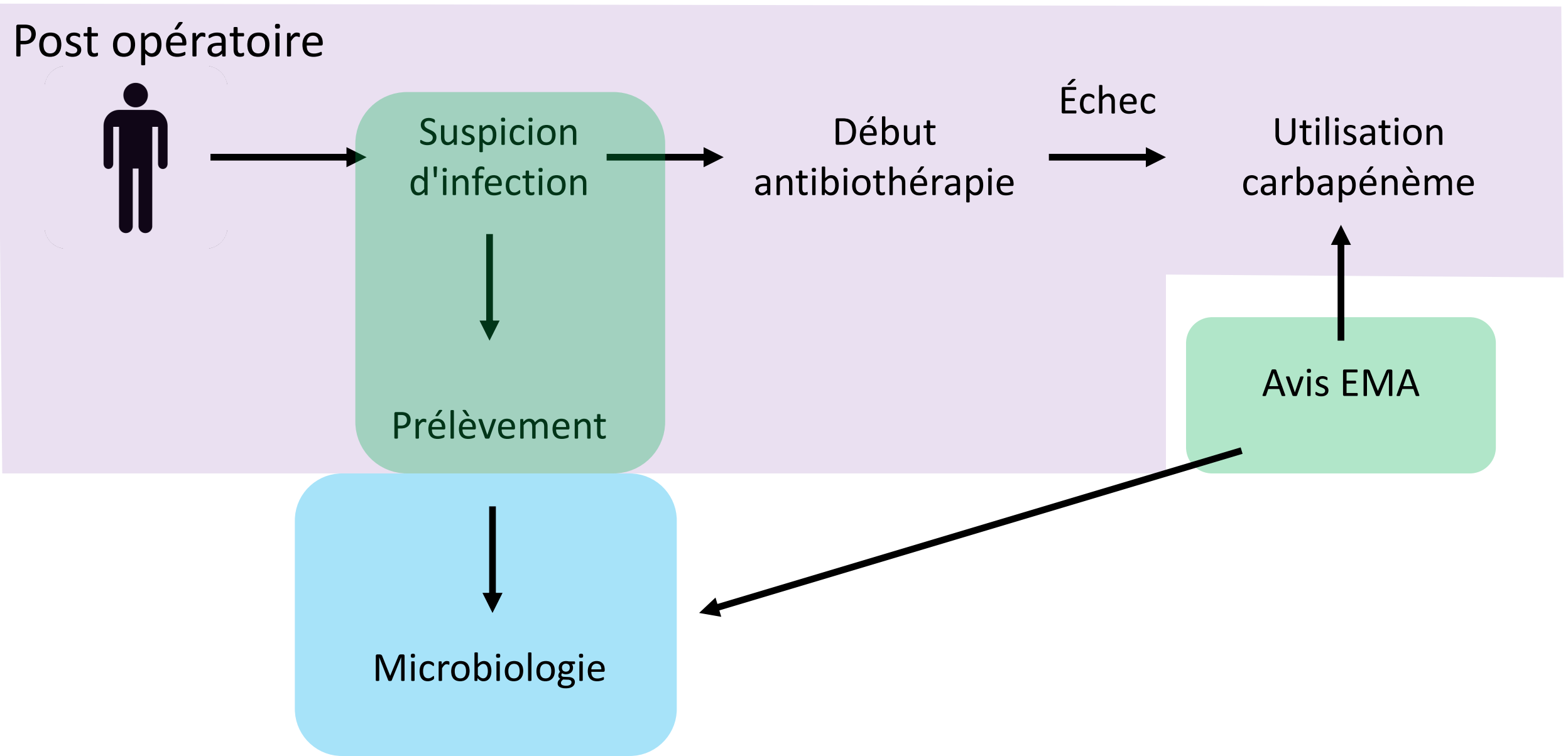


Types of HAIs

Healthcare-associated infections in European hospitals. eCDC

Diagnostic d'ISO





Post opératoire



Suspicion d'infection



Prélèvement



Microbiologie

Début antibiothérapie

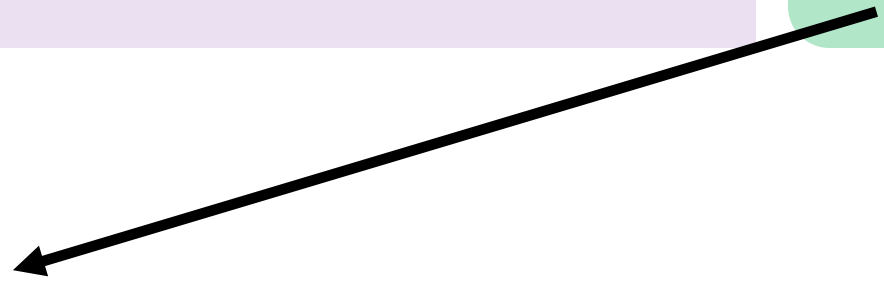
Échec



Utilisation carbapénème



Avis EMA



"Diagnostic stewardship"

Systèmes ou interventions mises en place afin de promouvoir l'utilisation rationnelle des tests et examens diagnostiques

- Pré analytique
 - Outil d'aide à la prescription de prélèvements
 - Avis systématique de l'équipe d'infectiologie
- Analytique
 - Rejeter les prélèvements inappropriés
- Post analytique
 - Antibiogramme ciblé

Prélèvement ISO : médico-infirmero-chirurgical



- Règles différentes selon les sites
- Hétérogènes et parfois contradictoires
- Peu de données scientifiques

Post opératoire



Suspicion
d'infection

Début
antibiothérapie

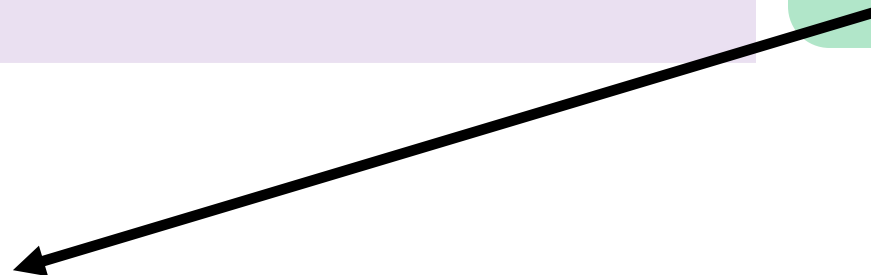
Échec

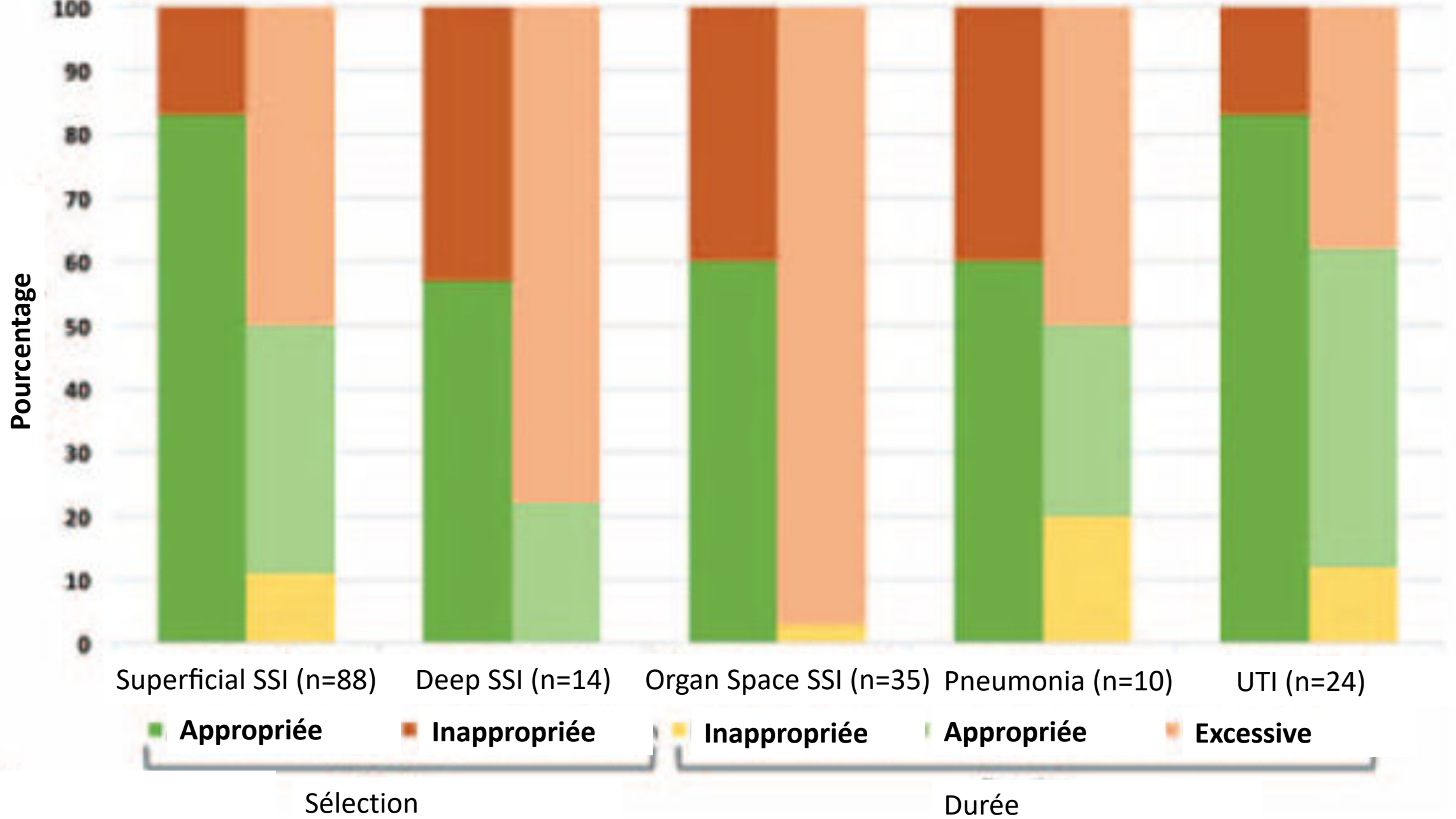
Utilisation
carbapénème

Prélèvement

Avis EMA

Microbiologie





Méconnaissance diagnostique

Utilisation inappropriée des prélèvements

Différences culturelles

Manque de connaissances en antibiothérapie

Pas d'audit et de feedback

Manque de clarté sur les rôles de chacun

Formation initiale et continue

Recommandations locales et nationales pour les ISOs

Définir la place et le rôle de l'équipe d'infectiologie

Mise en place de solutions adaptées au contexte

Soutien de l'administration

Définir le leadership pour chaque décision

Clinical Infectious Diseases

MAJOR ARTICLE

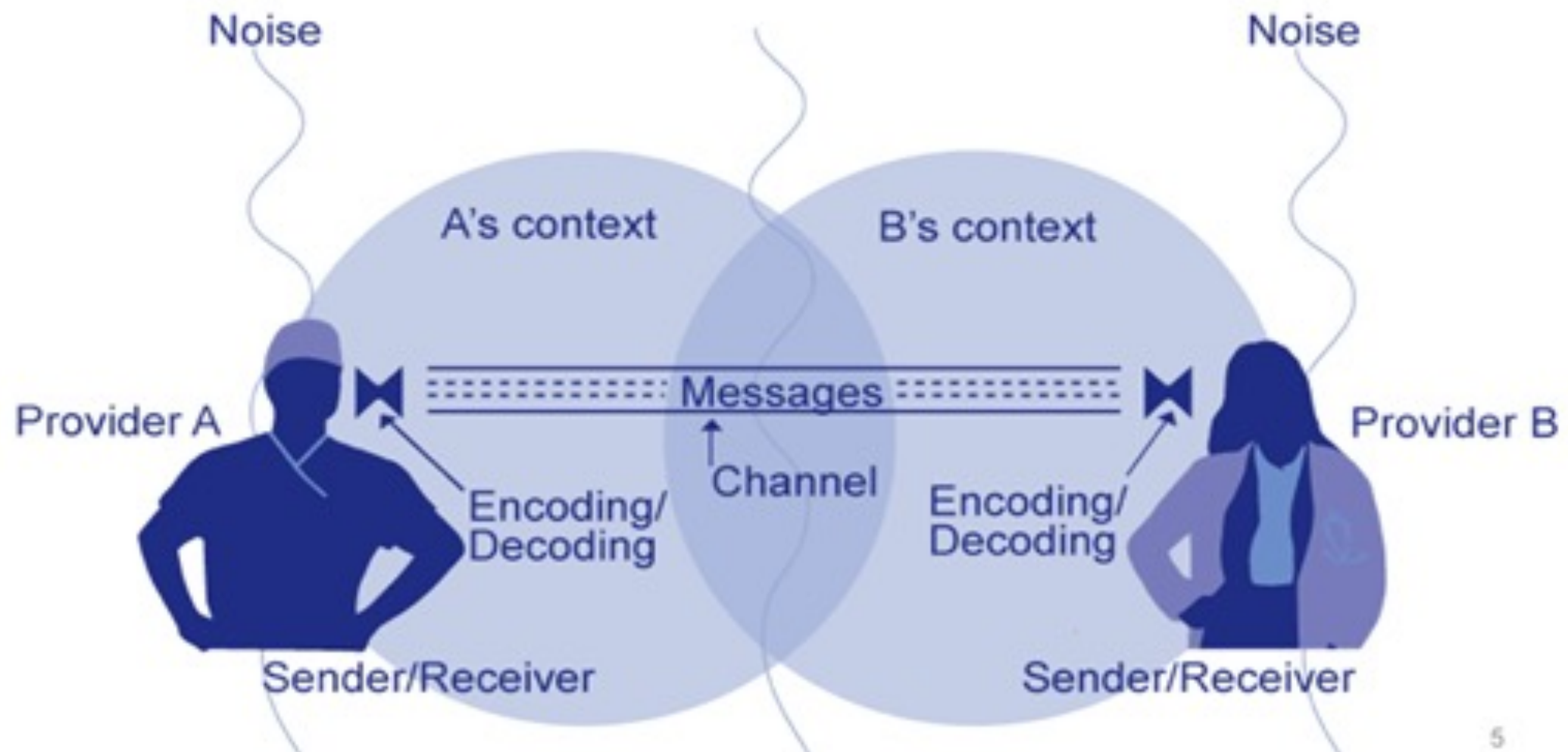


OXFORD

The Differences in Antibiotic Decision-making Between Acute Surgical and Acute Medical Teams: An Ethnographic Study of Culture and Team Dynamics

E. Charani,¹ R. Ahmad,¹ T. M. Rawson,¹ E. Castro-Sánchez,¹ C. Tarrant,² and A. H. Holmes¹

¹Health Protection Research Unit in Healthcare-Associated Infections and Antimicrobial Resistance, National Institute for Health Research, Imperial College London, and ²Department of Health Sciences, University of Leicester, United Kingdom



Les spécialités médicales

- ont l'habitude de prendre des décisions de façon collective
- ont plus de contacts avec les pharmaciens
- "naviguent" mieux avec l'incertitude
- peuvent consacrer plus de temps à la décision antibiotique

Les spécialités chirurgicales

- ont l'habitude de prendre des décisions de façon plutôt individuelle
- sont moins confrontés / moins à l'aise avec la gestion de l'incertitude
- sont plus hiérarchiques
- travaillent dans une temporalité différente, structurée par le bloc opératoire

Charani et al. The Differences in Antibiotic Decision-making Between Acute Surgical and Acute Medical Teams: An Ethnographic Study of Culture and Team Dynamics. *Clin Infect Dis* 2019

« Métissage » culturel

- S'adapter à la temporalité = donner les avis à un horaire qui convient aux 2 spécialités
- Utiliser des plate-formes de communication adaptées (whatsapp)
- Trouver un chirurgien "champion" influent pour la cause du bon usage antibiotique



Mais est-ce la solution pour le suivi des infections complexes ?



Modèles de collaboration médico-chirurgicale

Consultation

Comanagement

Hospitaliste

Consultation



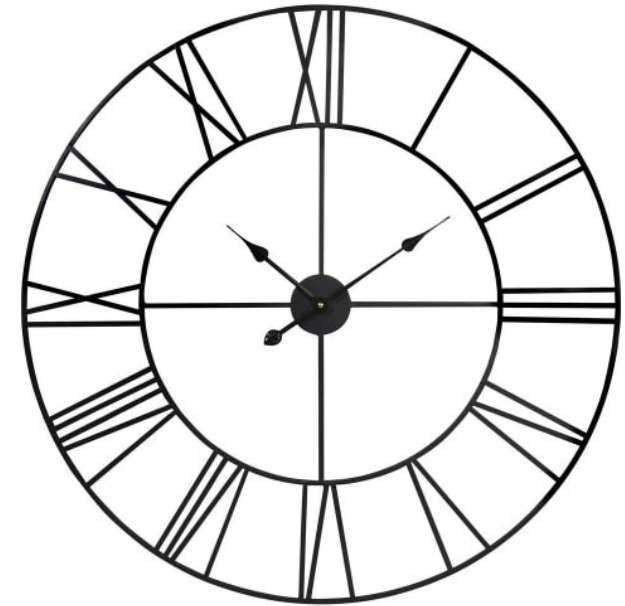
Comanagement



Consultation



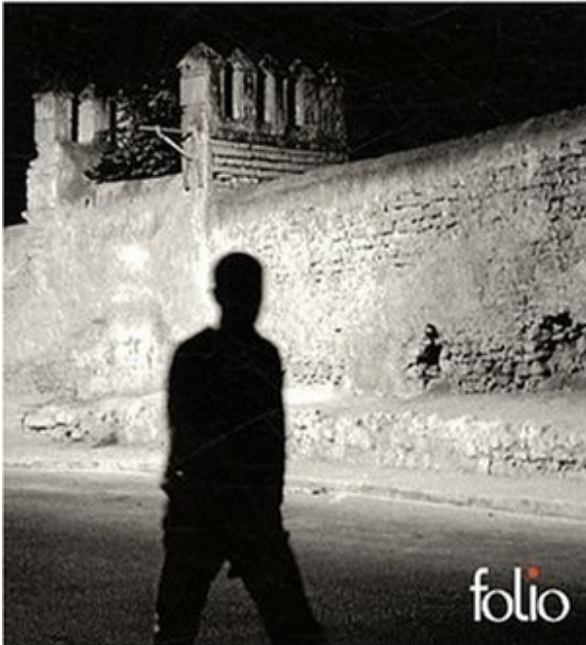
Comanagement



Consultation

Albert Camus

L'étranger



Comanagement



Consultation



Comanagement





From the Society for Clinical Vascular Surgery

The effect of a hospitalist comanagement service on vascular surgery inpatients

Rami O. Tadros, MD,^a Peter L. Faries, MD,^a Rajesh Malik, MD,^a Ageliki G. Vouyouka, MD,^a
Windsor Ting, MD,^a Andrew Dunn, MD,^b Michael L. Marin, MD,^a and Alan Briones, MD,^b *New York, NY*

1059 patients. The in-hospital mortality rate decreased from 1.75% to 0.37% after the implementation of the hospitalist comanagement service (P < .016)



From the Society
ORIGINAL ARTICLE

Surgical Comanagement by Hospitalists Improves Patient Outcomes

A Propensity Score Analysis

Nidhi Rohatgi, MD, MS, Pooja Loftus, MS,* Olgica Grujic,† Mark Cullen, MD,*
Joseph Hopkins, MD, MMM,*† and Neera Ahuja, MD**

SE N= 16 930. Was associated with a significant differential decrease in the proportion of patients with at least 1 medical complication [odds ratio (OR) 0.86; 95% confidence interval (CI), 0.74–0.96; P1/40.008]

ement

REVIEW

Ortho-geriatric service—a literature review comparing different models

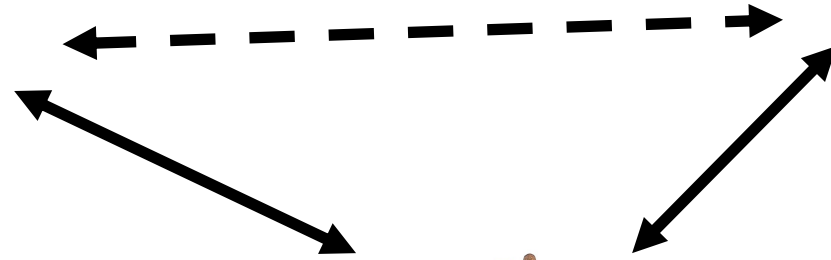
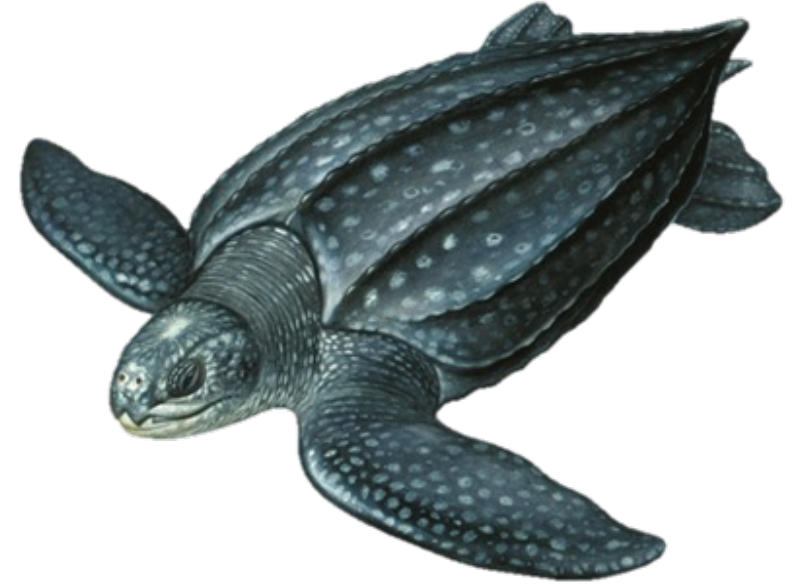
**C. Kammerlander · T. Roth · S. M. Friedman ·
N. Suhm · T. J. Luger · U. Kammerlander-Knauer ·
D. Krappinger · M. Blauth**

21 studies. The group with integrated care could show the lowest in-hospital mortality rate (1.14%), the lowest length of stay (7.39 days), and the lowest mean time to surgery (1.43 days)

Chirurgien



Infectiologue



Interniste / Hospitaliste



ELSEVIER

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

American Journal of Infection Control

journal homepage: www.ajicjournal.org

AJIC
American Journal of
Infection Control

Major Article

Effect of perioperative hyperglycemia on surgical site infection in abdominal surgery: A prospective cohort study

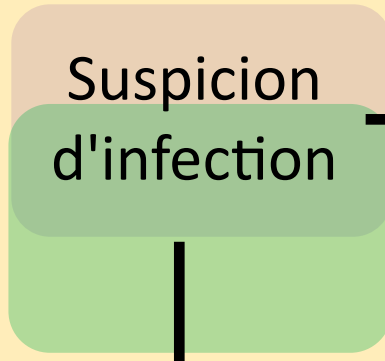
Gislaine Cristhina Bellusse PhD, RN^a, Julio Cesar Ribeiro PhD, RN^a, Isabel Cristina Martins de Freitas PhD^b, Cristina Maria Galvão PhD, RN^{c,*}

Methods: We enrolled 484 abdominal surgery patients ≥ 18 years of age, recruited between July 2016 and May 2017. Data were collected through structured interviews and patient assessments in the perioperative period and at the surgical outpatient clinic (30th day after surgery). Crude and adjusted models were built to identify the effect of hyperglycemia on SSI.

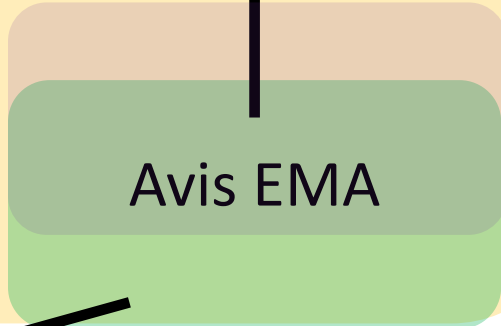
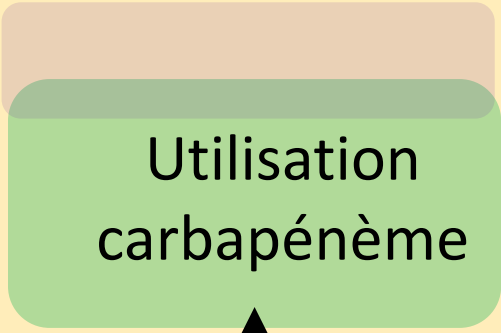
Results: The incidence rate of SSI was 20.25%. The attributable fraction for patients exposed to hyperglycemia was $>60\%$. In the multivariable analysis, patients with hyperglycemia, at the end of the surgery and 12 hours later, were more likely to develop this type of infection (relative risk = 1.89 and 2.17, respectively).

Chirurgiens Infectiologues Microbiologistes Hospitalistes

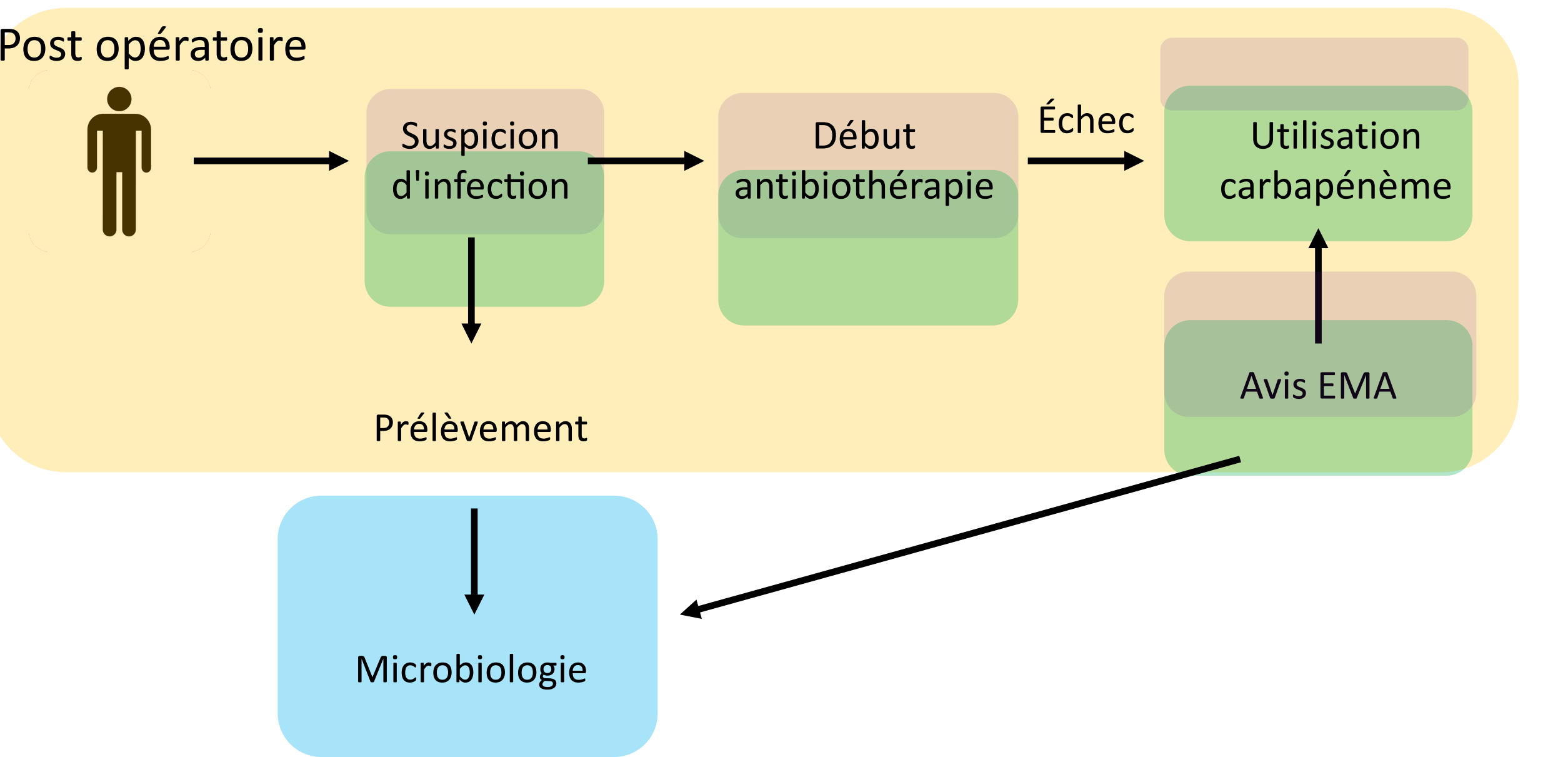
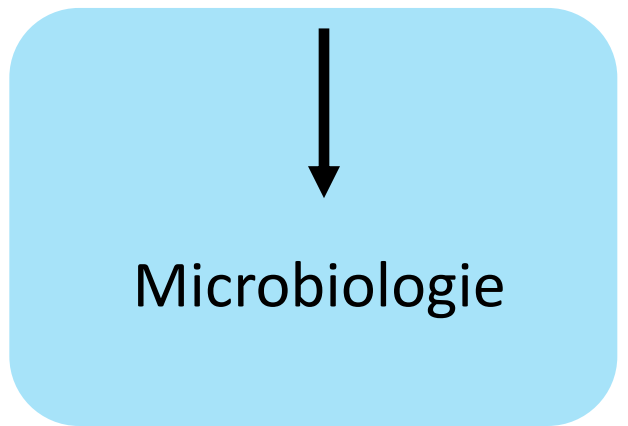
Post opératoire

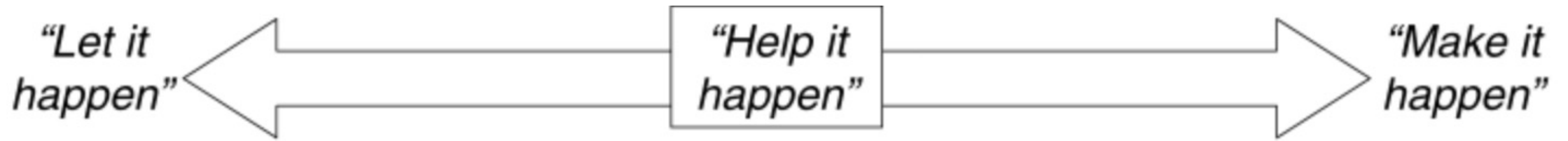


Échec



Prélèvement





Defining Features

**Unpredictable,
unprogrammed,
uncertain, emergent,
adaptive, self-
organizing**

**Negotiated,
influenced,
enabled**

**Scientific, orderly,
planned, regulated,
programmed,
systems “properly
managed”**

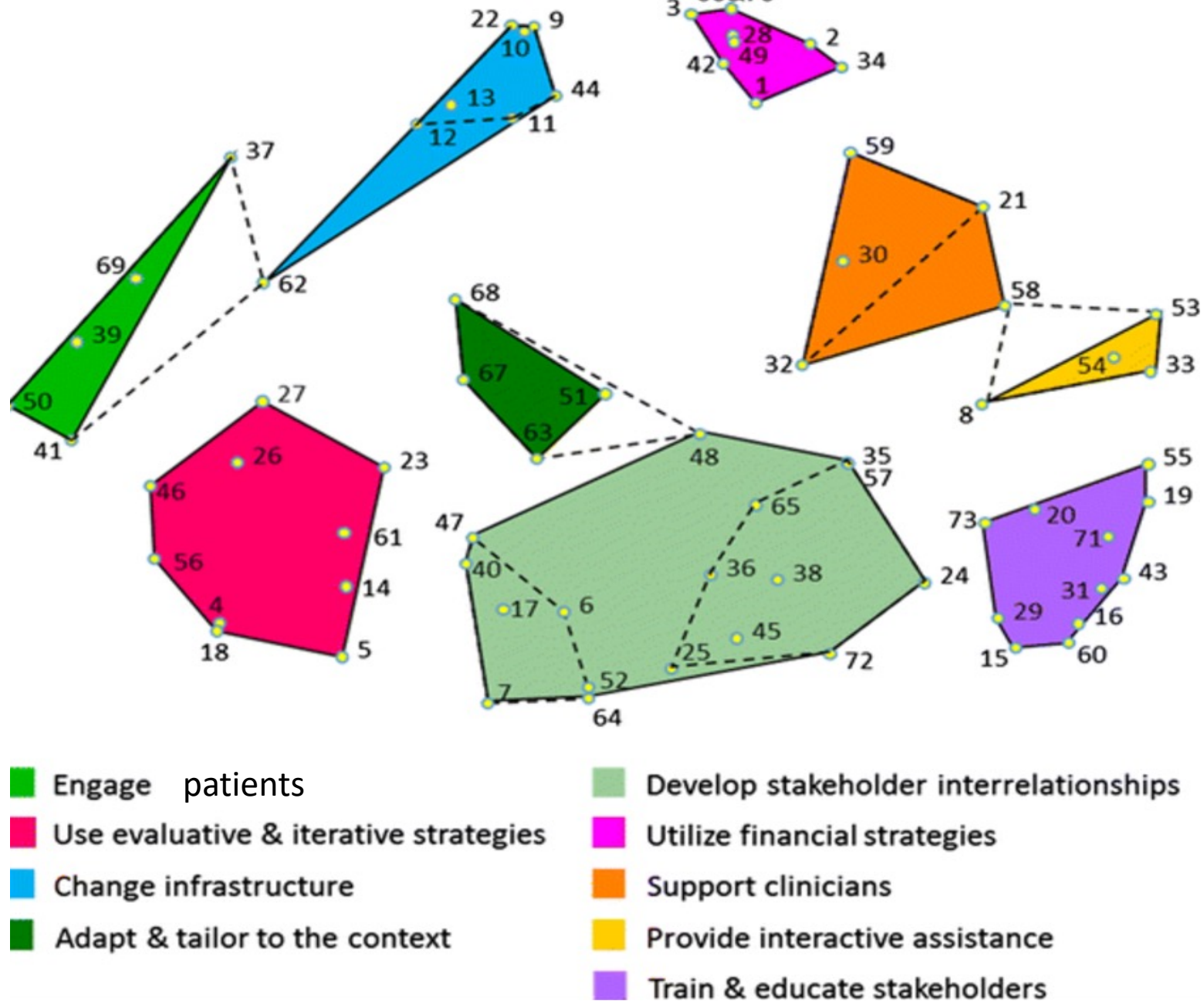
Assumed Mechanism

**Natural,
emergent**

Social

Technical

Managerial



Waltz et al. Use of concept mapping to characterize relationships among implementation strategies and assess their feasibility and importance: results from the Expert Recommendations for Implementing Change (ERIC) study. *Implementation Science* 2015

The Evolution of Co-Management

- Identifier les obstacles et les défis, les personnes impliquées, les buts et les risques
- Clarifier les rôles et les responsabilités au cours de la trajectoire du patient sous la forme d'un accord écrit
- Identifier des champions, dans l'idéal un chirurgien, un spécialiste d'organe, un hospitaliste et un administrateur
- Mesurer l'impact du programme sur la durée de séjour, le coût, la qualité et la sécurité du patient
- Planifier les coûts et s'organiser sur la durée



Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

European Journal of Internal Medicine

journal homepage: www.elsevier.com/locate/ejim



Original Article **2019**

Medical and surgical co-management – A strategy of improving the quality and outcomes of perioperative care

Carmen Fierbințeanu-Braticevici^{a,*}, Matthias Raspe^b, Alin Liviu Preda^c, Evija Livčāne^d, Leonid Lazebnik^e, Soňa Kiňová^f, Evert- Jan de Kruijf^g, Radovan Hojs^h, Thomas Hanslikⁱ, Mine Durusu-Tanriover^j, Francesco Dentali^k, Xavier Corbella^l, Pietro Castellino^m, Monica Bivolⁿ, Stefano Bassetti^o, Vasco Barreto^p, Eduardo Montero Ruiz^q, Luis Campos^r, The Working Group on Professional Issues and Quality of Care of the European Federation of Internal Medicine (EFIM)

Chirurgien

Infectiologue

Microbiologiste

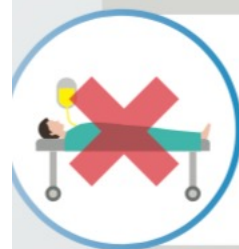
Interniste



Infirmière

Suivi

Infectio-hospitalo-microbio-infirmito-chirurgica ?



Do NOT prolong surgical antibiotic prophylaxis in the postoperative period

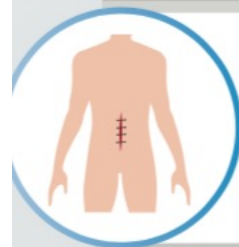
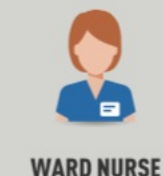


Do NOT continue surgical antibiotic prophylaxis due to the presence of a drain

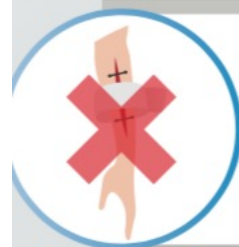
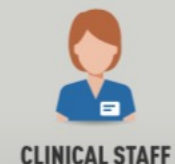
Remove wound drain when clinically indicated



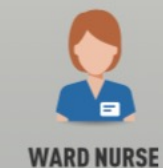
Administer 80% FiO₂ for 2–6 hours post-op



Evaluate and manage wound appropriately, including cleansing, dressing and care, according to the given wound situation

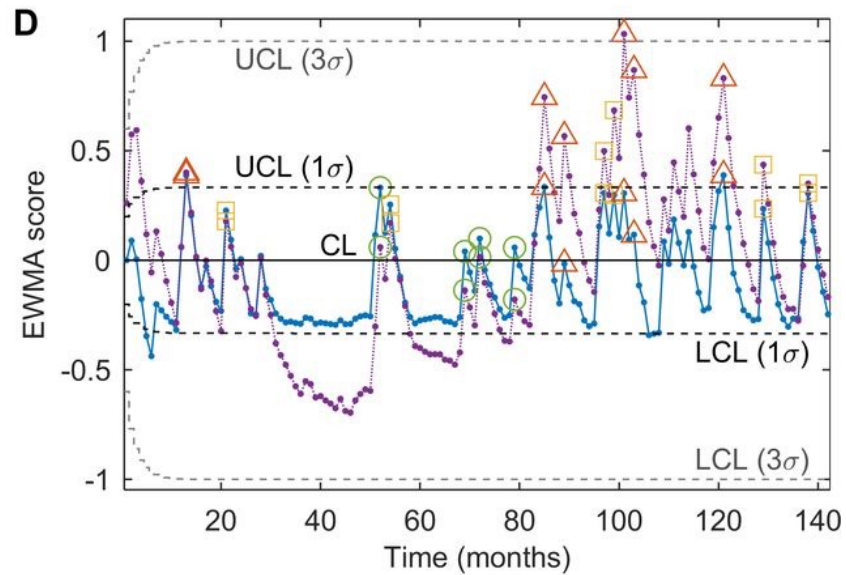
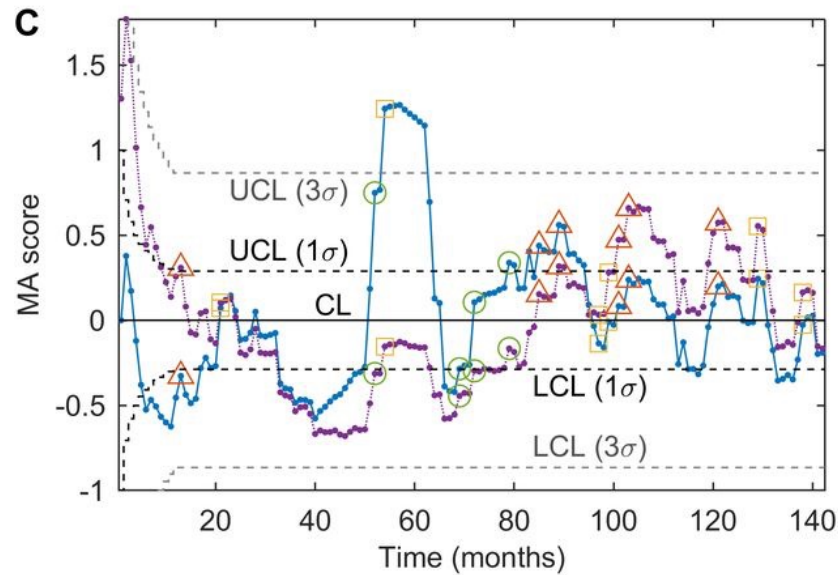
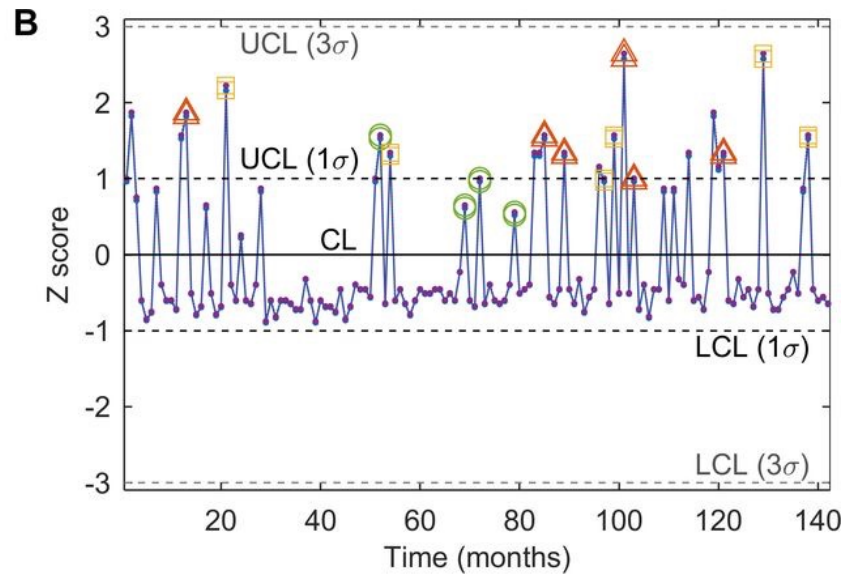
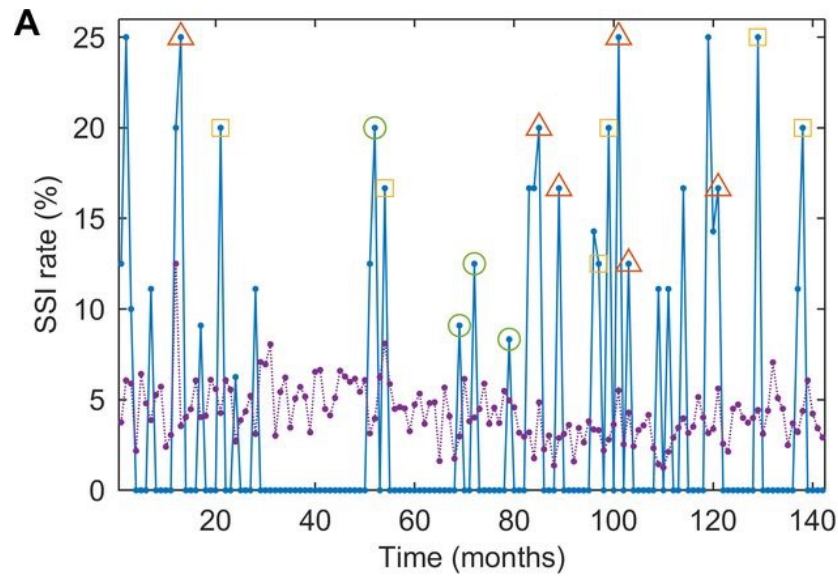


Do NOT use advanced dressings of any sort
(use standard dressings instead)



IMPLEMENTATION MANUAL
to support the prevention of
surgical site infections at the facility level
TURNING RECOMMENDATIONS
INTO PRACTICE
OMS 2018

Épidémiologistes



—●— Local baselines - - - ● - - - DICON baselines ○ No concern □ Low concern △ Moderate concern

Ilieş et al. Large-scale empirical optimisation of statistical control charts to detect clinically relevant increases in surgical site infection rates. *BMJ Qual Saf* 2019

Et les patients ?

Patient Engagement with Surgical Site Infection Prevention: an Expert Panel Perspective.

E. Tartari¹, V. Weterings^{2,3}, P. Gastmeier⁴, J. Rodríguez Baño⁵, A. Widmer⁶, J. Kluytmans^{2,7}, A. Voss^{3,8}

Antimicrobial Resistance & Infection Control 2017

1. *Staphylococcus aureus* screening and decolonization
2. Smoking
3. Hair removal
4. Hand hygiene
5. Body temperature
6. Showering and disinfecting wipes before surgery
7. Diabetes mellitus
8. Wound care after surgery
9. Risk factors for multidrug-resistant organisms

Wound care after surgery

- Make sure you **know and understand** how to care for your wound before leaving the hospital
- If any **symptoms of wound infection** are present (redness, pain, swelling, fever) inform your doctor

Microbiologistes

Infectiologues

Épidémiologistes

Pharmaciens

Hygiénistes

Infirmiers

Chirurgiens

Anesthésistes

Hospitalistes

Patients



Remerciements



Imperial College
London

