Les infections cutanées associées aux soins

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CHU de Nice, Infectiologie

Journée RésO Les infections cutanées 30/11/18

Des infections nosocomiales révélées par des anomalies de l'examen dermatologique, oui !

Les infections cutanées associées aux soins

- Enquête Nationale de prévalence Infections Nosocomiales
- Données de la littérature sur les infections cutanées « liées aux soins »
- Infections de plaie chirurgicale / antibiotiques locaux
- Infections cutanées nosocomiales et « nouveaux » moyens thérapeutiques en infectiologie
- Proposition d'étude

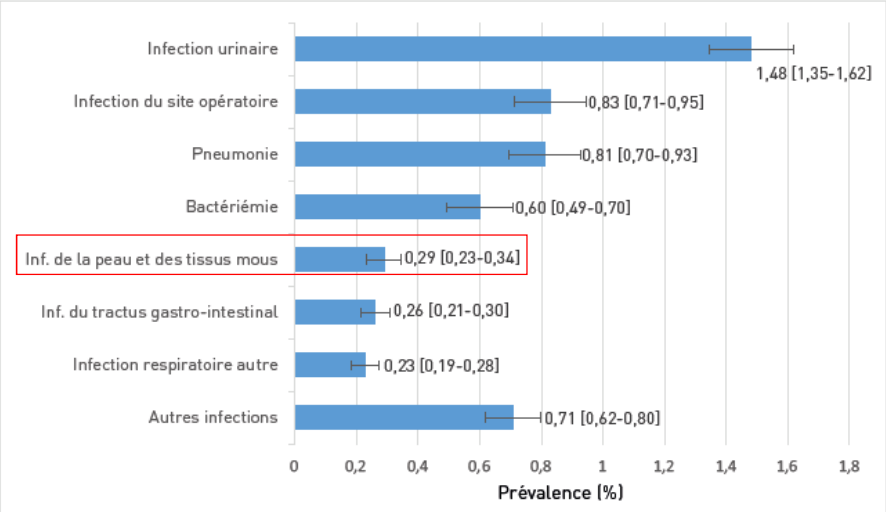
Enquête Nationale de prévalence Infections Nosocomiales France 2017, 80 988 patients

Prévalence des infections nosocomiales

5,21 %

IC 95 % [4,82-5,61]

Prévalence des principaux sites infectieux (% [IC95 %])



Enquête Nationale de prévalence Infections Nosocomiales France 2017,
Définitions utilisées

Infection cutanée **[PEACUT]**

- Cas 1 : écoulement purulent, pustules, vésicules ou furoncles.
- Cas 2 : présence d'au moins deux des signes suivants, sans autre cause évidente : douleur locale, gonflement, chaleur, sensibilité, rougeur, + arguments microbiologiques

Infection des tissus mous **[PEAMOU]**

Concerne : fasciite nécrosante, gangrène infectieuse, cellulite nécrotique, myosite infectieuse, lymphadénite ou lymphangite.

Enquête Nationale de prévalence Infections Nosocomiales France 2017,
Définitions utilisées

Infection peau et tissus mous	**PEAMAS**	Abcès du sein ou mastite
	PEABRU	Infection de brûlure
	PEAESC	Infection d'escarre
	PEACUT	Infection cutanée
	PEAMOU	Infections des tissus mous
Infection du site opératoire	**ISOSUP**	Infection du site opératoire - infection de la partie superficielle de l'incision
	ISOPRF	Infection du site opératoire - infection de la partie profonde de l'incision
	ISOORG	Infection du site opératoire - infection de l'organe ou de l'espace concerné par le site opératoire

Données de la littérature sur les infections cutanées « liées aux soins »

ORIGINAL ARTICLE Benjamin A. Lipsky,

INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY NOVEMBER 2007, VOL. 28, NO. 11

Skin, Soft Tissue, Bone, and Joint Infections in Hospitalized Patients: Epidemiology and Microbiological, Clinical, and Economic Outcomes

US, 2002 2003 base de données commune à 134 centres

« we collected data from all patients with a culture-positive skin specimen, soft-tissue specimen, bone specimen, joint specimen, surgical device, or prosthesis » + diagnostic selon la CIM

HCA : transfert autre centre, hémodialyse, hospit au cours des 30 derniers jours, chimio en cours

Infection Compliquée = intervention dans les 2 jours suivant l'admission ou comorbidité ou leucopénie

TABLE 2. Demographic and Clinical Characteristics of Patients With Skin, Soft-Tissue, Bone, or Joint (SSTBJ) Infection

Characteristic	Group 1 (n = 2,810)	Group 2 (n = 4,162)	Group 3 (n = 4,668)	Group 4 (n = 866)	Overall (n = 12,506)
	IOA	**2a** infection voie d'abord + ISO **2b** device or prothesis	Cellulite	Autres	
Diabetes mellitus	1,935 (68.9)	1,528 (36.7)	2,351 (50.4)	323 (37.3)	6,137 (49.1)
Fever (temperature, ⩾38°C)	575 (20.5)	939 (22.6)	808 (17.3)	177 (20.4)	2,499 (20.0)

Mais quel type de chirurgie ?

Infection compliquée : 75%

Infection was monomicrobial in 7,329 patients (59%); in 5,334 (72.8%), infection was community acquired; and in 1,995 (27.2%), infection was healthcare associated

Blood cultures were performed for 3,660 patients (50%), and a pathogen was recovered from 729 (20%) patients. Of these 729 patients, 65.2% had the same organism recovered from blood and the SSTBJ specimen.

TABLE 3. Organisms Recovered From Cultures of Wound Samples Obtained From Patients With Monomicrobial Skin, Soft-Tissue, Bone, or Joint (SSTBJ) Infection

Organism	Group 1 (n = 1,450)	Group 2a (n = 2,054)	Group 2b (n = 777)	Group 3 (n = 2,722)	Group 4 (n = 326)	Total (n = 7,329)
Aerobes				Total 4668		
Overall	1,391 (95.9)	2,008 (97.8)	761 (97.9)	2,640 (97.0)	310 (95.1)	7,110 (97.0)
Gram-positive bacteria						
Overall	1,266 (87.3)	1,771 (86.2)	702 (90.3)	2,392 (87.9)	241 (73.9)	6,372 (86.9)
Staphylococcus aureus						
Overall[a]	774 (53.4)	1,213 (59.1)	338 (43.5)	1,535 (56.4)	145 (44.5)	4,007 (54.7)
MSSA	584 (40.3)	879 (42.8)	241 (31.0)	1,151 (42.3)	92 (28.2)	2,947 (40.2)
MRSA	202 (13.9)	359 (17.5)	102 (13.1)	405 (14.9)	53 (16.3)	1,121 (15.3)
CoNS	237 (16.3)	363 (17.7)	256 (32.9)	425 (15.6)	53 (16.3)	1,334 (18.2)
Streptococcus species	172 (11.9)	102 (5.0)	70 (9.0)	335 (12.3)	18 (5.5)	697 (9.5)
Enterococcus species	63 (4.3)	70 (3.4)	29 (3.7)	72 (2.6)	22 (6.7)	256 (3.5)
Other	20 (1.4)	23 (1.1)	9 (1.2)	25 (0.9)	3 (0.9)	80 (1.1)
Gram-negative bacteria						
Overall	125 (8.6)	237 (11.5)	59 (7.6)	248 (9.1)	69 (21.2)	738 (10.1)
Enterobacter species	10 (0.7)	43 (2.1)	6 (0.8)	31 (1.1)	5 (1.5)	95 (1.3)
Pseudomonas aeruginosa	41 (2.8)	66 (3.2)	19 (2.4)	83 (3.0)	18 (5.5)	227 (3.1)
Other	74 (5.1)	128 (6.2)	34 (4.4)	134 (4.9)	46 (14.1)	416 (5.7)
Anaerobes						
Overall	27 (1.9)	25 (1.2)	1 (0.1)	39 (1.4)	9 (2.8)	101 (1.4)
Bacteroides species	25 (1.7)	25 (1.2)	1 (0.1)	37 (1.4)	5 (1.5)	93 (1.3)
Clostridium species	2 (0.1)	0 (0.0)	0 (0.0)	2 (0.1)	4 (1.2)	8 (0.1)

TABLE 6. Mortality Rate, Length of Hospital Stay, and Hospital Charges for Patients With Monomicrobial Skin, Soft-Tissue, Bone, or Joint Infection, by Infection Acquisition Site

Pathogen, infection type	Study population, no. of patients	Mortality rate, % of patients	Length of stay, days		Hospital charges, US$	
			Mean ± SD	Median	Mean ± SD	Median
Any						
Community acquired	5,334	0.7	6.2 ± 5.4	5	17,384 ± 22,087	11,413
Healthcare associated	1,995	1.6[a]	8.0 ± 8.1[a]	6	23,891 ± 37,896[a]	14,930

En analyse multivariée facteurs liées à une augmentation de la mortalité mortalité :
HCA, odds ratio [OR]: 1.9 [95% confidence interval {CI}, 1.2-3.1]
Infection à *Proteus spp* OR, 7.1 [95% CI, 3.1-16.1]
Bacteriémie OR, 3.1 [95% CI, 1.7-5.8]

Cellulite facteur protecteur OR, 0.5 [95% CI, 0.3-0.9]

INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY DECEMBER 2009, VOL. 30, NO. 12

M.D. Zylberger

Epidemiology and Outcomes of Hospitalizations with Complicated Skin and Skin-Structure Infections: Implications of Healthcare-Associated Infection Risk Factors

Monocentrique, 1 site US 2007-2007

HCA
Hospitalisation dans l'année
ATB dans les 90 jours,
EHPAD
Dialyse

ATB inappropriée si absence d'ATB active selon les données de sensibilité dans les 24 heures après le prélèvement

TABLE 2. Type of Infection

Infection	No. (%) of patients: Healthcare-associated infection (n = 527)	No. (%) of patients: Community-acquired infection (n = 190)	P
Cellulitis	199 (37.8)	150 (79.0)	<.001
Decubitus ulcer	80 (15.2)	7 (3.7)	<.001
Postoperative wound	100 (19.0)	14 (7.4)	<.001
Device-associated infection	168 (31.9)	14 (7.4)	<.001
Diabetic foot ulcer	33 (6.3)	9 (4.7)	.443
Abscess	130 (24.7)	113 (59.5)	<.001
Other[a]	19 (3.6)	7 (3.7)	.960

TABLE 3. Microbiology Data

Pathogen	No. (%) of patients: Healthcare-associated infection (n = 527)	No. (%) of patients: Community-acquired infection? (n = 190)	P
Gram positive			
Staphylococcus species			
Staphylococcus aureus	256 (48.6)	127 (66.8)	<.001
MRSA	169 (32.1)	83 (43.7)	.004
Group B *Streptococcus*	19 (3.6)	14 (7.4)	.034
Enterococcus species			
Enterococcus faecalis	50 (9.5)	1 (0.5)	<.001
Enterococcus faecium	27 (5.1)	0	.001
VRE	28 (5.3)	0	.001
Gram negative			
Pseudomonas aeruginosa	53 (10.1)	8 (4.2)	.013
Escherichia coli	43 (8.2)	4 (2.1)	.004
Klebsiella species	32 (6.1)	4 (2.1)	.032
Proteus mirabilis	19 (3.6)	2 (9.5)	.074
Enterobacter species	16 (3.0)	7 (3.7)	.664
Bacteroides fragilis	14 (2.7)	5 (2.6)	.985
Acinetobacter species	12 (2.3)	0	.036
Citrobacter species	11 (2.1)	1 (0.5)	.150
Polymicrobial	191 (36.2)	39 (20.5)	<.001
Bacteremia on admission	318 (60.3)	54 (28.4)	<.001

Pas de SGA ?

TABLE 4. Processes of Care and Unadjusted Outcomes

Variable	Healthcare-associated infection (n = 527)	Community-acquired infection (n = 190)	P
Incision and drainage/debridement	177 (33.5)	98 (51.6)	<.001
Incision and drainage in the emergency department	7 (1.3)	7 (3.7)	.044
Admitted to ICU	34 (6.5)	8 (4.2)	.265
Hospital LOS, days			
Mean ± SD	9.4 ± 13.9	5.5 ± 8.6	
Median (IQR)	6.2 (3.5–10.7)	2.9 (1.7–5.7)	<.001[a]
Hospital mortality	35 (6.6)	2 (1.1)	.003

Pas d'association entre HCA et antibiothérapie inadaptée OR 1.29 [95% confidence interval {CI}, 0.85–1.95]

Epidemiology and Outcomes of Complicated Skin and Soft Tissue Infections in Hospitalized Patients

JCM Journals.ASM.org 2011

Marcus J. Zervos,[a,b] Katherine Freeman,[c] Lien Vo,[d] Nadia Haque,[a] Hiren Pokharna,[a*] Monika Raut,[d] and Myoung Kim[d]

Cohorte rétrospective monocentrique US 2005 2008 cSSTI
Exclusion des cas nosocomiaux
HCA : hospit dans les 6 mois, EHPAD, SSR, antibio dans les 30 jours, immunodéprimé, dialyse
Prélèvements cutanés avec une prédominance d'espèce dans les 24 premières heures pour l'analyse concernant le caractère approprié du traitement (449/1096)

Variable	No. (%) of patients, unless otherwise stated			
	HCAI (n = 534)	CAI (n = 562)	Total (n = 1,096)	P value[b]
SSTI subtype				
Cellulitis	284 (53.2)	338 (60.1)	622 (56.8)	0.0201
Surgical wound	96 (18.0)	2 (0.4)	98 (8.9)	<0.0001
Necrotizing fasciitis	9 (1.7)	13 (2.3)	22 (2.0)	0.46
Abscess	137 (25.7)	249 (44.1)	385 (35.1)	<0.0001
Diabetic wound	30 (5.6)	42 (7.5)	72 (6.6)	0.22
Nondiabetic wound	23 (4.3)	16 (2.9)	39 (3.6)	0.19
Ulcer	82 (15.4)	31 (5.5)	113 (10.3)	<0.0001
Other	23 (4.3)	25 (4.5)	48 (4.4)	0.91

TABLE 3 Distribution of the most common pathogens among patients with a positive culture obtained at <24 h from time of admission or emergency room visit

Pathogen(s)	No. (%) of patients[a]			*P* value
	HCAI (n = 194)	CAI (n = 255)	Total (n = 449)	
S. aureus	131 (67.5)	167 (65.5)	298 (66.4)	0.65
Methicillin resistant	99 (75.6)	124 (74.3)	223 (74.8)	0.71
Methicillin susceptible	31 (23.7)	43 (25.7)	74 (24.8)	
Missing sensitivity data	1 (0.8)	0 (0.0)	1 (0.3)	
Streptococcus species	44 (22.7)	73 (28.6)	117 (26.1)	0.16
Enterococcus species	9 (4.6)	6 (2.4)	15 (3.3)	0.18
Proteus species	15 (7.7)	15 (5.9)	30 (6.7)	0.44
Other *Enterobacteriaceae*	14 (7.2)	13 (5.1)	27 (6.0)	0.35
Pseudomonas aeruginosa	11 (5.7)	7 (2.7)	18 (4.0)	0.12
Other Gram-negative bacteria	4 (2.1)	8 (3.1)	12 (2.7)	0.57
Polymicrobial infection	35 (18.0)	34 (13.3)	69 (15.4)	0.17
Type of pathogen				0.35
≥1 Gram-positive pathogen (and no Gram-negative pathogens)	160 (82.5)	216 (84.7)	376 (83.7)	
≥1 Gram-negative pathogen (and no Gram-positive pathogens)	24 (12.4)	21 (8.2)	45 (10.0)	
Mixed (both Gram-positive and -negative pathogens)	5 (2.6)	12 (4.7)	17 (3.8)	
Other	5 (2.6)	6 (2.4)	11 (2.4)	

[a] CAI, community-acquired infection; HCAI, health care-associated infection.

Plus de cancer dans le groupe HCA

TABLE 2 Unadjusted and multivariate analyses of outcomes stratified by health care-associated infection (HCAI) and community-acquired infection (CAI) (n = 1,096)

Outcome	Unadjusted analysis			Multivariate analysis[a]
	HCAI (n = 534)	CAI (n = 562)	*P* value	
Hospital length of stay (days)				2.11 (0.75-3.48)[b]
Median (IQR)	5 (1, 73)	4 (1, 103)	<0.0001[c]	
Mean ± SD	8.11 ± 8.46	6.39 ± 9.71	<0.0001[d]	
No. (%) of patients with in-hospital mortality	15 (2.8)	6 (1.1)	<0.05[e]	1.58 (0.58–4.29)[f]
No. (%) of patients with readmission/death within 30 days	136 (25.5)	67 (11.9)	<0.05[e]	1.08 (0.66–1.76)[f]

NS

Ulcères également associés à une augmentation du taux de réhospitalisation

ATB adaptée 81.5% (quelle molécules ?)
Non adaptée si admission directe dans le service sans passée par le SAU, MRSA et autres bactéries que *S. aureus* ou streptocoques BGN et polymicrobien notamment
Pas de lien avec HCA
Pas d'association avec le pronostic (mortalité ou réhospitalisation)

Inappropriate initial antibiotic treatment for complicated skin and soft tissue infections in hospitalized patients: incidence and associated factors

Diagnostic Microbiology and Infectious Disease 79 (2014) 273–279

B.A. Lipsky [a,b,*], L.M. Napolitano [c], G.J. Moran [d], L. Vo [e], S. Nicholson [e], M. Kim [e]

Multicentrique 62 centres, 525 patients
Infection pied diabétique
Cellulite
Abcès
Infection de voie d'abord chirurgicale

ATB inadaptée:
-pas donnée dans les 24 premières heures
-pas rendue sensible par les données de l'antibiogramme

Microbiology data and treatment patterns by appropriateness of initial antibiotic treatment.

	Overall (N = 525)	Appropriate Treatment (n = 407)	Inappropriate Treatment (n = 118)	*P*-value
Initial class of IV antibiotic used for study infection[a]				
Glycopeptide [b]	342 (65.1)	309 (75.9)	33 (28.0)	<0.001
Penicillin[c]	208 (39.6)	187 (46.0)	21 (17.8)	<0.001
Cephalosporin[d]	95 (18.1)	74 (18.2)	21 (17.8)	0.924
Lincosamide	74 (14.1)	59 (14.5)	15 (12.7)	0.624
Fluoroquinolone	41 (7.8)	37 (9.1)	4 (3.4)	0.042

22.5% d'ATB inadaptées

Table 3
Multivariate logistic regression model showing the independent risk factors associated with IIAT.

Variable	OR	95% CI
HCA risk factors		
Hospitalization in prior 6 months	1.27	(0.75–2.17)
Nursing home resident	3.04	(0.85–10.82)
Received renal dialysis	**3.86**	**(1.15–12.93)**
Had cancer other than non-melanoma skin	**5.23**	**(1.78–15.36)**
Pathogen type		
Gram-positive only	Reference	
Gram-negative only	**3.43**	**(1.79–6.60)**
Mixed gram types	**4.52**	**(2.62–7.78)**
Hospital characteristics		
Community hospital	Reference	
Academic hospital	1.10	(0.68–1.78)
Urban hospital	Reference	
Rural hospital	**2.34**	**(1.06–5.19)**

Infections de plaie chirurgicale / antibiotiques locaux

3.9%

The American surgeon.
Am Surg. 1976 Nov;42(11):849-52.

Wound infection: a prospective study of 7519 operations.

Stone AM, Tucci VJ, Isenberg HD, Wise L.

Abstract

Wound infection was prospectively studied in 7,519 consecutive operations after preoperative classification as clean, clean-contaminated, and infected. The overall infection rate was 3.9 per cent. Clean, 3.2 per cent; clean-contaminated, 4.4 per cent; contaminated, 12.4 per cent; infected, 16.2 per cent. Wound infection was not seasonally related or dependent on changes in house staff. In clean cases, the predominant role of Staphylococcus aureus (37%) has been superceded by enterococci (44%). In clean-contaminated cases, enterococci (43.5%) were the most common, followed by Escherichia coli (40.0%). In contaminated wounds, E. coli was most common (40.0%). The infected case category grew mixed flora (E. coli, 82 per cent; enterococci, 54 per cent, and Pseudomonas aeruginosa, 43 per cent). Nosocomial organisms were important only in the contaminated (14%) and infected (43%) categories. Antibiotic therapy before cultures are available should include agents with activity against enterococci as well as S aureus, and E. coli in clean cases.

9.4%

J Hosp Infect. 1992 May;21(1):29-37.

Microbiology of postoperative wound infection: a prospective study of 1770 wounds.

Twum-Danso K[1], Grant C, al-Suleiman SA, Abdel-Khader S, al-Awami MS, al-Breiki H, Taha S, Ashoor AA, Wosornu L.

Author information

Abstract

A prospective study of postoperative wound infection was carried out over a 12-month period. Intra-operative swabs from the patients' anterior nares, the opened viscus and parietes were cultured using standard bacteriological techniques. Of the 1770 wounds studied, 167 (9.4%) became infected. Wound infection rates, according to clinical wound types, were clean 5.9%, clean-contaminated 10.7%, contaminated 24.3% and dirty 52.9%. The figures according to microbiological wound types were clean 4.7%, and potentially, lightly and heavily contaminated 15.3%, 22.1% and 30.2% respectively. The commonest causative organisms were Staphylococcus aureus 23.7%, Escherichia coli 16.9%, Staphylococcus epidermidis 13.5% and Pseudomonas aeruginosa 13.0%. When isolated intra-operatively, Enterobacter spp., Proteus spp., Klebsiella spp. and P. aeruginosa appeared to have a high probability of causing postoperative wound infection, but the intra-operative isolation of Bacteroides sp. was a poor predictor of subsequent wound infection.

2.5%

J Pediatr Surg. 1990 Jan;25(1):125-9.

Postoperative wound infection in pediatric surgical patients: a study of 676 infants and children.

Bhattacharyya N[1], Kosloske AM.

Author information

Abstract

We conducted an epidemiologic study of postoperative wound infection in pediatric patients. Over a 14-month period, 676 patients who received an operative incision on the Pediatric Surgical service were entered. Demographic, nutritional, clinical, and laboratory data were collected. The patients were followed for development of postoperative wound infection. Cultures were taken from wounds to identify the offending organisms. Of the 676 patients, 137 were neonates, 197 infants, and 342 older children. Wound infection occurred in 17 patients (2.5%): 1 neonate (0.7%), 8 infants (4.1%), and 8 older children (2.3%). Infection rates according to wound classification were: clean 1.0%, clean-contaminated 2.9%, contaminated 7.9%, and dirty 6.3%. Heavily contaminated or dirty wounds were packed open in one third of cases, and allowed to heal by granulation. The largest group of wound infections followed operations on the gastrointestinal tract (10 patients, 267 operations, 3.7%). Staphylococcus aureus, Escherichia coli, and alpha hemolytic streptococcus were the most common wound pathogens. An increased rate of wound infection was associated with operative procedures longer than 1 hour, with the presence of an associated illness, and with emergency operations. Age, sex, nutritional status, and duration of preoperative hospital stay did not significantly alter the wound infection rate. It could be concluded that the incidence of wound infection was lower among pediatric surgical patients than the reported incidence in adult surgical patients. The greatest risk factors were those associated with local contamination of the surgical wound.

JOURNAL OF CLINICAL MICROBIOLOGY, Feb. 2000, p. 918–922

Epidemiology and Microbiology of Surgical Wound Infections

A. GIACOMETTI,[1]* O. CIRIONI,[1] A. M. SCHIMIZZI,[1] M. S. DEL PRETE,[1] F. BARCHIESI,[1] M. M. D'ERRICO,[2] E. PETRELLI,[3] AND G. SCALISE[1]

Monocentrique Italie 1993-1999
676 patients avec plaie infectée, maos pas données d'incidence
Chirurgie réparatrice, vasculaire, viscérale et orthopédique

-A definite case of surgical wound infection was defined as one in which there was any skin eruption or drainage at the surgical site that was positive for bacteria by culture within 60 days of a surgical procedure.
-On the other hand, a presumptive case was one in which there was any skin eruption or drainage at the surgical site that was either culture negative or unresponsive to appropriate antibiotic therapy for organisms obtained on culture.

Current and Emerging Topical Antibacterials and Antiseptics: Agents, Action, and Resistance Patterns

Deborah A. Williamson,[a,b] Glen P. Carter,[a,b] Benjamin P. Howden[a,b,c]

AMERICAN SOCIETY FOR MICROBIOLOGY | Clinical Microbiology Reviews®
July 2017

TABLE 1 Theoretical advantages and disadvantages of topical antimicrobial therapy for bacterial skin infections

Advantage/disadvantage
Advantages
May enable targeted delivery of a high concentration of antimicrobial to site of infection
Higher likelihood of adherence to treatment (e.g., in children)
Less potential for systemic side effects and toxicity
May avoid need for systemic antimicrobials
Ensures that site of infection is regularly inspected
Topical application allows use and development of agents that may not be able to be used systemically (e.g., neomycin or bacitracin)
Topical route of administration may be easier for patients and caregivers

Disadvantages

- Limited evidence base for clinical effectiveness
- Many agents associated with local allergy
- Limited understanding of potentially deleterious effects on skin microbiota
- Minimal depth of penetration, limiting use on intact skin
- Unquantified effects on wound healing process
- Widespread and unrestricted use is likely to select for bacterial resistance (e.g., fusidic acid and *Staphylococcus aureus*)
- Potential for storage in patient homes, with possibility of recurrent use and contamination
- Often combined with topical steroid therapy, meaning that primary prescribing indication may be for inflammation rather than infection
- Potential perception by both patients and prescribers as more "benign" than systemic antimicrobials
- May be difficult for some patients to apply to larger surface areas or skin folds

Cochrane Library

Cochrane Database of Systematic Reviews

Cochrane Database of Systematic Reviews 2016,

Topical antibiotics for preventing surgical site infection in wounds healing by primary intention (Review)

Heal CF, Banks JL, Lepper PD, Kontopantelis E, van Driel ML

-14 études randomisées 1967-2006
-6466 patients
-4 études analysées inclues des patients avec antibiothérapie systémique dans les deux bras
-Certaines études ont comme CJP la survenue de dermatite allergique pas l'ISO
-Soit ATB vs placebo
-Soit ATB vs antiseptiques

Dermatologique (cancérologie): 3
Réparation cutanée de traumatismes: 3
Circoncision: 2
Césarienne: 1
Appendicectomie: 1
PTH: 1
Chirurgie de la main: 1
Orifice ombilicale de laparoscopie: 1
Pacemaker:1

The type of topical antibiotic applied included:
neomycin/bacitracin/polymixin B (four trials)
chloramphenicol (two trials)
neomycin (one trial)
bacitracin (two trials)
rifamycin (two trials)
mupirocin (two trials)
soframycin (two trials)
fusidic acid (one trial)

ATB vs placebo pour ISO 8 études
RR 0.61, 95% CI 0.42 to 0.87; moderate-quality evidence downgraded once for risk of bias

ATB vs placebo pour dermite allergique 3 études
RR 3.94, 95% CI 0.46 to 34.00; very low-quality evidence, downgraded twice for risk of bias, once for imprecision

ATB vs antiseptique pour ISO 5 études
RR 0.49, 95% CI 0.30 to 0.80 moderate-quality evidence downgraded once for risk of bias

ATB vs antiseptique pour dermite allergique 2 études
RR 0.97, 95% CI 0.52 to 1.82; very low-quality evidence, downgraded twice for risk of bias and once for imprecision

Topical antibiotics applied to surgical wounds healing by primary intention probably reduce the risk of SSI relative to no antibiotic, and relative to topical antiseptics (moderate quality evidence)

Infections cutanées nosocomiales et « nouveaux » moyens thérapeutiques en infectiologie

Efficacy and tolerability of a cocktail of bacteriophages to treat burn wounds infected by *Pseudomonas aeruginosa* (PhagoBurn): a randomised, controlled, double-blind phase 1/2 trial

LID octobre 2018

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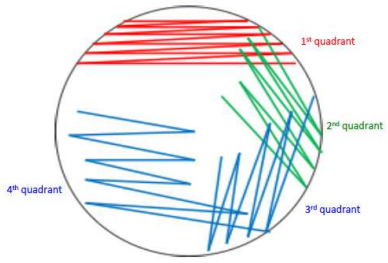
Cocktail de 12 phages pour infections de plaie à *Pseudomonas aeruginosa,* 12 patients versus 13 patients avec pansement à l'argent



CJP : médiane de temps pour
Diminuer l'inoculum de deux quadrants

144h avec phages
47h avec pansement argent

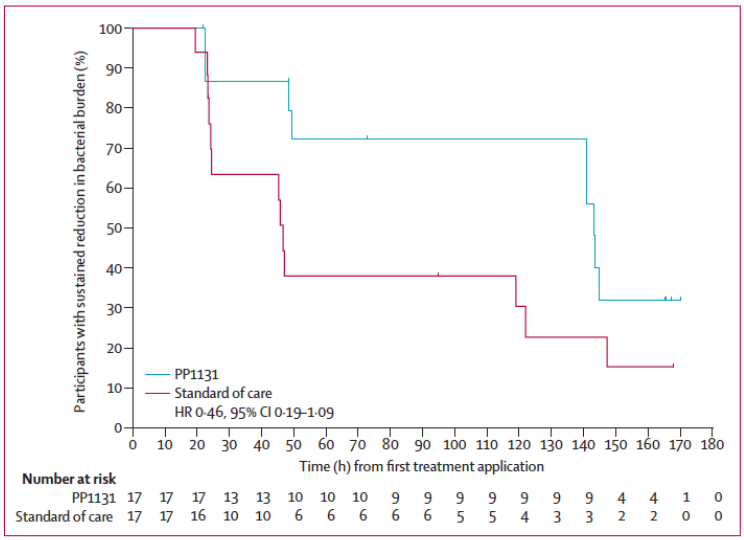


Figure 3: **Time to observe reduction in bacterial burden for all areas**
Kaplan-Meier analysis of median time to sustained semi-quantitative reduction of two or more quadrants of daily bacterial burden across all wounds compared with day 0. HR=hazard ratio. PP1131=cocktail of 12 natural lytic anti-*Pseudomonas aeruginosa* bacteriophages.

Proposition d'étude

Proposition de registre prospectif de cellulites des membres présentant du matériel étranger orthopédique

Wouthuyzen-Bakker M JBJI 2018

- Cellulite des membres avec matériel d'ostéosynthèse ou arthroplastie hors ISO précoce sans argument clinique ou radiologique direct pour une infection du matériel
- Documentation iconographique par photo
- Documentation microbiologique si possible
- Traitement antibiotique avec spectre anti-streptococcique en première intention puis anti-staphylococcique si échec
- Suivi clinique régulier + Médecine nucléaire à 3 mois
- Evaluation des facteurs de risque de survenue d'une infection associée au matériel

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Research Paper

Erysipelas or cellulitis with a prosthetic joint *in situ*

22 patients

Isolated *Streptococcus* spp	
Group B streptococci	
S. agalactiae	22.7%
Not specified	4.5%
Group C streptococci	
S. dysgalactiae	27.3%
Not specified	4.5%
Group G streptococci	
Not specified	27.3%
Beta hemolytic streptococci not specified	13.6%

Days between skin infection and onset PJI	3 (1 – 7)
Same day	23.8%
1 – 5 days	42.9%
6 – 10 days	14.2%
> 10 days	19.1%