

ABCES, MORSURES, BURSITES, ARTHRITES POST- TRAUMATIQUES, PIED DIABETIQUE

Ilker Uçkay, 20.10.2014



Display Settings: Abstract

Am Fam Physician. 2010 Apr 1;81(7):893-9.

Skin and soft tissue infections in immunocompetent patients.

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SORT: KEY RECOMMENDATIONS FOR PRACTICE

Clinical recommendation	Evidence rating	References	Comments
Wound and blood cultures are not necessary in patients with uncomplicated SSTIs because results rarely alter management decisions.	C	17,18	Retrospective analyses
Incision and drainage alone is often curative for uncomplicated SSTIs with abscesses measuring less than 5 cm in diameter.	A	4,20,21	Retrospective chart review; randomized, double-blind trials
When surgical drainage of SSTIs is performed, there is no difference in clinical outcomes between wound irrigation with tap water versus sterile water.	A	22,23	Prospective trials from urban pediatric emergency departments
When initiating empiric antimicrobial therapy for uncomplicated SSTIs, physicians should consider local prevalence of pathogens, including MRSA, and resistance patterns.	C	12	Expert opinion



Should the methicillin-resistant *Staphylococcus aureus* carriage status be used as a guide to treatment for skin and soft tissue infections? *

Alexandra Reber^{a,*}, Andreea Moldovan^{a,*}, Nathalie Dunkef^a, Stéphanie Emonet^b, Peter Rohner^{b,c}, Phedon Tahintzi^f, Pierre Hoffmeyer^f, Stephan Harbarth^g, Ilker Uçkay^{a,d}

Associated with failure	Univariée	Multivariée
Anti-MRSA antibiotics	0.4 (0.1-2.6)	0.4 (0.1-3.3)
Duration antibiotics	1.0 (1.0-1.0)	1.0 (1.0-1.0)
• 12- 20 days vs. < 12 days	1.0 (0.5-2.1)	0.7 (0.4-1.4)
• >20 days v.s <12 days	0.7 (0.3-1.5)	0.5 (0.3-1.1)
Duration IV > 4d vs. <4 days	1.8 (0.1-3.3)	1.0 (1.0-1.0)

J Antimicrob Chemother. 2010 May;65(5):1008-14.

Infectious olecranon and patellar bursitis: short-course adjuvant antibiotic therapy is not a risk factor for recurrence in adult hospitalized patients.

[Perez C](#), [Huttner A](#), [Assal M](#), [Bernard L](#), [Lew D](#), [Hoffmeyer P](#), [Uckay](#)

Total duration of total antibiotic therapy	1.0 (1.0-1.0)	0.9 (0.8-1.1)
8-14 days compared with ≤ 7 days	0.4 (0.1-1.0)	0.6 (0.1-2.9)
>14 days compared with ≤ 7 days	0.7 (0.3-1.5)	0.9 (0.1-10.7)
Total duration of intravenous therapy	0.9 (0.8-1.1)	1.1 (1.0-1.3)
3 days compared with ≤ 2 days	0.4 (0.1-1.4)	0.4 (0.1-3.9)
>3 days compared with ≤ 2 days	0.7 (0.4-1.4)	0.7 (0.1-1.5)

Frequent pathogens ?

Primary native arthritis **S. aureus**

Arthritis SSI **S. aureus**

Arthritis injection **S. aureus**

Bites **Pasteurella**

Post-traumatic arthritis

?

Posttraumatic septic arthritis is a rarity

Table 2. Summary of reports with a proportional display of the origin of septic arthritis, 1945-2010

Inoculation origin	Kaandorp, 1997 ⁹	Stutz, 2000 ¹⁶	Geissman, 2008 ³	Morgan, 1996 ⁴	Weston, 1999 ¹	Eder, 2003 ¹⁷	Gomez-Rodriguez, 2001 ⁸
Presumably haematogenous (primary vanae joint arthritis)	68%	54%	NA	72%	NA	NA	NA
Surgical site infection (total)	23%	42%	44%	NA	NA	16%	NA
- postoperative	21%	28%	26%	NA	NA	5%	NA
- intra-articular injection	2%	10%	NA	NA	3%	9%	NA
- arthrocentesis	NA	4%	18%	NA	NA	2%	NA
Penetrating trauma	7%	4%	NA	22%	9%	12%	8%

NA=not available

Di Benedetto et al., Posttraumatic arthritis. European Musculoskeletal Review 2012 (in press)

4 origins in pathogenesis & microbiology

Bites

Thorn punctures

Trauma in terrestrial environments

Trauma in aquatic environments

Bites - almost exclusively Gram-negative

Pasteurella multocida for dogs and cats

Eikenella corrodens almost exclusively restricted to the human oral flora

Band	Taxon	Primary infection (19 samples)	Secondary infection (10 samples)
1	<i>Fusobacterium nucleatum</i> ssp. <i>animalis</i>	13	≥7
2	<i>Fusobacterium nucleatum</i> ssp. <i>nucleatum</i>	13	≥8
3	<i>Leptotrichia</i> sp.	p	n
4	<i>Lactobacillus</i> sp.	p	n
5	<i>Tannerella</i> sp.	n	p
6	<i>Porphyromonas endodontalis</i>	≥11	p
7	<i>Anaeroglobus geminatus</i>	≥9	≥5
8	<i>Pseudomonas</i> sp.	n	≥5
9	<i>Pseudoramibacter alactolyticus</i>	p	p
10	<i>Parascardovia denticolens</i>	p	n
11	<i>Dialister invisus</i>	p	n
12	<i>Enterococcus faecalis</i>	n	≥4
13	<i>Synergistetes</i>	≥11	n
14	<i>Atopobium</i> sp.	p	n
15	<i>Prevotella</i> sp.	p	n
16	<i>Oribacterium</i> sp.	pn	n
17	<i>Propionibacterium</i> sp.	n	≥4
18	Comamonadaceae		
19	Burkholderiales		
20	Actinomycetes sp.		

Chugai et al., Molecular Characterization of the Microbial Flora Residing at the Apical Portion of Infected Root Canals of Human Teeth – J Endod. 2011

Pasteurella multocida

(Weber DJ, et al. Pasteurella multocida infections. Medicine 1984, 63:133-154.)

- bâtonnet gram négatif
- dans la gueule de:
 - 80% de chats,
 - 50% de chiens et cochons,
 - 14% de rats,
 - 5% des vétérinaires

Thorn punctions - plants are Gram-negative

Pantoea agglomerans (*Enterobacter agglomerans*) is the leading agent in thorn-related infections (54%).

In contrast to humans (or mammals) plants have symbioses with Gram-negative bacteria on the surface.

Attachment of Plant Pathogenic Bacteria to Plant Surfaces

Annual Review of Phytopathology
Vol. 30: 225-243 (Volume publication date September 1992)
DOI: 10.1146/annurev.py.30.090192.001301

Martin Romantschuk

Plants are Gram-negative

TRPLSC-099; No. of Pages 5

ARTICLE IN PRESS

Opinion

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PRESS

Special Issue: Specificity of plant-enemy interactions

Plants as alternative hosts for *Salmonella*

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Recent findings show that many human pathogenic bacteria can use multiple host organisms. For example, *Salmonella Typhimurium* can use plants as alternative hosts to humans and other animals. These bacteria are

points to a directed process in which the bacteria infect various plants and use them as viable hosts (Table 1) [11–22]. The ability to infect and grow on such diverse hosts is a remarkable example of the lack of specificity seen in so

Directives et recommandations

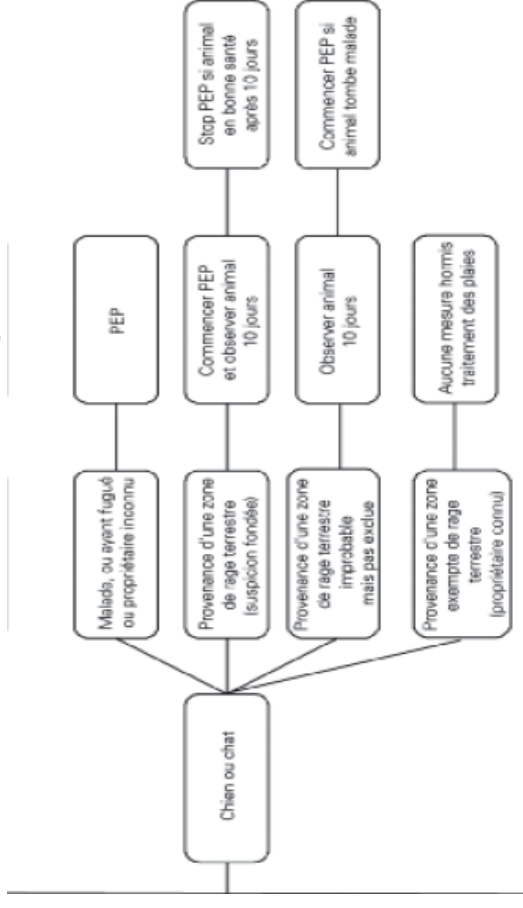
Prophylaxie pré- et post-expositionnelle de la rage l'homme

Juillet 2004
Office fédéral de la santé publique, groupe de travail Rage, Commission suisse pour les vaccinations

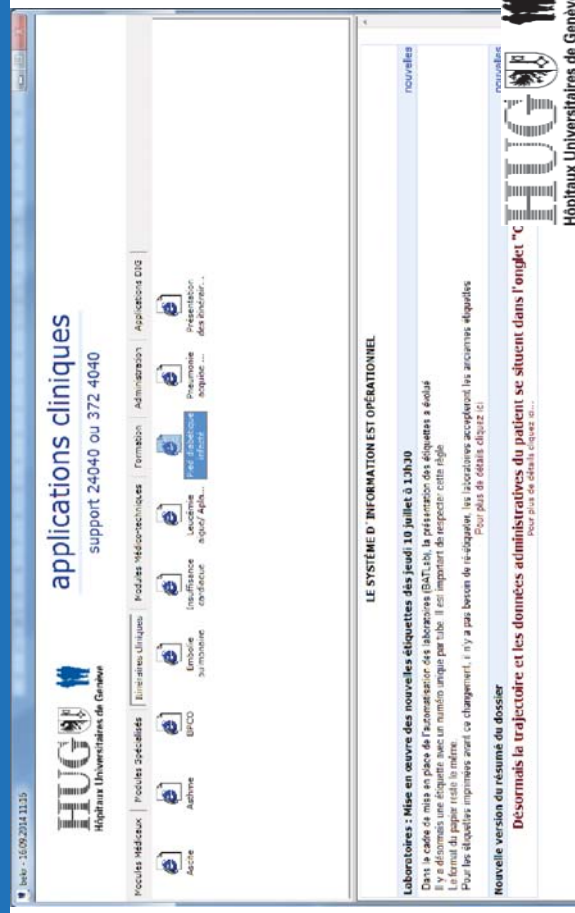
Potential clinical conclusions ?

In the case of empirical
treatment,
a broader spectrum is more
appropriate than simple anti-
Gram-positive therapy ????

OFSP - Rage



L'itinéraire clinique du pied diabétique infecté



Guidelines pour les pieds diabétiques

Sujet

Evidence

- Traitement antibiotique empirique B-II
- Prendre note du MRSA C-III
- Antibiotique à large spectre B-III
- Antibiotiques p.o. A-II
- Soins locaux A-I

Lipsky et al. IDSA. Diagnosis and treatment of diabetic foot infections. Plast Reconstr Surg. 2007

Table 8. Suggested empirical antibiotic regimens, based on clinical severity, for diabetic foot infections.

Route and agent(s)	Mild	Moderate	Severe
Advised route	Oral for most	Oral or parenteral, based on clinical situation and agent(s) selected	Intravenous, at least initially
Dicloxacillin	Yes	...	...
Clindamycin	Yes	...	...
Cephalexin	Yes	...	...
Trimethoprim-sulfamethoxazole	Yes	Yes	...
Amoxicillin/clavulanate	Yes	Yes	...
Levofloxacin	Yes	Yes	...
Cefoxitin	...	Yes	...
Ceftriaxone	...	Yes	...
Ampicillin/sulbactam	...	Yes	...
Linezolid ^a (with or without aztreonam)	...	Yes	...
Daptomycin ^a (with or without aztreonam)	...	Yes	...
Ertapenem	...	Yes	...
Cefuroxime with or without metronidazole	...	Yes	...
Ticarcillin/clavulanate	...	Yes	...
Piperacillin/tazobactam	...	Yes	Yes
Levofloxacin or ciprofloxacin with clindamycin	...	Yes	Yes
Impenem-cilastatin	...	...	Yes
Vancomycin ^a and ceftazidime (with or without metronidazole)	...	...	Yes

Antibiotiques topiques ? Antiseptiques ?

Pour la zone grise entre colonisation et infection ?

Pas de littérature basée sur l'évidence forte

Opinion d'experts partagée, plutôt favorable pour les antiseptiques, mais pas antibiotiques topiques

Toe osteomyelitis of the diabetic foot



IRM ?

Diabetes Care. 2010 Jul;33(7):1602-3. Epub 2010 Apr 22.

Midfoot and hindfoot bone marrow edema identified by magnetic resonance imaging in feet of subjects with diabetes and neuropathic ulceration is common but of unknown clinical significance.

[Thorning C](#), [Gedroyc WM](#), [Tyler PA](#), [Dick EA](#), [Hui E](#), [Valabhji J](#).
Department of Radiology, St Mary's Hospital, Imperial College Healthcare National Health Service Trust, London, UK

METHODS: MRIs performed over 6 years looking for osteomyelitis associated with neuropathic lesions.

RESULTS: 70 MRI studies were assessed. Signal change were present in 21 (30%) subjects and did not predict future Charcot neuroarthropathy or infection at that site.

Repeat MRIs in 11 subjects with such areas found that none had progressed, six had improved, and two had resolved; in 29 subjects without such areas, five had developed new areas.

CONCLUSIONS: Bone marrow edema in the midfoot and hindfoot of subjects with diabetes and neuropathic lesions is common, often transient, and of unknown significance.

Merci beaucoup !!!

