Antibiothérapie : quand la débuter ?

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Je n’ai aucun conflit d’intérêt à déclarer

ANTIBIOTHERAPIE : UNE INJONCTION PARADOXALE

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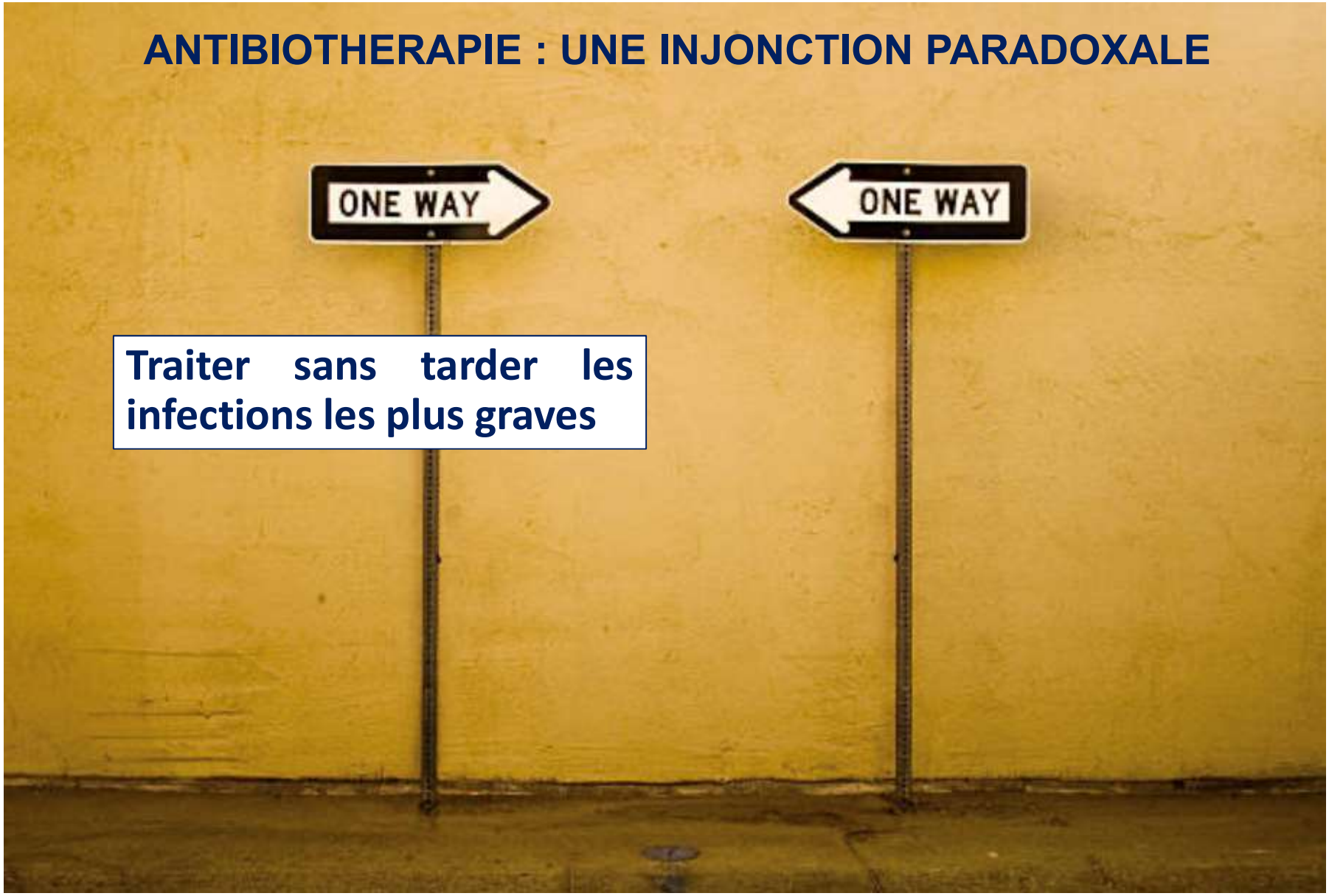
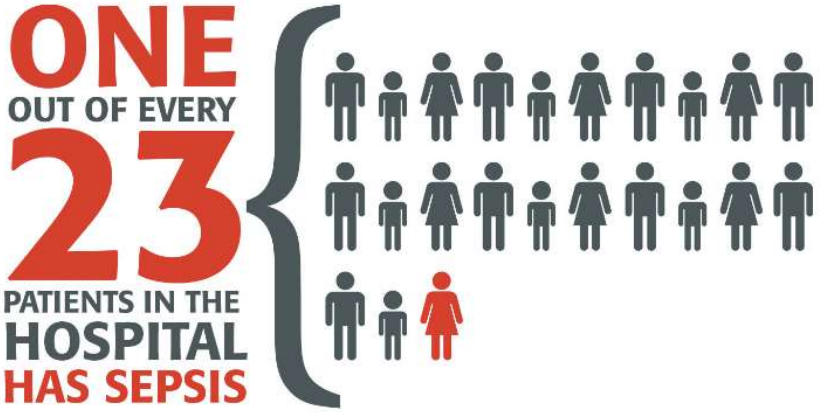


En Europe

3,4 million

700 000 do not survive

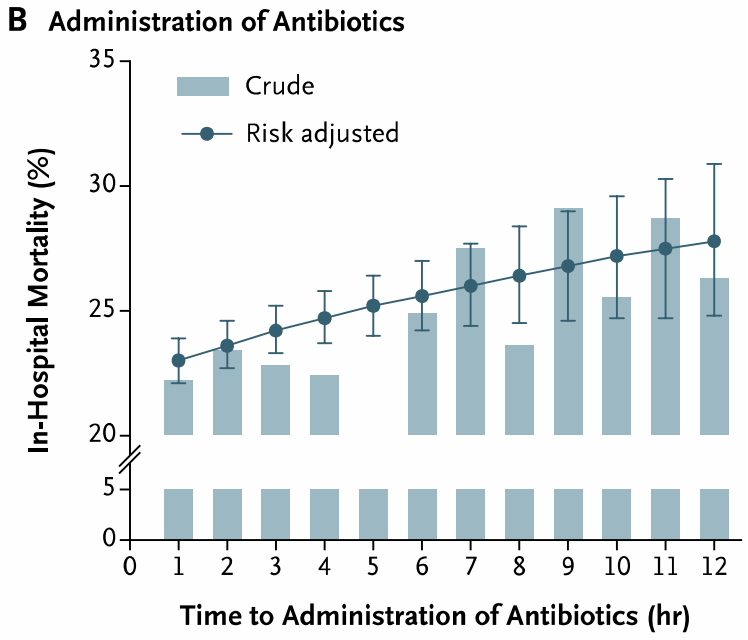
+ 1/3 of survivors die during the following year



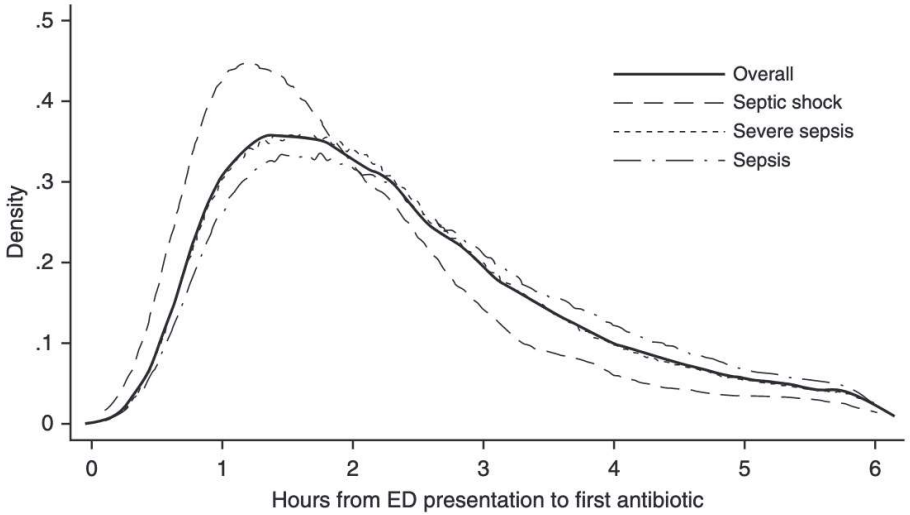
https://www.europeansepsisalliance.org/sepsis

Intervalle entre 1er contact et administration de l'antibiotique prédit la mortalité

Pour chaque heure supplémentaire (contact EMS – ATB administré aux urgences) : **+3% risque de mortalité hospitalière**



Seymour et al., 2017



Fully adjusted model, in each subgroup			
Sepsis only	1.09	1.00–1.19	0.046
Severe sepsis only	1.07	1.01–1.24	0.014
Septic shock only	1.14	1.06–1.23	0.001

Episode Severity	# patients	1st lactate mmol/L	Time to 1st lactate, h	Time to Abx, h	Hospital Mortality, %
Sepsis	12,122 (35%)	1.3 (1.0-1.5)	1.1 (0.6-2.6)	2.3	3.9%
Severe Sepsis	18,210 (52%)	2.2 (1.5-2.7)	0.9 (0.6-2.0)	2.1*	8.8%
Septic Shock	4,668 (13%)	4.6 (4.0-5.9)	0.8 (0.5-1.7)	1.7	26.0%

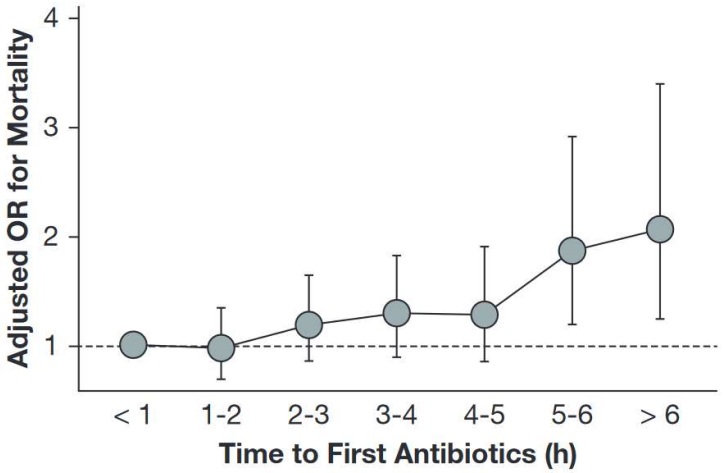
** imputed*

Lui et al, 2017

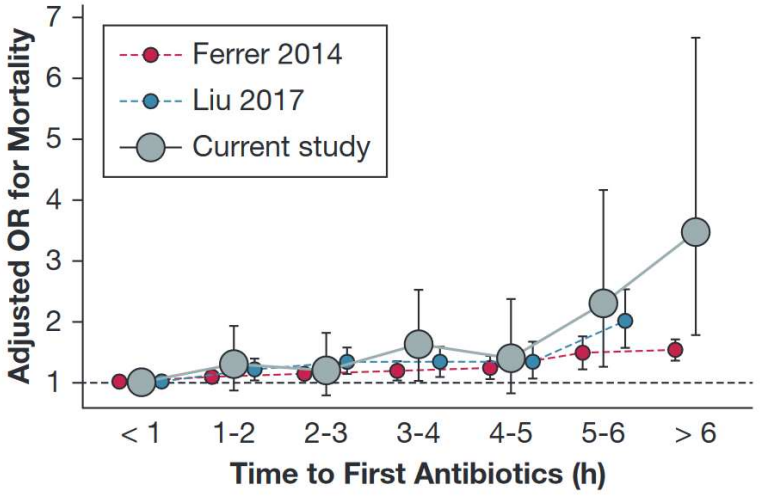
Intervalle entre admission aux urgences administration de l'antibiotique

Médiane antibiotiques : 166 minutes
Chaque heure de plus : 10% d'augmentation de la probabilité de décès à 1 an

Mortalité 30 jours



Mortalité hospitalière



Peltan et al., 2019

Empiric Antibiotic Treatment Reduces Mortality in Severe Sepsis and Septic Shock From the First Hour: Results From a Guideline-Based Performance Improvement Program*

Ricard Ferrer, MD, PhD[1]; Ignacio Martin-Loeches, MD, PhD[2]; Gary Phillips, MAS[3]; Tiffany M. Osborn, MD, MPH[4]; Sean Townsend, MD[5]; R. Phillip Dellinger, MD, FCCP, FCCM[6]; Antonio Artigas, MD, PhD[2]; Christa Schorr, RN, MSN[6]; Mitchell M. Levy, MD, FCCP, FCCM[7]

Retard 1h = 1% de mortalité

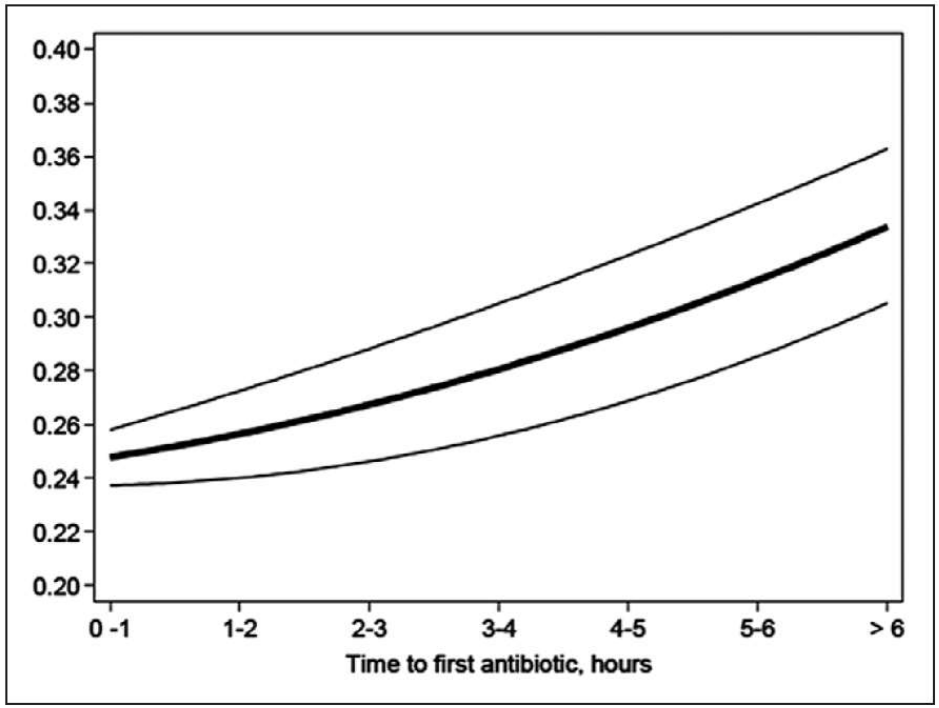
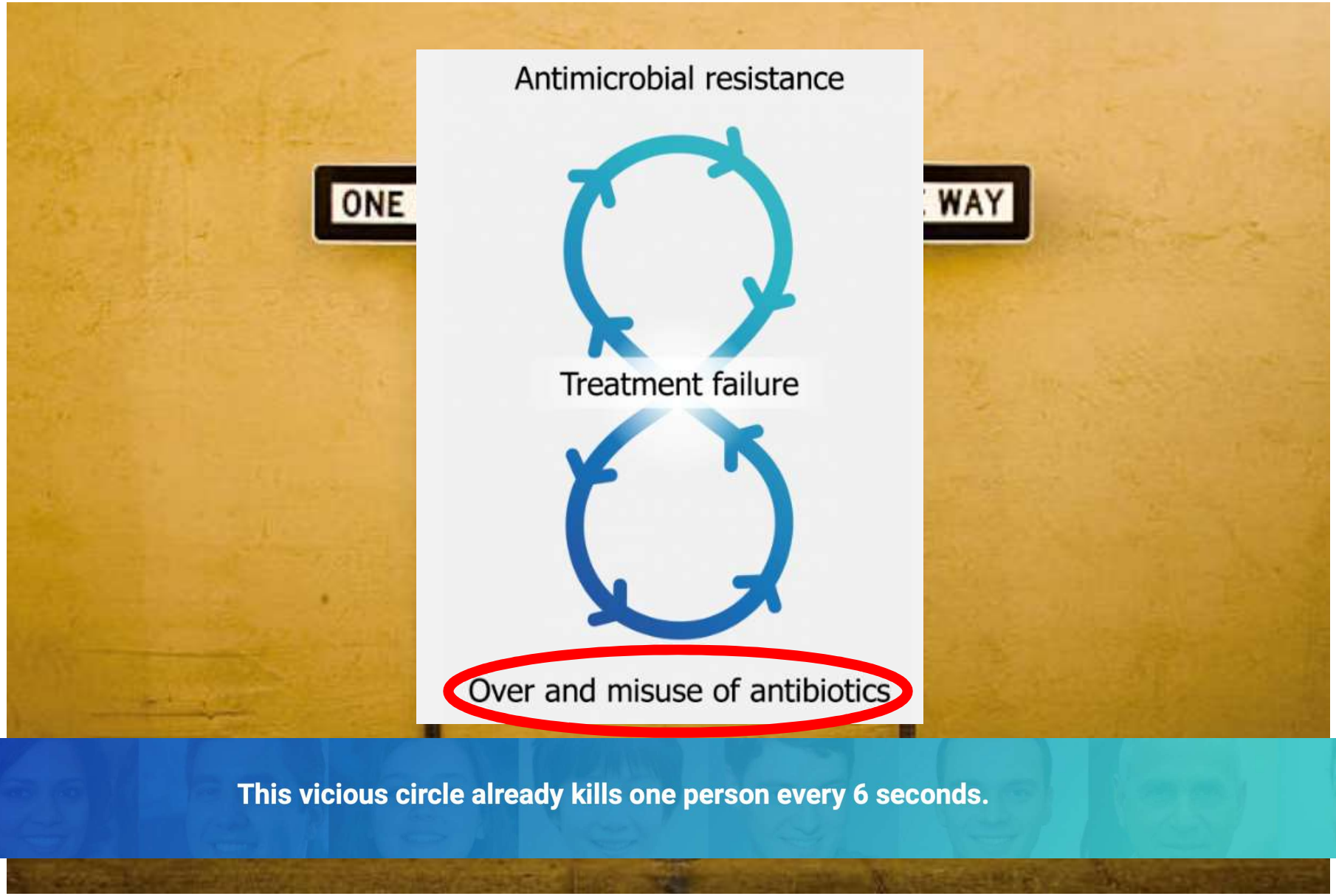


Figure 2. Predicted hospital mortality and the associated 95% CIs for time to first antibiotic administration. The results are adjusted by the sepsis severity score (SSS), ICU admission source (emergency department [ED], ward, vs ICU), and geographic region (Europe, United States, and South America). Probability of hospital mortality is based on the subject having the following specific characteristics: the patient is from the United States, admission source is the ED, and the SSS is 52 (median of all observations).

Peltan et al., 2014

ANTIBIOTHERAPIE : UNE INJONCTION PARADOXALE



This vicious circle already kills one person every 6 seconds.

Global burden of bacterial antimicrobial resistance in 2019: a systematic analysis

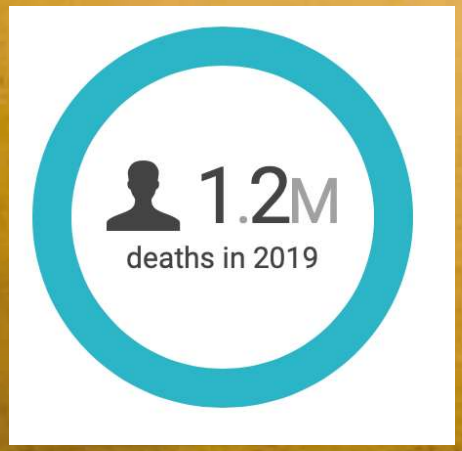
*Antimicrobial Resistance Collaborators**

Summary

Background Antimicrobial resistance (AMR) poses a major threat to human health around the world. Previous

Lancet 2022; 399: 629–55

VIH (680000) et malaria (627000)



The overlooked pandemic of antimicrobial resistance

Navinpeep/Getty Images

Published Online
January 20, 2022
https://doi.org/10.1016/
S0140-6736(22)00087-3

As COVID-19 rages on, the pandemic of antimicrobial resistance (AMR) continues in the shadows. The toll taken by AMR on patients and their families is largely invisible but is reflected in prolonged bacterial infections that extend hospital stays and cause needless deaths.[1] Moreover, AMR disproportionately affects poor individuals who have little access to second-line, more expensive antibiotics that could work when first-line drugs fail.

Previous attempts have been made to accurately estimate the global burden of AMR, both to focus policy makers on the extent of the problem and to

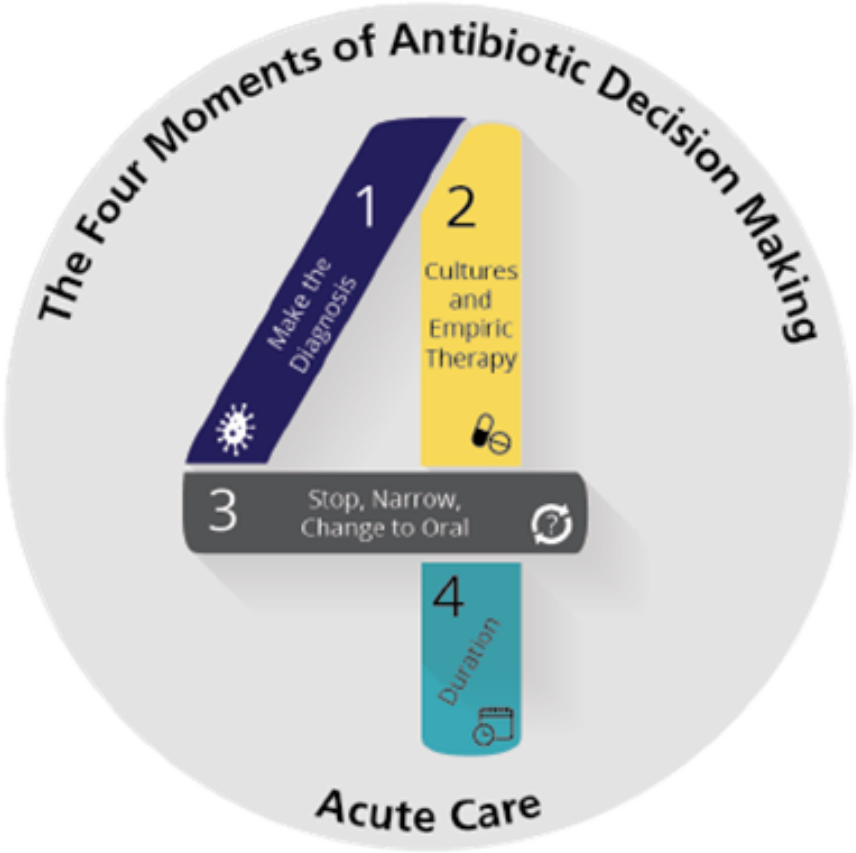
major bacterial pathogens covered in this study, only pneumococcal pneumonia is preventable through vaccination. Preventive vaccines against viral pathogens including influenza, respiratory syncytial virus, and rotavirus could be effective in reducing the need for treatment, thereby reducing inappropriate antibiotic consumption.[9–12] In high-income countries, improved water and sanitation, public health, and hospital hygiene have been the primary ways in which infections have been controlled, but these methods have been difficult to implement in resource-poor settings despite economic progress.

Antibiothérapie: les règles d'or

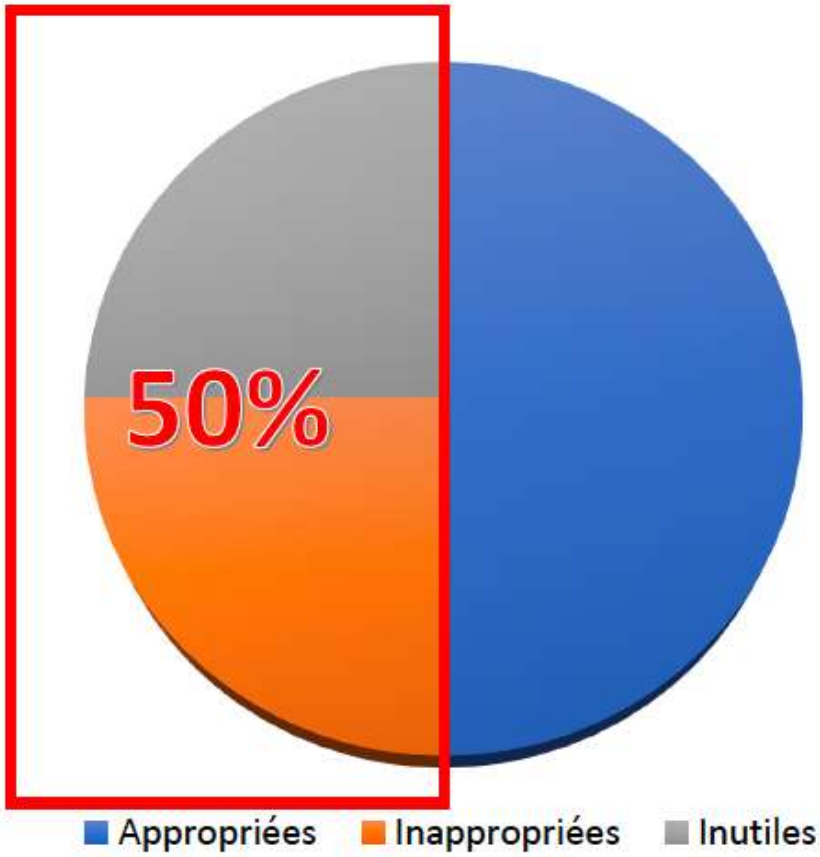
Quand faut-il prescrire un antibiotique ?

1. *Mon patient a-t-il des signes de gravité?*
2. *Ai-je un diagnostic précis nécessitant une ATB?*
3. *Mon patient a t'il <500PNN ?*

Antibiothérapie: les règles d'or



Est-ce que mon antibiothérapie est nécessaire ? adaptée ?

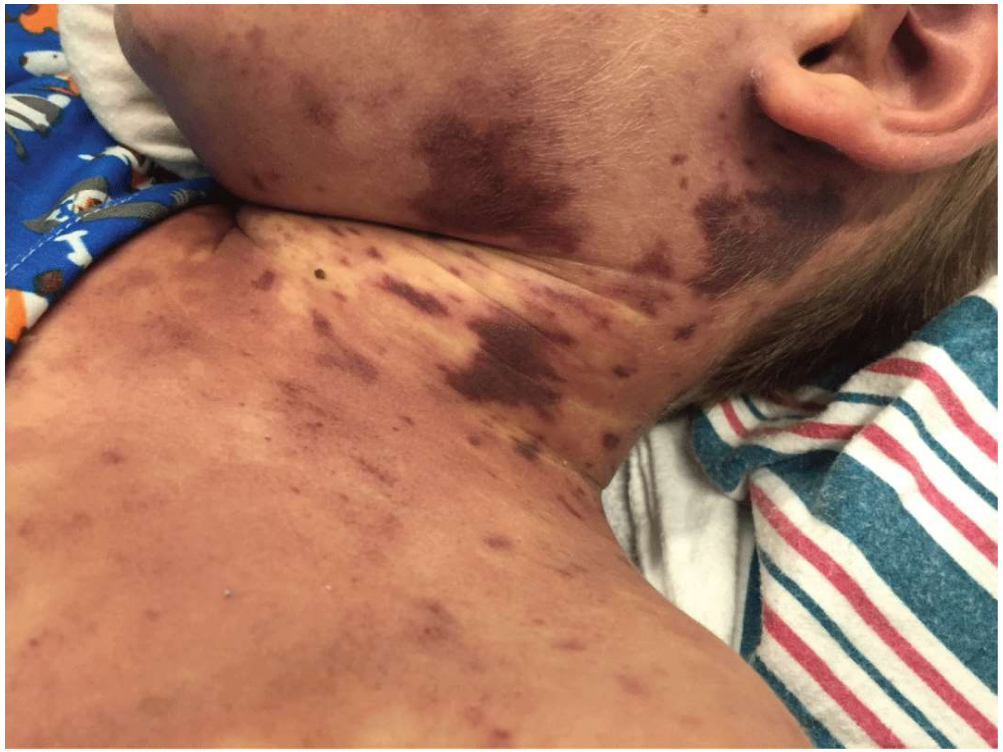


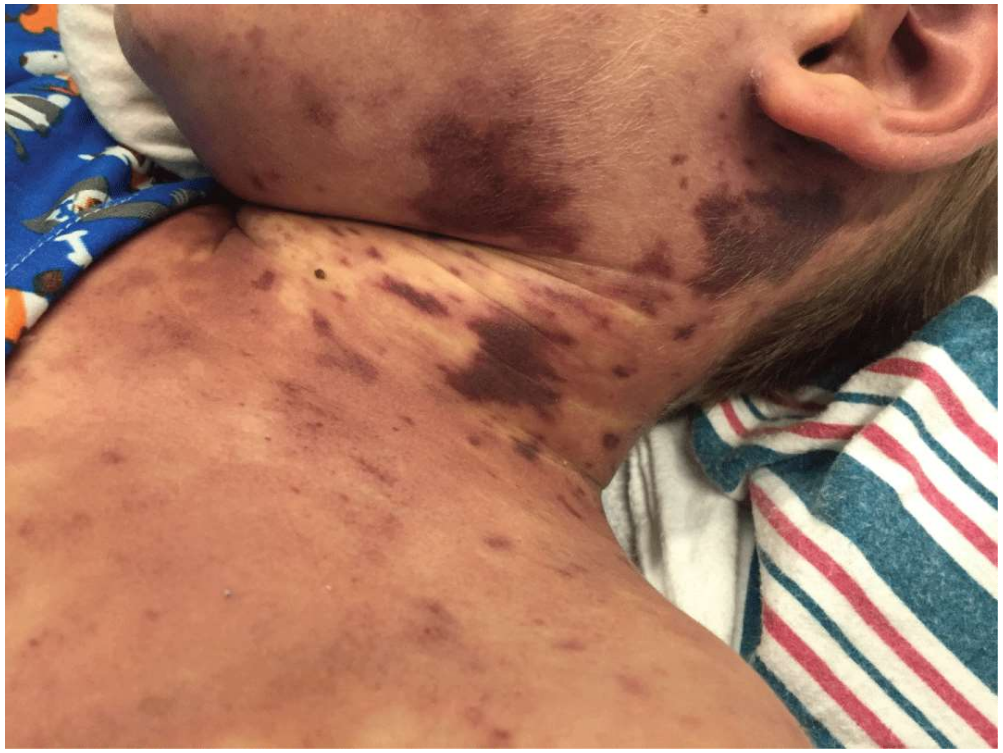
20-40% des patients diagnostiqués « sepsis » aux urgences sont, au final, non infectés

Jones et al, 2010; Montassier et al., 2014


FAST&
FURIOUS


FAST&
FURIOUS





Hour-1 Bundle

Initial Resuscitation for Sepsis and Septic Shock

Surviving Sepsis Campaign

MEDICAL EMERGENCY

Initiate bundle upon recognition of sepsis/septic shock.

May not complete all bundle elements within one hour of recognition.

1 Measure lactate level.

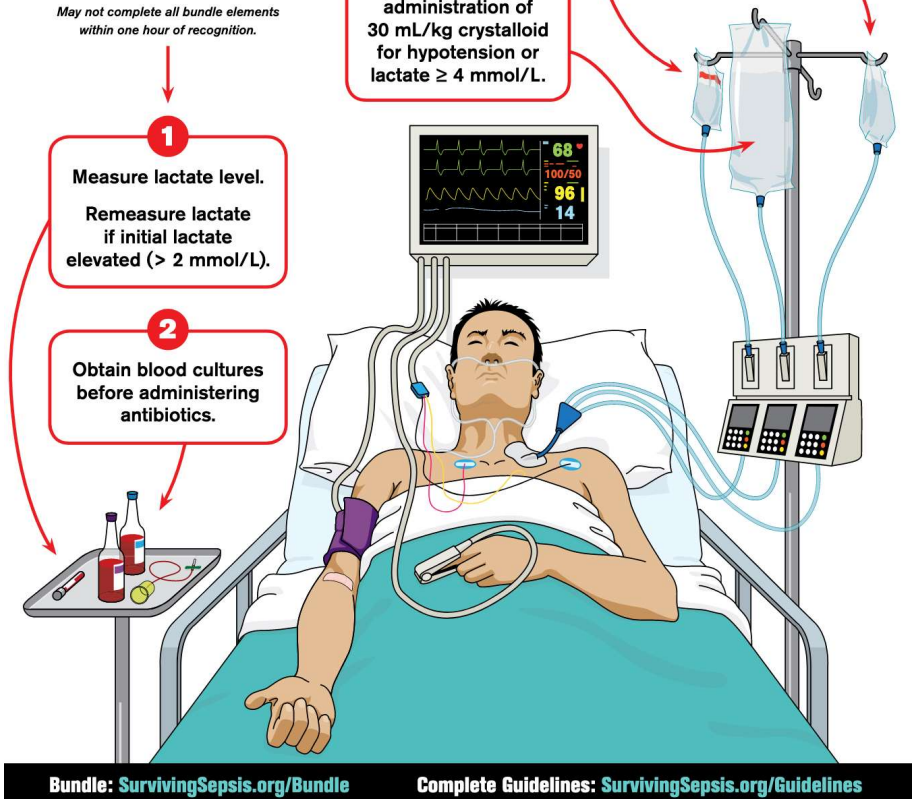
Remeasure lactate if initial lactate elevated (> 2 mmol/L).

2 Obtain blood cultures before administering antibiotics.

3 Administer broad-spectrum antibiotics.

4 Begin rapid administration of 30 mL/kg crystalloid for hypotension or lactate ≥ 4 mmol/L.

5 Apply vasopressors if hypotensive during or after fluid resuscitation to maintain a mean arterial pressure ≥ 65 mm Hg.



Bundle: SurvivingSepsis.org/Bundle **Complete Guidelines:** SurvivingSepsis.org/Guidelines

Surviving Sepsis Campaign®

Antibiotic Timing

	Shock is present	Shock is absent
Sepsis is definite or probable	☑ Administer antimicrobials ***immediately***, ideally within 1 hour of recognition.	☑ Administer antimicrobials ***immediately***, ideally within 1 hour of recognition.
Sepsis is possible	☑ Administer antimicrobials ***immediately***, ideally within 1 hour of recognition.	☑ Rapid assessment* of infectious vs. noninfectious causes of acute illness. ☑ Administer antimicrobials ***within 3 hours*** if concern for infection persists.

**Rapid assessment includes history and clinical examination, tests for both infectious and noninfectious causes of acute illness, and immediate treatment of acute conditions that can mimic sepsis. Whenever*

Recommendations

12. For adults with possible septic shock or a high likelihood for sepsis, we recommend administering antimicrobials immediately, ideally within one hour of recognition.

Strong recommendation, low quality of evidence (septic shock)
Strong recommendation, very low quality of evidence (sepsis without shock)

14. For adults with possible sepsis without shock, we suggest a time-limited course of rapid investigation and if concern for infection persists, the administration of antimicrobials within 3 hours from the time when sepsis was first recognized.

Weak recommendation, very low quality of evidence

15. For adults with a low likelihood of infection and without shock, we suggest deferring antimicrobials while continuing to closely monitor the patient.

Weak recommendation, very low quality of evidence

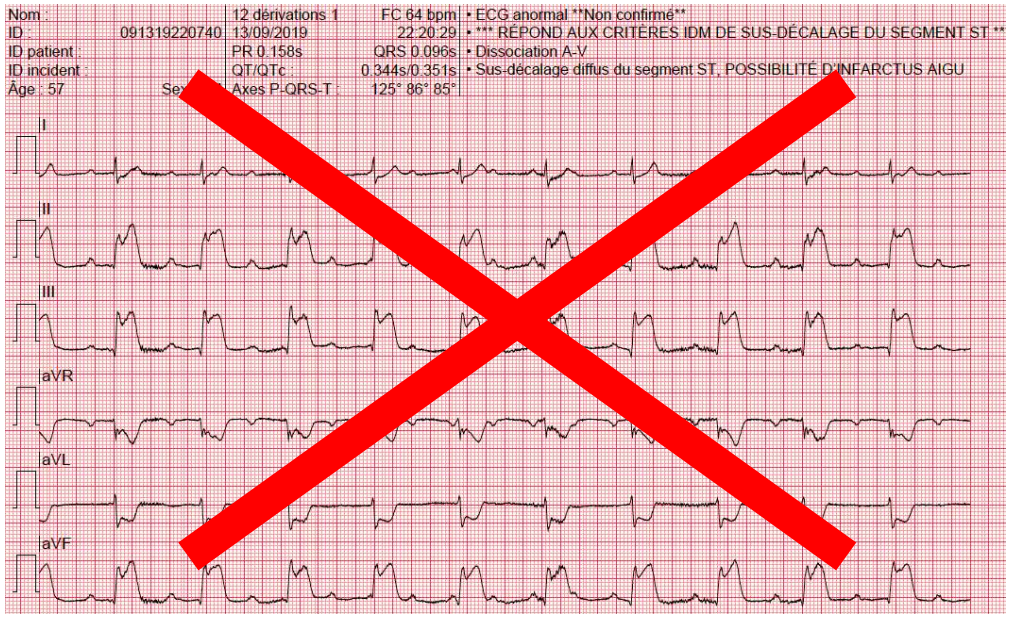
Surviving Sepsis Campaign

Administering antimicrobials within an hour of recognition

Among 50,496 adults with sepsis seen in 152 US ED:
=> median time from ED arrival until antibiotics in 2018 : **3.7 hours**

Prescott et al., 2022

Beaucoup de challenges ...



Aucun test unique n'établit de manière précise et fiable un diagnostic de sepsis

Epidemiology of Quick Sequential Organ Failure Assessment Criteria in Undifferentiated Patients and Association With Suspected Infection and Sepsis

RESULTS: Of 1,004,347 hospitalized patients, 271,500 (27.0%) were qSOFA-positive on admission. Compared with qSOFA-negative patients, qSOFA-positive patients were older (median age, 65 vs 58 years), required ICU admission more often (28.5% vs 6.5%), and had higher mortality (6.7% vs 0.8%) ($P < .001$ for all comparisons).

CONCLUSIONS: Only one in three patients who are qSOFA-positive on admission has suspected infection, and one in six has sepsis.

Anand et al, 2019

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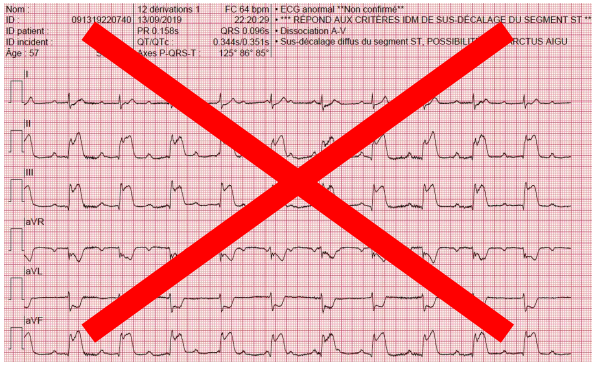
« Dear qSOFA, we're sorry to say that we don't like you »

Kalil, 2019

Beaucoup de challenges ...

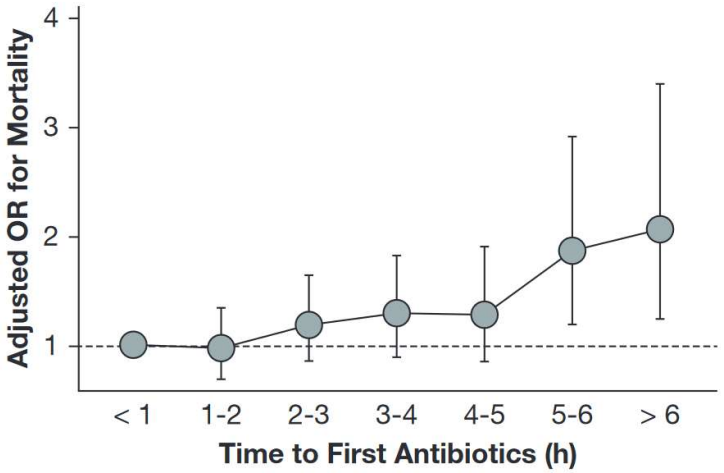


- Améliorer le screening/détection/reconnaissance du sepsis
- Diminuer le temps de premier contact médical
- Minimiser le délai entre la prescription et l'administration de l'antibiotique

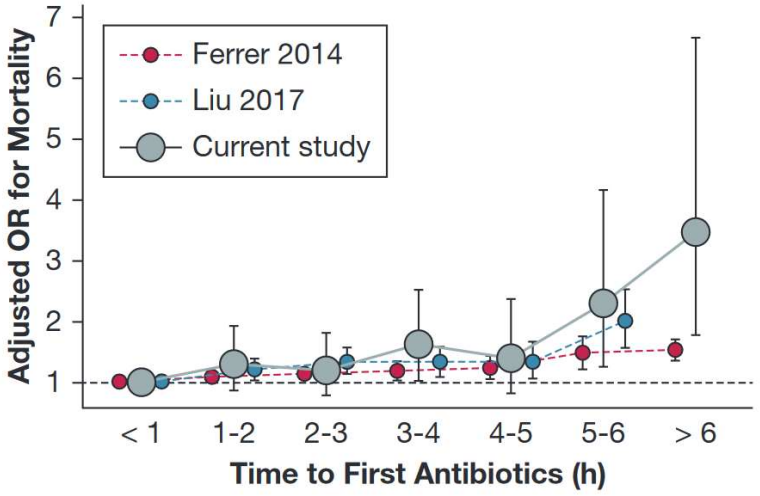
Intervalle entre admission aux urgences administration de l'antibiotique

Médiane antibiotiques : 166 minutes
Chaque heure de plus : 10% d'augmentation de la probabilité de décès à 1 an

Mortalité 30 jours



Mortalité hospitalière



Peltan et al., 2019

Il y a quand même 3 limites :

1) **La sévérité:** association time-to-ATB / mortalité varie suivant la gravité ...
2) **On combine délais très courts / délais très longs:** mais la relation entre mortalité et délai de l'antibiothérapie n'est pas linéaire ...
3) **Ajustement insuffisant sur la présentation clinique et les comorbidités** : l'administration de l'ATB n'est pas aléatoire ...

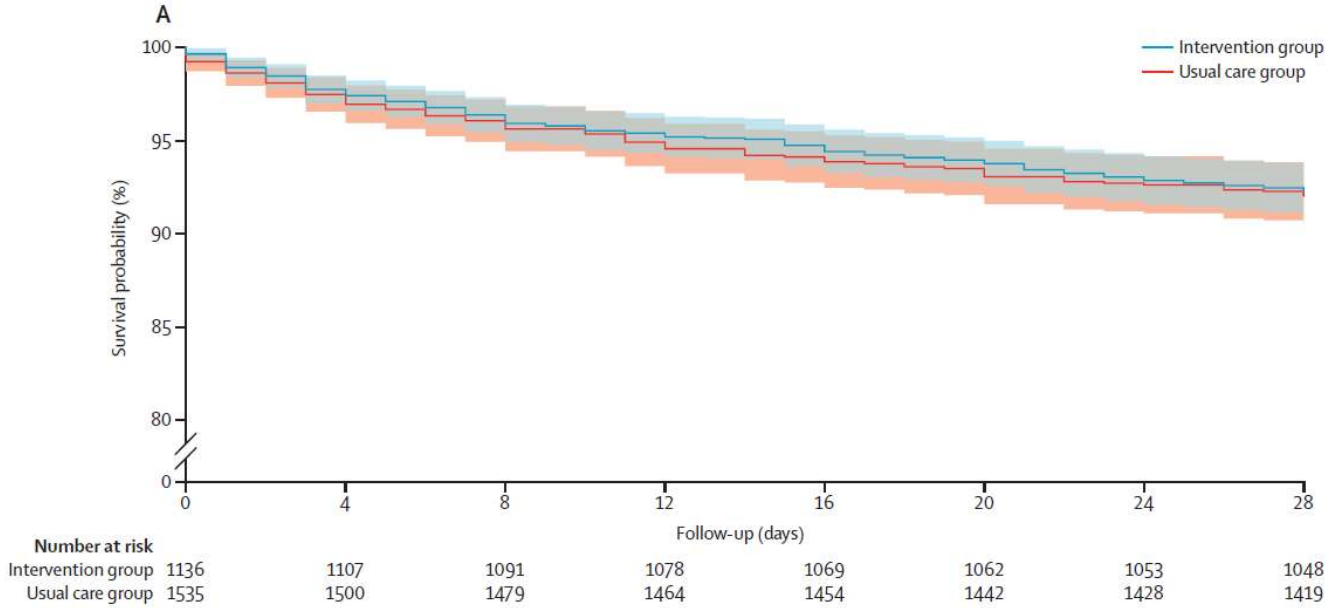
Opportunité pour l'ATB en préhospitalier ?

Rôle critique pour la reconnaissance précoce + ATB + orientation

PHANTASi trial

Prehospital antibiotics in the ambulance for sepsis: a multicentre, open label, randomised trial

*Nadia Alam, Erick Oskam, Patricia M Stassen, Pieternel van Exter, Peter M van de Ven, Harm R Haak, Frits Holleman, Arthur van Zanten, Hien van Leeuwen-Nguyen, Victor Bon, Bart A M Duineveld, Rishi S Nannan Panday, Mark H H Kramer, Prabath W B Nanayakkara, on behalf of the PHANTASi Trial Investigators and the ORCA (Onderzoeks Consortium Acute Geneeskunde) Research Consortium the Netherlands**



2,698 patients with possible sepsis to receive antibiotics in the ambulance versus the ED

Antibiotics were infused a median of 26 minutes (IQR, 19–34 min) before arriving in the ED in the intervention group versus 70 minutes (IQR, 36–128 min) after ED arrival for the usual care group.

Alam et al, 2018

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	Usual care group (n=1137)	Intervention group (n=1535)	Relative risk (95% CI)	Risk difference (%, 95% CI)	p value
28 day mortality	93 (8%)*	120 (8%)	0·95 (0·74 to 1·24)	−0·37 (−2·5 to 1·7)	0·78
90 day mortality	134 (12%)*	178 (12%)	0·98 (0·80 to 1·21)	−0·20 (−2·7 to 2·3)	0·87

Despite over 90 minutes difference between groups in time-to-antibiotics, there were no differences in 28-day mortality, ICU admission, or hospital length of stay

Alam et al, 2018

PHANTASi trial : pourquoi un résultat négatif ?

- Uniquement 4% de choc septique
- Dans le groupe contrôle > 80% ont reçu des ATB dans les moins de 3 heures

➔plus d'impact si focus uniquement sur les patients en choc septique ?

➔Quid d'administrer de la ceftriaxone à tous ?

Alam et al, 2018

PhRASe trial

- To assess the feasibility of:
  (1) paramedics recognising and screening patients for severe sepsis, collecting blood cultures and administering intravenous antibiotics
  (2) trial methods in order to decide whether a fully-powered trial should be undertaken to determine safety and effectiveness of this intervention

Jones et al, 2021

PhRASe trial

Outcome	Intervention (n = 62)	Control (n = 52)	Total (N = 114)	Difference (95% CI, Significance level)
Routine data (SAIL)				
90 day Mortality n(%)	21 (33.9)	11 (21.2)	32 (28.1)	Odds ratio 1.9 (0.82, 4.5) $p = 0.13$
ICU admissions (yes) (for primary emergency call), n (%)	5 (8.1)	1 (1.9)	6 (5.3)	Odds ratio: 4.5 (0.51, 39.6) $p = 0.14$
Number of ED attendances up to 90 days from emergency call (mean, SD of ED attendance per patient)	79 (1.3, 0.5)	76 (1.5, 0.7)	155 (1.4,0.6)	Mean Diff −0.2 (−0.41, 0.03), $p = 0.1$
Number of hospital admissions up to 90 days from emergency call (mean, SD admission per patient)	87 (3.5, 3.3)	56 (1.8,1.0)	143 (2.83, 2.7)	Mean Diff 1.8 (1.0, 2.5). $p < 0.05$
Bed days used up to 90 days from emergency call (mean (95%CI), median, sd)	14.2 (8.8,19.5); 5, 25.2	14.4 (7.3, 21.5); 4, 26.5	14.3 (10.0,18.5); 4, 25.6	−0.3 (−8.9, 8.5), $p = 0.9$
Data collected by PRSO				
Time interval (minutes) from emergency call to administration of antibiotic m, sd, nmiss(%)	131, 147, 15 (24.2)	NA	NA	NA
Job cycle time (minutes) from time of call to arrival at hospital m, sd, nmiss(%)	155, 132, 0	136, 87.5, 0	146, 114, 0	18.7 (−23,9, 61.3) $p = 0.2$
On scene time (minutes) m, sd	77.2, 131	65.5, 86.9	71.9, 113	11.7 (−30.5,53.9) $p = 0.3$
Blood Culture received	48	NA	NA	NA
Contamination of blood cultures		NA	NA	NA
Yes	1 (2.1)			
No	42 (87.5)			
Missing	0			
Not possible to identify	5 (10.4)			
Patient reported outcome measures				
Quality of care monitor score	n = 6 39.7, 5.6	n = 9 39.7, 8.3	n = 15 39.7, 6.6	Mean diff: 0, (−7.8, 7.8), $p = 1.0$
SF-12 score (at 90 days)	n = 11	n = 12	n = 23	
Physical component score	31.6 (11.2)	35.3 (12.6)	33.5 (11.8)	3.6, (−6.7,13.9), $p = 0.5$
Mental component score Mean (SD)	41.8 (14.5)	46.5 (15.7)	44.3 (14.9)	4.7, (−8.5,17.8) $p = 0.5$

Jones et al, 2021

PhRASe trial

- This feasibility study met its pre-determined progression criteria

- An application will therefore be prepared and submitted for funding for a fully-powered multi-centre randomised trial

Jones et al, 2021

Original Research Article

Prehospital administration of antibiotics in addition to usual care versus usual care alone for patients with suspected sepsis – a systematic review

Maddison Jayne Poynter, Ashley Farrugia, Elisabeth Kelly and Paul M Simpson

Paramedicine
1–14
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Author	Year	Country	Study design	Clinician type	Sample size (Int/UC)
Alam et al.	2018	NL	RCT	'EMS personnel' (nurses)	2698 (1535/1137)
Jouffroy et al	2021	FRA	Retrospective comparative analytical chart review	Physician and nurse	308 (98/210)
Martel et al	2021	US	Quasi-experimental (prospective cohort with historical control)	Paramedics	345 (47/298)
Cunningham et al	2021	US	Quasi-experimental (prospective cohort with historical control via chart review)	Paramedics	63 (29/34)
Jones et al	2021	UK	RCT (feasibility study)	Paramedics	114 (62/52)

		Mortality (intervention vs. usual care) (%)		
Author	Study type	28 days	30 days	90 days
Alam et al. 2018	RCT	No evidence of difference (AB 8% vs. 8%).	N/A	No difference (AB 12% vs. 12%; $p = 0.87$)
Jones et al. 2021	RCT feasibility study	N/A	N/A	No difference (AB 21% vs. 11%; p = 0.13)
Jouffroy et al. 2021	Retrospective cohort study	N/A	Significant difference favouring prehospital AB (24% vs. 31%). HR 0.56 (95% CI [0.35–0.90], $p = 0.01$)	N/A
Martel et al. 2021	Cohort (prospective sequential cohort study)	Significant difference favouring prehospital AB (AB 8.5% vs. 25%; $p = 0.01$)	N/A	N/A
Cunningham et al. 2021	Cohort study (prospective intervention with historical chart control)	N/A	No difference (AB 28% vs. 27%; $p = 0.18$)	N/A

ATB + remplissage

There is insufficient evidence to enable the recommendation of routine administration of antibiotics to patients with sepsis presenting to ambulance service clinicians in the prehospital setting. Investigation of administration to more severe sepsis presentations in settings where prolonged prehospital intervals are inherent is warranted.

Ultimately, we need **randomized trials** specifically focused on patients with **septic shock** to understand where in practice the equilibrium lies between the **potential benefits versus unintended harms** of prehospital antibiotics (and fluids!) for patients with possible septic shock.

Petition to retire the surviving sepsis campaign guidelines

May 2, 2018 by **Josh Farkas** — 26 Comments

European Society of Emergency Medicine position paper on the one-hour sepsis bundle of the Surviving Sepsis Campaign: expression of concern

Yonathan Freund [1, 2] , Abdo Khoury [3] , Martin Möckel [4] , Mehmet Karamercan , Christoph Dodt [5] , Robert Leach , Ben Bloom [6] , Luis Garcia-Castrillo Détails

The Infectious Disease Society of America (IDSA) refused to endorse the SSC because of a suboptimal rating system and industry sponsorship (1).

Too fast : Risque d'exposer les patients à des antibiothérapies et des remplissages inutiles, voire délétères

American College of Emergency Physicians®

INFECTIOUS DISEASE/ACEP POLICY STATEMENT

Early Care of Adults With Suspected Sepsis in the Emergency Department and Out-of-Hospital Environment: A Consensus-Based Task Force Report

Check for updates

This report has been organized by the American College of Emergency Physicians and has been endorsed by the American Academy of Emergency Medicine, the American College of Osteopathic Emergency Physicians, the American Osteopathic Board of Emergency Medicine, the Association of Academic Chairs of Emergency Medicine, the Council of Emergency Medicine Residency Directors, the Emergency Medicine Residents' Association, the Emergency Nurses Association, the Infectious Diseases Society of America, the National Association of EMS Physicians, the Society for Academic Emergency Medicine, the Society of Critical Care Medicine, and the Society of Hospital Medicine

	Surviving Sepsis Campaign 2016	ACEP task force
Fluid Resuscitation	At least 30 mL/kg of IV crystalloid fluid should be given within the first 3 hours.	We do not support a prespecified volume or body mass-adjusted volume of fluid for all patients, though we recognize that many patients benefit from 30 mL/kg of crystalloid.
Lactate	We suggest guiding resuscitation to normalize lactate in patients with elevated lactate levels as a marker of tissue hypoperfusion.	We support initially measuring blood lactate levels in the ED (venous or arterial) and repeating lactate measurement after initial resuscitation only if elevated above 4 mmol/L or if there is suspicion of clinical deterioration.
Antibiotic timing	We recommend that administration of IV antimicrobials be initiated as soon as possible after recognition and within 1 h for both sepsis and septic shock.	Shorter time to antibiotics is preferred, but the precise time frame to optimally support outcomes remains to be defined.
Antibiotic selection	We suggest empiric combination therapy (using at least two antibiotics of different antimicrobial classes) aimed at the most likely bacterial pathogen(s) for the initial management of septic shock.	We recommend initiation of broad-spectrum antibiotics with activity against gram-negative and gram-positive bacteria according to local susceptibility patterns.
Balanced crystalloids & albumin	- We suggest using either balanced crystalloids or saline for fluid resuscitation of patients with sepsis or septic shock. - We suggest using albumin in addition to crystalloids for initial resuscitation and subsequent intravascular volume replacement in patients with sepsis and septic shock when patients require substantial amounts of crystalloids.	We support using balanced crystalloid solutions (Ringer's solution or Plasmalyte) as the primary resuscitation fluid in patients with sepsis, especially if volumes of [illegible] infusion of saline solution can cause hyperchloremic metabolic acidosis and may impair renal performance in commonly perscribed resuscitative doses.
Arterial catheter	We suggest that all patients requiring vasopressors have an arterial catheter placed as soon as practical if resources are available.	Invasive hemodynamic devices, including central venous and arterial catheters, may aid but are not routinely needed in early sepsis care.

	Surviving Sepsis Campaign 2016	ACEP task force
Fluid Resuscitation	At least 30 mL/kg of IV crystalloid fluid should be given within the first 3 hours.	We do not support a prespecified volume or body mass-adjusted volume of fluid for all patients, though we recognize that many patients benefit from 30 mL/kg of crystalloid.
Lactate	We suggest guiding resuscitation to normalize lactate in patients with elevated lactate levels as a marker of tissue hypoperfusion.	We support initially measuring blood lactate levels in the ED (venous or arterial) and repeating lactate measurement after initial resuscitation only if elevated above 4 mmol/L or if there is suspicion of clinical deterioration.
Antibiotic timing	We recommend that administration of IV antimicrobials be initiated as soon as possible after recognition and within 1 h for both sepsis and septic shock.	Shorter time to antibiotics is preferred, but the precise time frame to optimally support outcomes remains to be defined.
Antibiotic selection	We suggest empiric combination therapy (using at least two antibiotics of different antimicrobial classes) aimed at the most likely bacterial pathogen(s) for the initial management of septic shock.	We recommend initiation of broad-spectrum antibiotics with activity against gram-negative and gram-positive bacteria according to local susceptibility patterns.
Balanced crystalloids & albumin	- We suggest using either balanced crystalloids or saline for fluid resuscitation of patients with sepsis or septic shock. - We suggest using albumin in addition to crystalloids for initial resuscitation and subsequent intravascular volume replacement in patients with sepsis and septic shock when patients require substantial amounts of crystalloids.	We support using balanced crystalloid solutions (Ringer's solution or Plasmalyte) as the primary resuscitation fluid in patients with sepsis, especially if volumes of more than 1 L are used. Infusion of saline solution can cause hyperchloremic metabolic acidosis and may impair renal performance in commonly perscribed resuscitative doses.
Arterial catheter	We suggest that all patients requiring vasopressors have an arterial catheter placed as soon as practical if resources are available.	Invasive hemodynamic devices, including central venous and arterial catheters, may aid but are not routinely needed in early sepsis care.

Antibiothérapie en urgence

- le purpura aigu fébrile
  - Une antibiothérapie immédiate est impérativement recommandée
  - c'est la seule indication formelle de l'antibiothérapie préhospitalier
  - Céfotaxime par voie IV, 1 gr chez l'adulte, ou ceftriaxone par voie IM ou IV, à la dose de 1 à 2 g chez l'adulte

MISE AU POINT

Antibiothérapie par voie générale dans les infections respiratoires basses de l'adulte
Pneumonie aiguë communautaire
Exacerbations de Bronchopneumopathie Chronique Obstructive

Tableau 7a : *Antibiothérapie probabiliste des pneumonies de réanimation, contexte grippal*

	Premier choix	**Second choix**
Cas général	C3G* (céfotaxime) ± macrolide IV ou FQAP (lévofloxacine) [1]	
Pneumonie gravissime **Pneumonie nécrosante,** **Forte présomption de SARM PVL+**	C3G* (céfotaxime) **+** glycopeptide et clindamycine ou rifampicine ou C3G* (céfotaxime) **+** linézolide	Désescalade selon documentation, lorsque disponible (cf Tableau 7b)

C3G (céphalosporines de 3ème génération) : la ceftriaxone n'est pas recommandée en raison d'une activité intrinsèque insuffisante sur *Staphylococcus*

PNA

- Céfotaxime (de préférence) ou ceftriaxone + amikacine
  - Si allergie : aztréonam + amikacine
- Sauf si ATCD d'IU/colonisation urinaire à EBLSE < 3 mois, ou amoxi-clav/C2G-C3G/FQ < 3 mois, ou voyage en zone d'endémie < 3 mois :
  - carbapénème (imipénème ou méropénème) + amikacine

Drainage en urgence en cas d'obstacle

HAS
HAUTE AUTORITÉ DE SANTÉ

Dermo-hypodermite nécrosante

Précocité de l'intervention chirurgicale
= Excision totale des tissus nécrosés

- Membre et cervico faciale:
  - Amoxicilline/acide clavulanique + clindamycine
- Abdomino périnéale:
  - pipéracilline + tazobactam + amikacine
  - imipenem + amikacine
- Toxicomane:
  - Amoxicilline/acide clavulanique + clindamycine + anti-SARM (vancomycine)

SPILF SFD, 2010

Infections intra-abdominales

R3 – Il faut opérer le plus rapidement possible un patient suspect de péritonite par perforation d'organe, tout particulièrement en cas de choc septique.

(Grade 1+) Accord FORT

- pipéracilline + tazobactam + aminoside

Montravers et al., 2015

Infections Neuro-méningées

Ceftriaxone 100 mg/kg/j IV ou céfotaxime 300 mg/kg/j IV

	Antibiotics	Dosage[a]
1. Positive direct examination/PCR		
Pneumococcal suspicion (Gram+ cocci)	Cefotaxime or	300 mg/kg/day IV, either as 4 infusions or as a continuous administration with a loading dose of 50 mg/kg over 1 hour[b]
	ceftriaxone	100 mg/kg/day IV, as 1 or 2 infusions
Meningococcal suspicion (Gram− cocci)	Cefotaxime or	200 mg/kg/day IV, either as 4 infusions or as a continuous administration with a loading dose of 50 mg/kg over 1 hour[b]
	ceftriaxone	75 mg/kg/day IV, as 1 or 2 infusions[c]
Listeriosis suspicion (Gram+ bacillus)	Amoxicillin +	200 mg/kg/day IV, either as 4 infusions or as a continuous administration
	gentamicin	5 mg/kg/day IV in adults, as a single daily infusion 5–8 mg/kg in children
H. influenzae suspicion (Gram− bacillus)	Cefotaxime or	200 mg/kg/day IV, either as 4 infusions or as a continuous administration with a loading dose of 50 mg/kg over 1 hour[b]
	ceftriaxone	75 mg/kg/day IV, as 1 or 2 infusions[c]
E. coli suspicion[d] (Gram− bacillus)	Cefotaxime or	200 mg/kg/day IV, either as 4 infusions or as a continuous administration with a loading dose of 50 mg/kg over 1 hour[b]
	ceftriaxone	75 mg/kg/day IV, as 1 or 2 infusions[c]
2. Negative direct examination/PCR		
With no evidence for listeriosis	Cefotaxime or	300 mg/kg/day IV, either as 4 infusions or as a continuous administration with a loading dose of 50 mg/kg over 1 hour[b]
	ceftriaxone	100 mg/kg/day IV, as 1 or 2 infusions[c]
With evidence for listeriosis[e]	Cefotaxime or	300 mg/kg/day IV, either as 4 infusions or as a continuous administration with a loading dose of 50 mg/kg over 1 hour[b]
	ceftriaxone	100 mg/kg/day IV, as 1 or 2 infusions[c]
	+ amoxicillin	200 mg/kg/day IV, either as 4 infusions or as a continuous administration
	+ gentamicin	5 mg/kg/day IV in adults, as a single daily infusion 5–8 mg/kg in children

SPILF 2017

Chez le neutropénique

- pipéracilline + tazobactam + aminoside (amikacine 30 mg/kg) + Vancomycine

Ablation de matériel (picc line, cathéter central, chambre implantable)

retrait rapide des dispositifs intra-vasculaires après qu'un autre accès vasculaire a été mis en place

HAS
HAUTE AUTORITÉ DE SANTÉ

Les carbapénèmes ne sont pas recommandés comme traitement probabiliste d'une aplasie fébrile en dehors du patient en choc septique avec antécédent de colonisation ou d'infection à EBLSE dans les 3 mois (AE).

Vite parfois … approprié toujours !

Antibiothérapie en préhospitalier: manque de preuves

Les règles d'or

Effets collatéraux d'une « pression du temps » possiblement aussi délétères

- ↘ pertinence diagnostique
- ↗ antibiothérapies inappropriées

Intérêt d'optimisation :

- Reconnaissance et screening
- Délai 1er contact médical et délai prescription/administration

Antibiothérapie : quand la débuter ?

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