INTÉRÊTS DES TRAITEMENTS COURTS

AURÉLIEN DINH

SERVICE DE MALADIES INFECTIEUSES ET TROPICALES

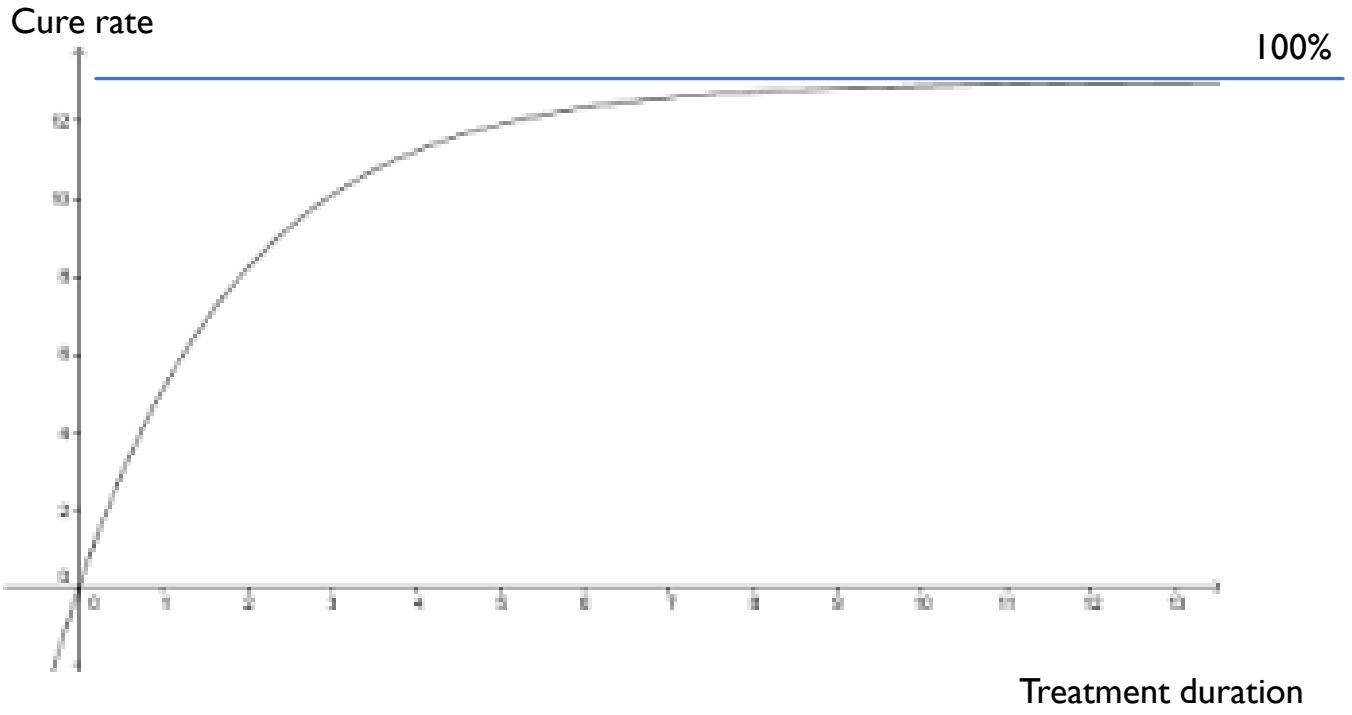
CHU RAYMOND-POINCARÉ, AP-HP

UVSQ université PARIS-SACLAY

AP-HP. Université Paris-Saclay

INSTITUT PASTEUR

POURQUOI TRAITE-T-ON LONGTEMPS ?



AVANTAGES À UN TRAITEMENT COURT

Diminution

- Résistances bactériennes
- Effets indésirables
- Coûts
- Sepsis ultérieur (!)

- **Amélioration**

- Compliance
- Qualité de vie
- Satisfaction du patient

Meilleure efficacité ?

D'après Li JZ. Am Med J 2007

JAMA | Original Investigation

Effect of 5-Day Nitrofurantoin vs Single-Dose Fosfomycin on Clinical Resolution of Uncomplicated Lower Urinary Tract Infection in Women

A Randomized Clinical Trial

Angela Huttner, MD; Anna Kowalczyk, MS; Adi Turjeman, MSc; Tanya Babich, MSc; Caroline Brossier, RN; Noa Eliakim-Raz, MD; Katarzyna Kosiek, MD, PhD; Begoña Martinez de Tejada, MD, PhD; Xavier Roux, MD; Shachaf Shiber, MD; Ursula Theuretzbacher, PhD; Elodie von Dach, PhD; Dafna Yahav, MD; Leonard Leibovici, MD; Maciek Godycki-Ćwirko, MD, PhD; Johan W. Mouton, MD, PhD; Stephan Harbarth, MD

- Essai multicentrique réalisé en ouvert
- Evaluation en aveugle
- 513 femmes
- Cystite (signes cliniques et BU+)
- Non colonisées connues
- Furadantine 5j vs fosfomycine 1j

JAMA 2018

Clinical and Bacteriologic Outcome	No./Total No. (%) Nitrofurantoin (n = 255)	Fosfomycin (n = 258)	Difference, % (95% CI)	*P* Value[a]
Primary Outcome				
Clinical response at 28 d[b]				
Clinical resolution	171/244 (70)	139/241 (58)	12 (4-21)	.004
Clinical failure	66/244 (27)	94/241 (39)		
Indeterminate	7/244 (3)	8/241 (3)		
Missing[c]	11 (4)	17 (7)		
Secondary Outcomes				
Clinical response at 14 d				
Clinical resolution	184/247 (75)	162/247 (66)	9 (1-17)	.03
Clinical failure	56/247 (23)	75/247 (30)		
Indeterminate	7/247 (3)	10/247 (4)		
Missing[c]	8 (3)	11 (4)		
Microbiologic response at 28 d[b]				
Culture obtained/baseline culture positive	175/194 (90)	163/183 (89)		
Bacteriologic success through 28 d	129/175 (74)	103/163 (63)	11 (1-20)	.04
Bacteriologic success failure by 28 d	46/175 (26)	60/163 (37)		

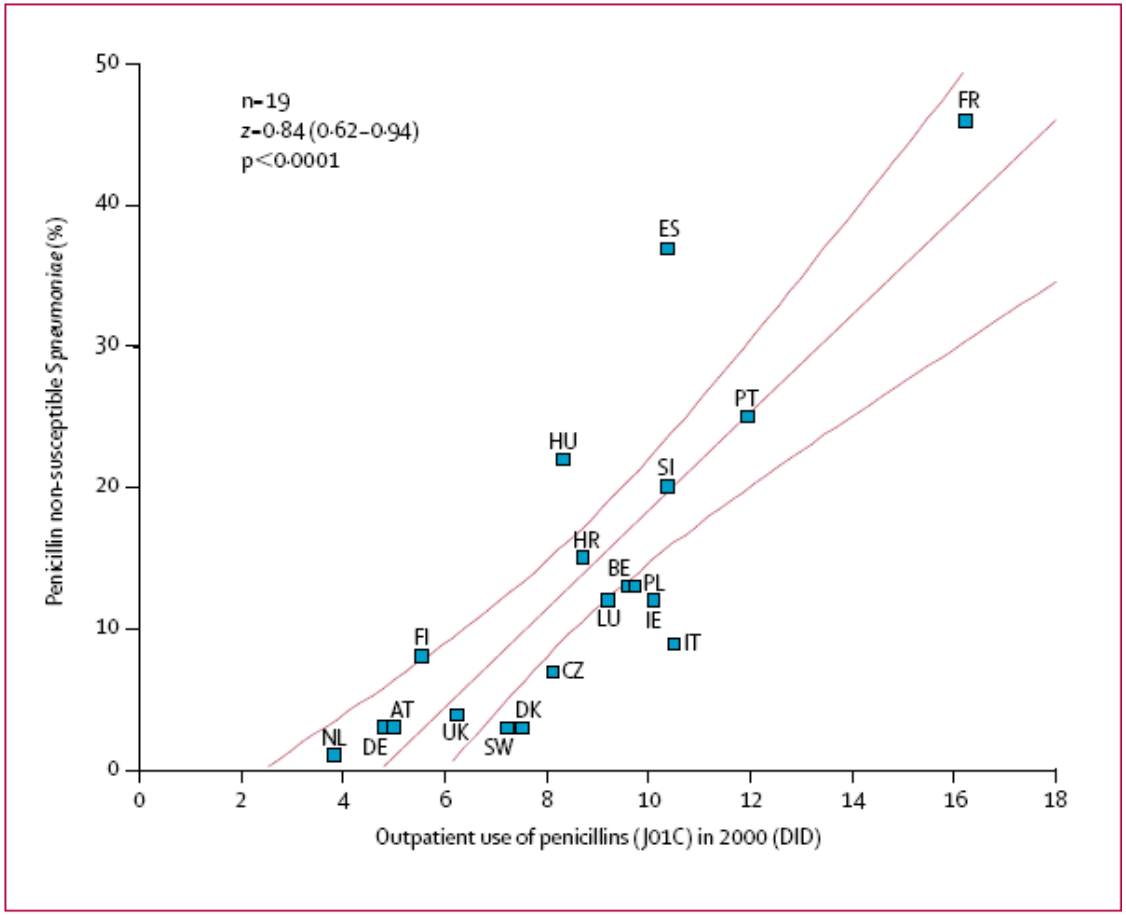


Figure 6: **Correlation between penicillin use and prevalence of penicillin non-susceptible *S pneumoniae***
AT, Austria; BE, Belgium; HR, Croatia; CZ, Czech Republic; DK, Denmark; FI, Finland; FR, France; DE, Germany; HU, Hungary; IE, Ireland; IT, Italy; LU, Luxembourg; NL, The Netherlands; PL, Poland; PT, Portugal; SI, Slovenia; ES, Spain; UK, England only.

H. Goosens Lancet 2005

THE EFFECT OF CHANGES IN THE CONSUMPTION OF MACROLIDE ANTIBIOTICS ON ERYTHROMYCIN RESISTANCE IN GROUP A STREPTOCOCCI IN FINLAND

HELENA SEPPÄLÄ, M.D., TIMO KLAUKKA, M.D., JAANA VUOPIO-VARKILA, M.D., ANNA MUOTIALA, PH.D., HANS HELENIUS, M.SC., KATRINA LAGER, M.SC., PENTTI HUOVINEN, M.D., AND THE FINNISH STUDY GROUP FOR ANTIMICROBIAL RESISTANCE*

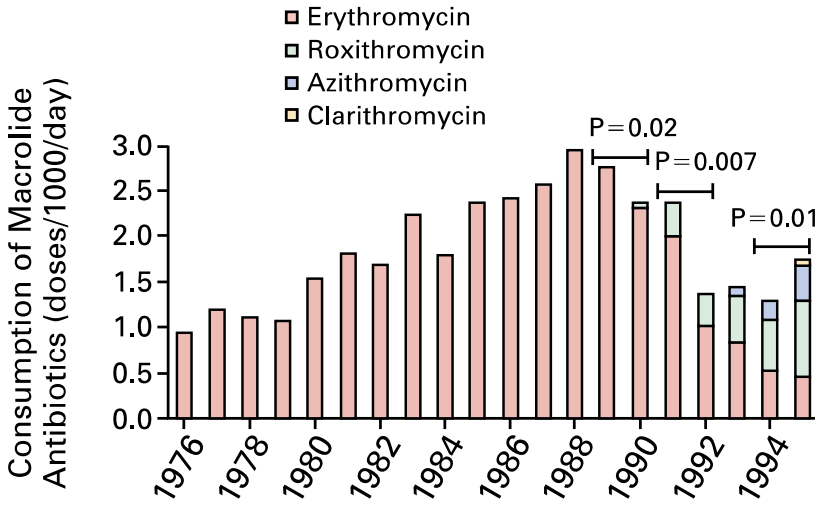


Figure 1. Total Consumption of Macrolide Antibiotics by Outpatients in Finland from 1976 through 1995.

Consumption is expressed in terms of defined daily doses per 1000 inhabitants per day.

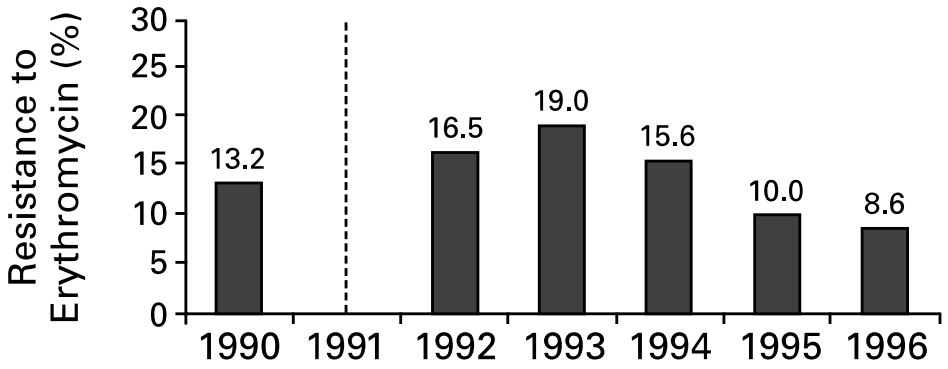
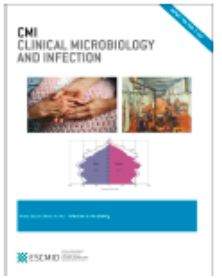


Figure 2. Frequency of Resistance to Erythromycin among Group A Streptococcal Isolates from Throat-Swab and Pus Samples in Finland in 1990 and in 1992 through 1996.

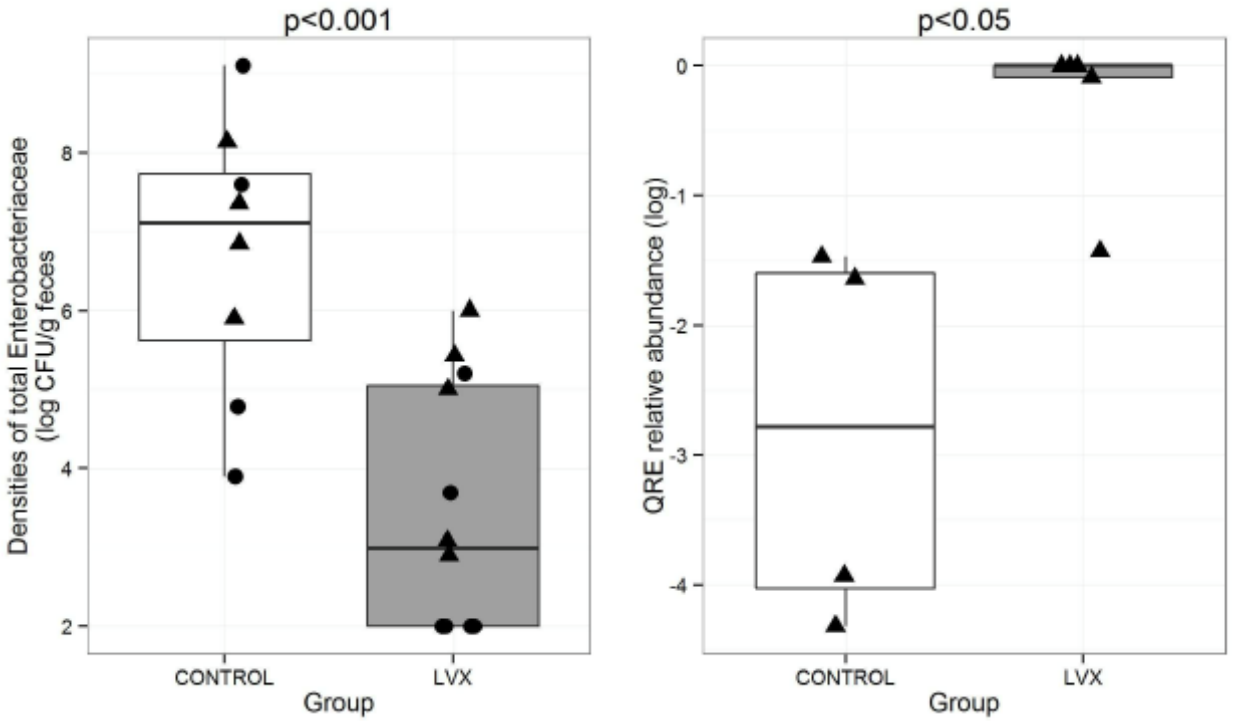
Seppälä *et al.* N Engl J Med 1997

Impact of a short exposure to levofloxacin on faecal densities and relative abundance of total and quinolone-resistant *Enterobacteriaceae*

Julien Bernard, Laurence Armand-Lefèvre, Elsa Luce, Assiya El Mniai, Françoise Chau, Enrique Casalino, Antoine Andremont, Etienne Ruppé



Emergence précoce (< J3 lévofloxacine) d'entérobactéries FQ-R



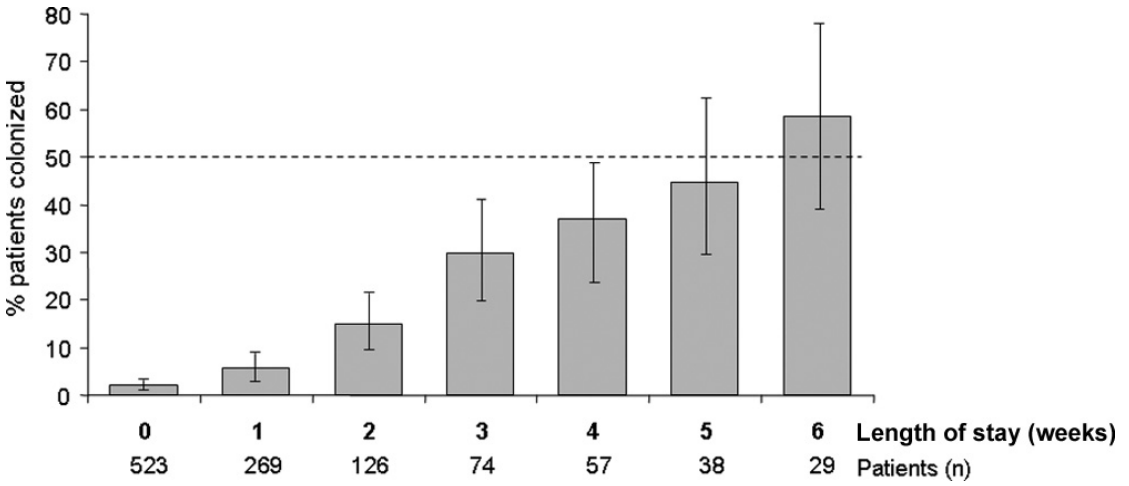
Bernard J et al. Clin Microbiol Infect 2016

AAC Journals.ASM.org

Emergence of Imipenem-Resistant Gram-Negative Bacilli in Intestinal Flora of Intensive Care Patients

Laurence Armand-Lefèvre,[a,b] Cécile Angebault,[a,b] François Barbier,[b,c] Emilie Hamelet,[a] Gilles Defrance,[a] Etienne Ruppé,[a,b] Régis Bronchard,[d] Raphaël Lepeule,[b] Jean-Christophe Lucet,[e] Assiya El Mniai,[a] Michel Wolff,[c] Philippe Montravers,[d] Patrick Plésiat,[f] Antoine Andremont[a,b]

- Principal FDR de colonisation à BGN carba R : exposition préalable à Imipenem
- Expo < J3 : OR = 5.9 ([95% CI], 1.5-25.7)
- Expo > 3J : OR= 7.8 (95% CI, 2.4 to 29.8)



AAC 2013

FDR DE PORTAGE DE PNEUMOCOQUE PÉNI R

	OR	IC 95%	P-value
Prise de béta-lactamines dans les 30 jours préalables	3,0	1,1-8,3	0,03
Sous-dosage	5,9	2,1-16,7	0,002
Durée de traitement (>5 jours)	3,5	1,3-9,8	0,02

Guillemot D, JAMA 1998

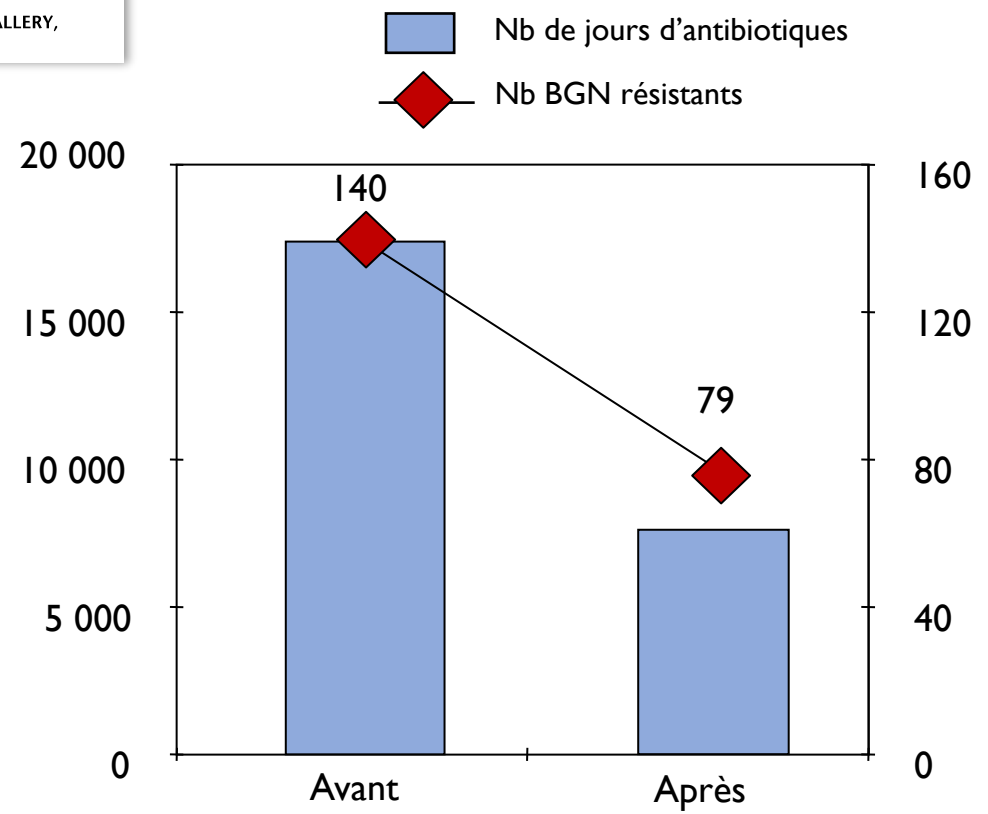
Rotation and Restricted Use of Antibiotics in a Medical Intensive Care Unit

Impact on the Incidence of Ventilator-associated Pneumonia Caused by Antibiotic-resistant Gram-negative Bacteria

DIDIER GRUSON, GILLES HILBERT, FREDERIC VARGAS, RUDDY VALENTINO, CECILE BEBEAR, ANNIE ALLERY, CHRISTIANE BEBEAR, GEORGES GBIKPI-BENISSAN, and JEAN-PIERRE CARDINAUD

- Etude avant/après en réanimation (3455 patients) sur 4 ans
- Intervention
  1. Restriction ceftazidime et ciprofloxacine
  2. Rotation d'antibiotiques
  3. Supervision des prescriptions par deux investigateurs

"with an appropriate control of dosing and duration of treatment."



Gruson D *et al*. Am J Respir Crit Care Med 2000

Comparison of 8 vs 15 Days of Antibiotic Therapy for Ventilator-Associated Pneumonia in Adults

A Randomized Trial

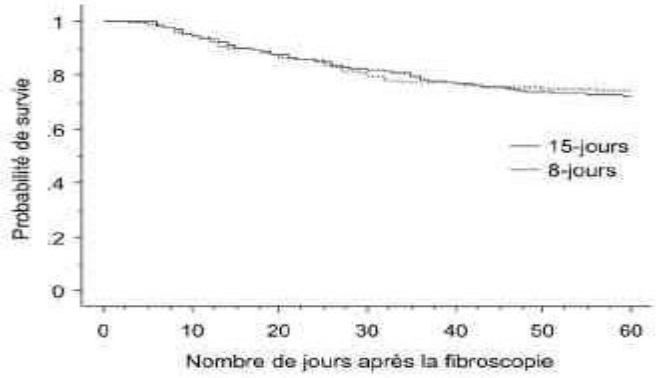


Fig. 2. Probabilité de survie (courbes de Kaplan-Meier) en fonction de la durée de traitement antibiotique (8 vs 15 jours) d'une pneumonie acquise sous ventilation mécanique [16].

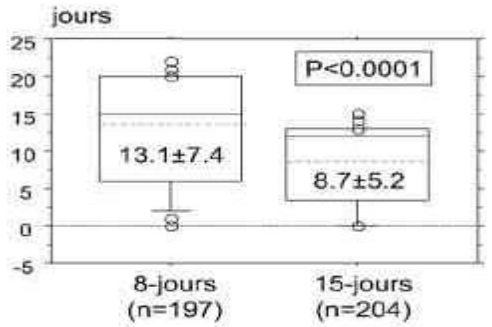


Fig. 3. Nombre de jours vivant sans antibiotique en fonction de la durée de traitement antibiotique d'une pneumonie acquise sous ventilation mécanique (d'après [16]).

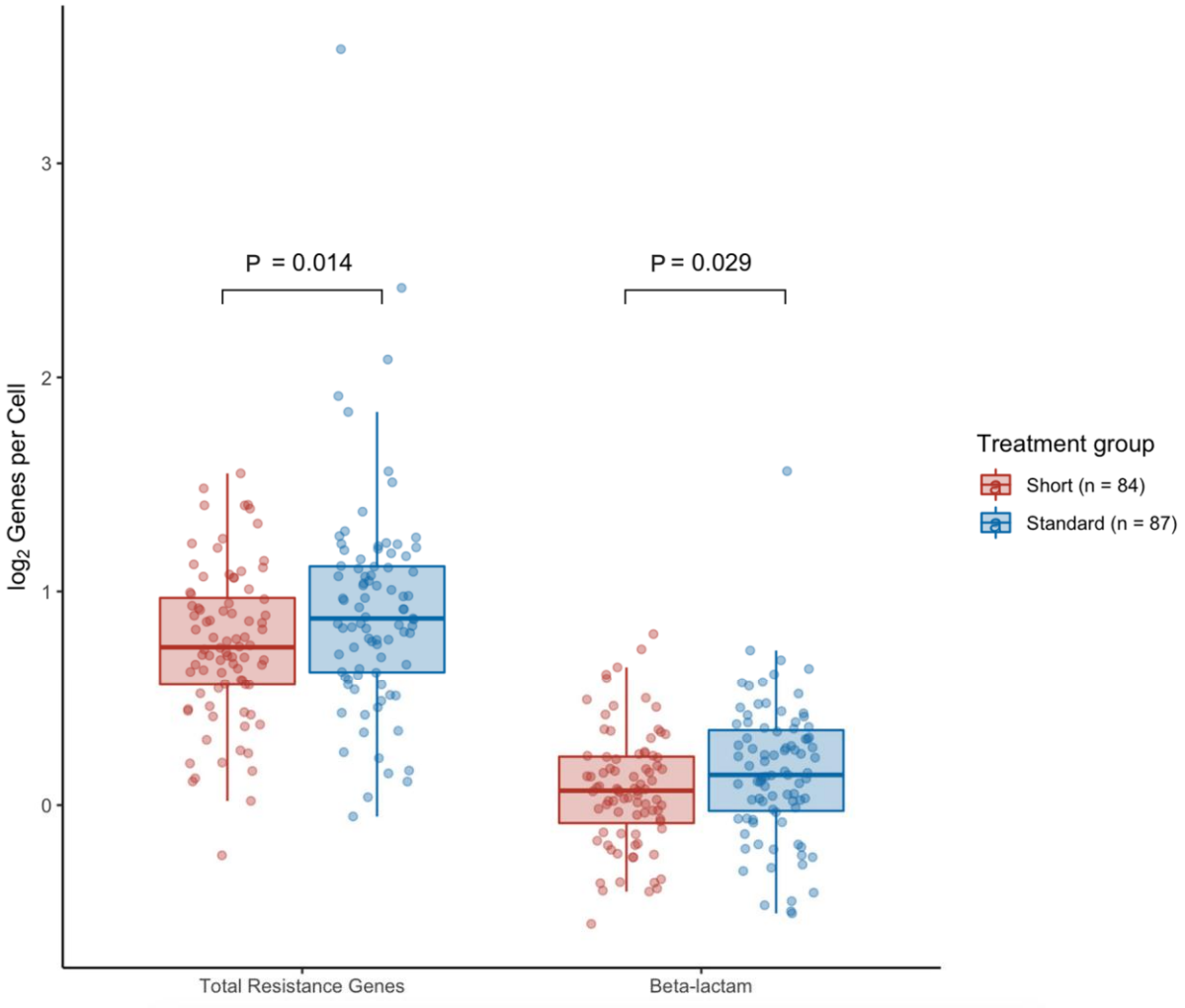
Notably, among patients who developed recurrent pulmonary infections, multiresistant pathogens emerged significantly less frequently in those who had received 8 days of antibiotics (42.1% vs 62.3% of recurrent infections; *P*=.04).

J. Chastre et al. JAMA 2003

JAMA Pediatrics | Original Investigation

Short- vs Standard-Course Outpatient Antibiotic Therapy for Community-Acquired Pneumonia in Children

The SCOUT-CAP Randomized Clinical Trial



JAMA 2021

EFFETS INDÉSIRABLES

Antibiotic treatment for 6 weeks versus 12 weeks in patients with pyogenic vertebral osteomyelitis: an open-label, non-inferiority, randomised, controlled trial

*Louis Bernard, Aurélien Dinh, Idir Ghout, David Simo, Valerie Zeller, Bertrand Issartel, Vincent Le Moing, Nadia Belmatoug, Philippe Lesprit, Jean-Pierre Bru, Audrey Therby, Damien Bouhour, Eric Dénes, Alexa Debard, Catherine Chirouze, Karine Fèvre, Michel Dupon, Philippe Aegerter, Denis Mulleman, on behalf of the Duration of Treatment for Spondylodiscitis (DTS) study group**

	6-week regimen (n=176)	12-week regimen (n=175)	Total (n=351)	p value
Back pain at 1 year	44/145 (30%)	41/138 (30%)	85/283 (30%)	1
Fever at 1 year (no=0, yes=1)	0	1 (1%)	1 (<1%)	0·48
C-reactive protein concentration at 1 year, mg/L	4·2 (1·9–7·2)	3·2 (1·8–6)	4 (1·8–6·3)	0·22
Adverse events	51 (29%)	50 (29%)	101 (29%)	1
Death	14 (8%)	12 (7%)	26 (7%)	0·85
Cardiorespiratory failure	7 (4%)	12 (7%)	19 (5%)	0·33
Digestive tract bleeding	4 (2%)	2 (1%)	6 (2%)	0·68
Clostridium difficile infection	2 (1%)	2 (1%)	4 (2%)	1
Antibiotic intolerance	12 (7%)	9 (5%)	21 (6%)	0·66
Other infection (not vertebral osteomyelitis)	5 (3%)	7 (4%)	12 (3%)	0·76
Device infection	1 (1%)	2 (1%)	3 (1%)	0·62
Neurological complications	7 (4%)	3 (2%)	10 (3%)	0·34
Endocarditis	3 (2%)	4 (2%)	7 (2%)	0·72

Lancet 2015

Ciprofloxacin for 7 days versus 14 days in women with acute pyelonephritis: a randomised, open-label and double-blind, placebo-controlled, non-inferiority trial

Torsten Sandberg, Gunilla Skoog, Anna Bornefalk Hermansson, Gunnar Kahlmeter, Nils Kuylenstierna, Anders Lannergård, Gisela Otto, Bo Settergren, Gunilla Stridh Ekman

EI	CPF 7j	CPF 14j	P
Arrêt lié à EI			
Myalgies	2	0	NS
Exanthème	0	1	NS
EI après la 1ère semaine	4 (5%)	6 (6%)	NS
Mycose	**0**	**5**	**0,036**

Lancet 2012

Original Investigation

Risk of Aortic Dissection and Aortic Aneurysm in Patients Taking Oral Fluoroquinolone

Chien-Chang Lee, MD, ScD; Meng-tse Gabriel Lee, PhD; Yueh-Sheng Chen, MD; Shih-Hao Lee, MA; Yih-Sharng Chen, MD, PhD; Shyr-Chyr Chen, MD, MBA; Shan-Chwen Chang, MD, PhD

- Etude cas témoins apparié
- 147 700 contrôles
- Data base Assurance maladie Taïwan
- 1 M de personnes suivi de 2000 à 2011
- Prescription de FQ dans l'année précédente
- Risque d'anévrysme et dissection aortique

Duration of Fluoroquinolone Use, d	Case/Person-years, No. (Incidence Rate, %)	Propensity Score–Adjusted Rate Ratio (95% CI)
<3 [Reference]	1432/147 495 (0.97)	1 [Reference]
3-14	33/1271 (2.60)	1.60 (1.10-2.52)[a]
>14	12/411 (2.92)	1.81 (0.91-3.17)

JAMA Intern Med 2015

JAMA Surgery | Original Investigation

Association of Duration and Type of Surgical Prophylaxis With Antimicrobial-Associated Adverse Events

Westyn Branch-Elliman, MD, MMSc; William O'Brien, MS; Judith Strymish, MD; Kamal Itani, MD; Christina Wyatt, MD; Kalpana Gupta, MD, MPH

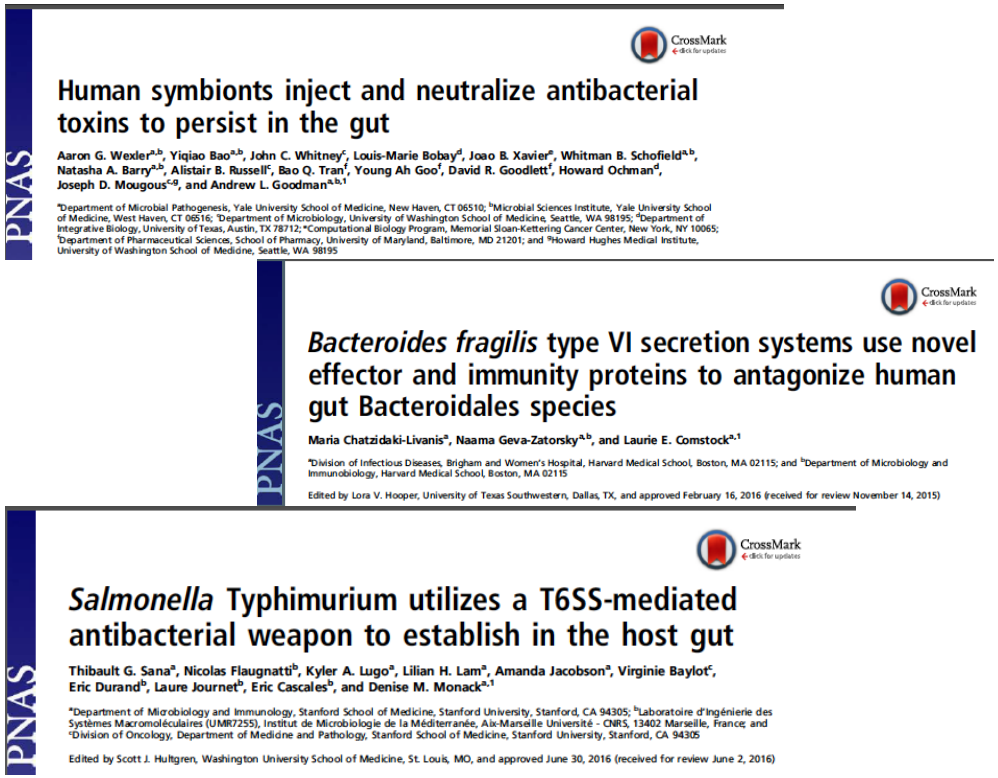
Durée ATB prophylaxie (h)	ISO	IRA	ICD
<24	1 (ref)	1 (ref)	1 (ref)
24-48	0.96 (0.71-1.29)	1.03 (0.95-1.12)	1.08 (0.89-1.31)
48-<72	0.73 (0.42-1.30)	1.22 (1.08-1.39)	2.43 (1.80-3.27)
⩾72	0.99 (0.49-2.00)	1.82 (1.54-2.16)	3.65 (2.40-5.55)

Chaque jour compte !

JAMA Surg. 2019

SEPSIS ULTÉRIEUR ?

MICROBIOTE BARRIÈRE ET RISQUE INFECTIEUX



PNAS

CrossMark

Human symbionts inject and neutralize antibacterial toxins to persist in the gut

Aaron G. Wexler[a,b], Yiqiao Bao[a,b], John C. Whitney[c], Louis-Marie Bobay[d], Joao B. Xavier[e], Whitman B. Schofield[a,b], Natasha A. Barry[a,b], Alistair B. Russell[c], Bao Q. Tran[f], Young Ah Goo[f], David R. Goodlett[f], Howard Ochman[d], Joseph D. Mougous[c,g], and Andrew L. Goodman[a,b,1]

[a]Department of Microbial Pathogenesis, Yale University School of Medicine, New Haven, CT 06510; [b]Microbial Sciences Institute, Yale University School of Medicine, West Haven, CT 06516; [c]Department of Microbiology, University of Washington School of Medicine, Seattle, WA 98195; [d]Department of Integrative Biology, University of Texas, Austin, TX 78712; [e]Computational Biology Program, Memorial Sloan-Kettering Cancer Center, New York, NY 10065; [f]Department of Pharmaceutical Sciences, School of Pharmacy, University of Maryland, Baltimore, MD 21201; and [g]Howard Hughes Medical Institute, University of Washington School of Medicine, Seattle, WA 98195

PNAS

CrossMark

***Bacteroides fragilis* type VI secretion systems use novel effector and immunity proteins to antagonize human gut Bacteroidales species**

Maria Chatzidaki-Livanis[a], Naama Geva-Zatorsky[a,b], and Laurie E. Comstock[a,1]

[a]Division of Infectious Diseases, Brigham and Women's Hospital, Harvard Medical School, Boston, MA 02115; and [b]Department of Microbiology and Immunobiology, Harvard Medical School, Boston, MA 02115

Edited by Lora V. Hooper, University of Texas Southwestern, Dallas, TX, and approved February 16, 2016 (received for review November 14, 2015)

PNAS

CrossMark

***Salmonella* Typhimurium utilizes a T6SS-mediated antibacterial weapon to establish in the host gut**

Thibault G. Sana[a], Nicolas Flaugnatti[b], Kyler A. Lugo[a], Lilian H. Lam[a], Amanda Jacobson[a], Virginie Baylot[c], Eric Durand[b], Laure Journet[b], Eric Cascales[b], and Denise M. Monack[a,1]

[a]Department of Microbiology and Immunology, Stanford School of Medicine, Stanford University, Stanford, CA 94305; [b]Laboratoire d'Ingénierie des Systèmes Macromoléculaires (UMR7255), Institut de Microbiologie de la Méditerranée, Aix-Marseille Université - CNRS, 13402 Marseille, France; and [c]Division of Oncology, Department of Medicine and Pathology, Stanford School of Medicine, Stanford University, Stanford, CA 94305

Edited by Scott J. Hultgren, Washington University School of Medicine, St. Louis, MO, and approved June 30, 2016 (received for review June 2, 2016)

- Effet barrière vis-à-vis des bactéries exogènes "résistance à la colonisation"
  - élimination totale de la souche exogène
  - maintien de la souche exogène en sous-dominance
- La flore digestive stimule l'immunité locale et générale

Clinical Infectious Diseases

MAJOR ARTICLE

Risk of Subsequent Sepsis Within 90 Days After a Hospital Stay by Type of Antibiotic Exposure

James Baggs, John A. Jernigan, Alison Laufer Halpin, Lauren Epstein, Kelly M. Hatfield, and L. Clifford McDonald

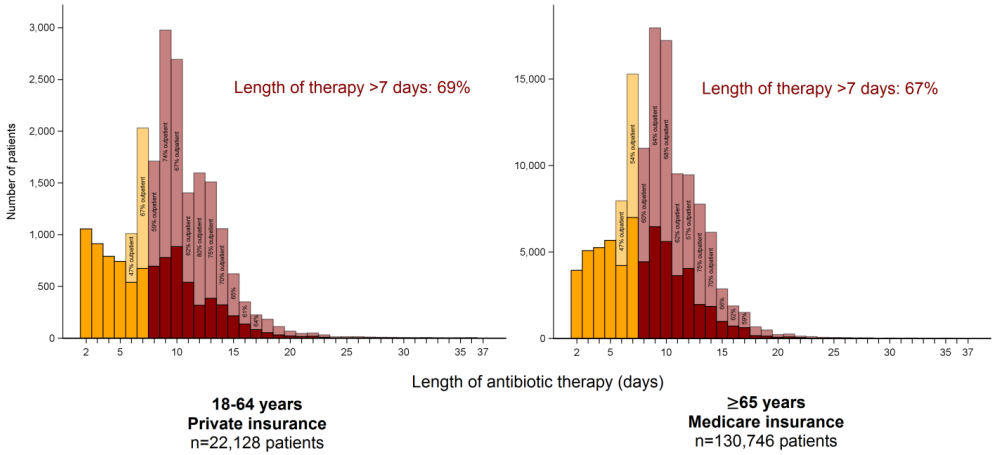
Antibacterial Exposure	OR (95% CI)	
	Primary Outcome: Severe Sepsis/Septic Shock[b]	Secondary Outcome: Sepsis[c]
High-risk antibacterial agents[d]	1.65 (1.59–1.70)	1.49 (1.47–1.52)
Low-risk antibacterial agents[e]	1.07 (1.02–1.13)	1.04 (1.02–1.06)
Control antibacterial agents[f]	1.22 (1.12–1.34)	1.20 (1.15–1.25)
No exposure to antibacterial agents	Reference	Reference
Antibiotic classes exposed to during stay, No.		
≥4	2.23 (2.12–2.36)	1.92 (1.86–1.97)
3	1.80 (1.72–1.89)	1.57 (1.53–1.61)
2	1.49 (1.43–1.56)	1.36 (1.34–1.39)
1	1.30 (1.25–1.35)	1.26 (1.24–1.28)
0	Reference	Reference
Duration of antibacterial therapy, d		
≥14	2.17 (2.06–2.29)	1.89 (1.84–1.94)
7–13	1.68 (1.61–1.75)	1.52 (1.49–1.55)
3–6	1.41 (1.36–1.47)	1.34 (1.32–1.37)
1–2	1.23 (1.18–1.29)	1.16 (1.13–1.18)
0	Reference	Reference

CID 2018

TOUJOURS PLUS COURT :
QU'EST CE QUI EST FAIT EN PRATIQUE ?

Duration of Antibiotic Use Among Adults With Uncomplicated Community-Acquired Pneumonia Requiring Hospitalization in the United States

Sarah H. Yi, Kelly M. Hatfield, James Baggs, Lauri A. Hicks, Arjun Srinivasan, Sujan Reddy, and John A. Jernigan



- Etude rétrospective
- Base de donnée informatique hospitalière (2012-2013)
- PAC simple
- 22 128 patients (2100 hôpitaux)
- Durée moyenne 9,5j
- 70% > 7j

Yi *et al.* CID 2017

Are infection specialists recommending short antibiotic treatment durations? An ESCMID international cross-sectional survey

Gabriel Macheda[1], Oliver J. Dyar[2], Amandine Luc[3], Bojana Beovic[4,5], Guillaume Béraud[6–8], Bernard Castan[9], Rémy Gauzit[10], Philippe Lesprit[11], Pierre Tattevin[12], Nathalie Thilly[3,13] and Céline Pulcini[1,13]* on behalf of ESGAP and SPILF

- Enquête internationale
- Interrogatoire (15 situations cliniques)
- 866 participants (experts : infectiologues, EMA, microbiologistes)
- En France : 46% ont recommandé une durée courte

JAC 2018

RECOMMANDATIONS

Recommandations de la SPILF pour des durées optimisées des traitements antibiotiques

Diaporama réalisé par le groupe recommandations de la SPILF, à la suite de la publication de la recommandation(1)

Synthèse réalisée le 10 Mars 2021 par la SPILF

HAUTE AUTORITÉ DE SANTÉ

RECOMMANDER LES BONNES PRATIQUES

SYNTHÈSE

Choix et durées d'antibiothérapie préconisées dans les infections bactériennes courantes

Validée par le Collège le 15 juillet 2021

La réduction de la durée de traitement antibiotique pour les pathologies bactériennes courantes représente une des stratégies pour lutter contre les résistances bactériennes.

Cette fiche de synthèse mentionne l'antibiothérapie de première intention et sa durée préconisée dans 19 infections bactériennes courantes de ville.

- Infections urinaires de la femme
- Infections ORL de l'enfant et de l'adulte
- Infections bactériennes cutanées
- Infection par *Helicobacter pylori* chez l'adulte
- Diverticulite aiguë sigmoïdienne non compliquée
- Urétrites et cervicites non compliquées

Pour des informations détaillées et complètes, des fiches distinctes par infection bactérienne sont disponibles sur www.has-sante.fr

https://www.has-sante.fr/jcms/p_3278764/fr/choix-et-durees-d-antibiotherapie-preconisees-dans-les-infections-bacteriennes-courantes

SYNTHÈSE DES DURÉES DE TRAITEMENT

Pathologies	Durées courtes	Durée longues	Résultats	N essais
PAC	3 ou 5 j	7,8 ou 10 j	Pas de différence	9
Exacerbation BPCO	≤5 j	≥ 7 j	Pas de différence	>20
Pneumonies nosocomiales	7 j	10-15 j	Pas de différence	2
PAVM	8 j	15 j	Pas de différence	2
PNA	5 ou 7 j	10 ou 14 j	Pas de différence	7
IIA	4 j	10 j	Pas de différence	2
Bactériémies à BGN	7 j	14 j	Pas de différence	1
Infection peau et tissus mous	5-6 j	10 j	Pas de différence	4
Spondylodiscite	42 j	84 j	Pas de différence	1
Arthrite septique	14 j	28 j	Pas de différence	1
Fièvre chez neutropénique	Apyrexie + 72h	Apyrexie + PNN> 500/mm3	Pas de différence	1
Sinusite bactérienne	5 j	10 j	Pas de différence	3

El Moussaoui R et al. BMJ 2006; Dinh A et al. 26th ECCMID (9-12 avril 2016), Amsterdam; Uranga A et al. JAMA Intern Med 2016; El Moussaoui R et al. Thorax 2008; Singh N et al. Am J Respir Crit Care Med 2000; Dunbar LM et al. Clin Infect Dis 2003; Chastre J et al. JAMA 2003; Peterson J et al. Urology 2008; Dinh A et al. Eur J Clin Microbiol Infect Dis 2017; Klausner HA et al. Curr Med Res Opin 2007; Eliakim-Raz N et al. J Antimicrob Chemother 2013; Drekonja DM et al. JAMA Intern Med 2013; Sawyer RG et al. N Engl J Med 2015; Yahav D. et al. Clin Infect Dis 2018; Hepburn MJ et al. Arch Intern Med 2004; Bernard L et al. Lancet 2015; Gjika E et al. Ann Rheum Dis 2019; Aguilar-Guisado M et al. Lancet Haematol 2017; Stern A et al. Cochrane Database Syst Rev 2019; Le Clech L et al. Infect Dis (Lond) 2018; Falagas ME et al. Br J Clin Pharmacol 2009.

DÉJÀ PLUS COURT ?

The Journal of the
American Medical Association
Published Under the Auspices of the Board of Trustees
VOL. 122, No. 18 CHICAGO, ILLINOIS AUGUST 28, 1943
COPYRIGHT, 1943, BY AMERICAN MEDICAL ASSOCIATION

PENICILLIN IN THE TREATMENT OF INFECTIONS

A REPORT OF 500 CASES

STATEMENT BY THE COMMITTEE ON CHEMOTHERAPEUTIC AND OTHER AGENTS, DIVISION OF MEDICAL SCIENCES, NATIONAL RESEARCH COUNCIL

CHESTER S. KEEFER, M.D., BOSTON, CHAIRMAN; FRANCIS G. BLAKE, M.D., NEW HAVEN, CONN.; E. KENNERLY MARSHALL JR., M.D., BALTIMORE; JOHN S. LOCKWOOD, M.D., PHILADELPHIA, AND W. BARRY WOOD JR., M.D., ST. LOUIS.

patients with pneumococcal pneumonia, stated, "It is plain from the reported cases that…many patients have recovered on less than 100,000 units given over a period of two to three days." Dawson and Hobby [23], in their 1944 report on treating

The Journal of the
American Medical Association
Published Under the Auspices of the Board of Trustees
VOL. 124, No. 10 CHICAGO, ILLINOIS MARCH 4, 1944
COPYRIGHT, 1944, BY AMERICAN MEDICAL ASSOCIATION

THE CLINICAL USE OF PENICILLIN

OBSERVATIONS IN ONE HUNDRED CASES

MARTIN HENRY DAWSON, M.D.
AND
GLADYS L. HOBBY, PH.D.
NEW YORK

"In general, the results were satisfactory with doses of 10,000 units every four hours for one and a half to two days."

Keefer CS *et al.* JAMA 1943; Dawson MH & Hobby GL JAMA 1944

Thorax (1970), 25, 241.

One-day treatment for lobar pneumonia

D. R. SUTTON, A. C. B. WICKS, and LINDSAY DAVIDSON

Department of Medicine, University College of Rhodesia

An investigation was undertaken to discover whether a single intramuscular dose of long-acting (or mixed long-acting and crystalline) penicillin or a single day's therapy with oral penicillin was satisfactory treatment for lobar pneumonia. These treatments were compared with standard hospital oral and injection therapies. All the experimental treatment regimes were found to be satisfactory. They provide justification for treating lobar pneumonia on an out-patient basis in order to save hospital admissions.

TABLE III

RESULTS OF TREATMENT

	Treatment Group							
	A	B	C	D	E	F	G	Total
No. of patients	20	28	20	23	19	19	21	150
Radiological and clinical resolution	19	27	18	20	18	18	19	139
Failures (see text)	1	1	2	3	1	1	2	11
Complications								
Effusions	0	0	0	1	1	0	1	3
Pleural thickening	1	1	0	0	0	0	0	2
Deaths	0	0	1	0	0	0	0	1
Days for temperature to return to normal and remain normal (mean ±S.D.)	3·1 ± 1·6	2·6 ± 0·9	3·4 ± 1·7	3·2 ± 1·3	2·6 ± 1·6	2·9 ± 1·7	2·6 ± 1·6	

apart from residual sputum production. Three [illegible] penicillin or a mixture of [illegible]

Merci à Patrick Petitpretz

OXFORD MEDICAL PUBLICATIONS

THE MANAGEMENT OF THE PNEUMONIAS

For
Physicians and Medical Students

BY

JESSE G. M. BULLOWA, B. A., M. D.

CLINICAL PROFESSOR OF MEDICINE, NEW YORK UNIVERSITY COLLEGE OF MEDICINE. VISITING PHYSICIAN AND DIRECTOR LITTAUER PNEUMONIA RESEARCH FUND, HARLEM HOSPITAL. VISITING PHYSICIAN, WILLARD PARKER HOSPITAL.

https://www.jameslindlibrary.org/bullowa-jgm-1937/

NEW YORK
OXFORD UNIVERSITY PRESS

Age. Age is a factor of great importance. Children, whose pneumonias have a low fatality rate, should not be included with adults. Where our series is sufficiently large, we have even elected to compare the treated and untreated cases by decades. Before the third decade the mortality for Pn. I and II is only 10 percent in the untreated cases; after that it is more than 20 per-

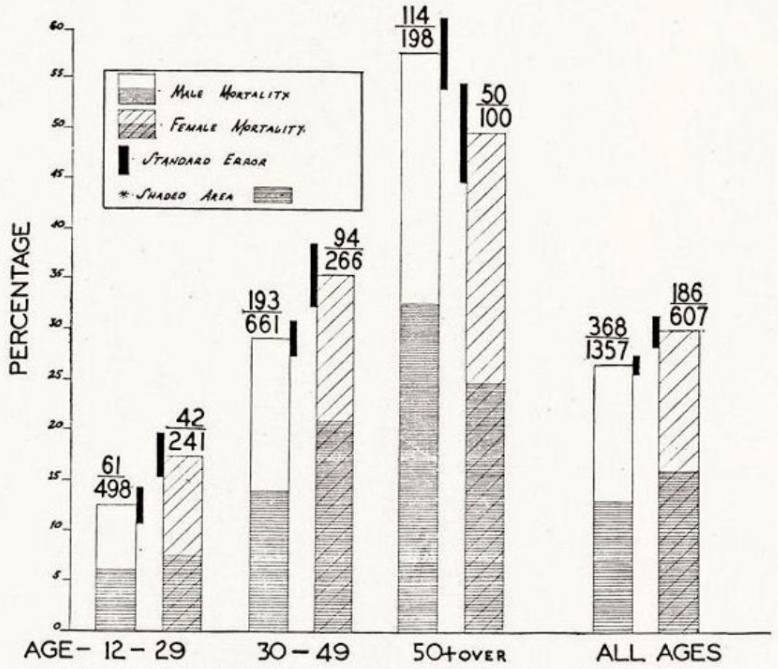


FIG. 93. Mortality in non-serum cases; 1357 males and 607 females. Age and sex distribution July 1, 1928–June 30, 1934.

* The Mortality for all Non-Serum cases is 28.3 %. The shaded area represents pneumococci having a mortality of more than 28.3 %, i.e., Pn. 2, 3, 14, 17, 19 and 24, Multiple infections, Staphylococcus, Hemolytic Streptococcus, B. Friedlander, Miscellaneous and Undetermined because no growth.

QUAND ON NE PEUT PAS RACCOURCIR

INFECTIONS OSTEO ARTICULAIRES

Antibiotic treatment for 6 weeks versus 12 weeks in patients with pyogenic vertebral osteomyelitis: an open-label, non-inferiority, randomised, controlled trial

*Louis Bernard, Aurélien Dinh, Idir Ghout, David Simo, Valerie Zeller, Bertrand Issartel, Vincent Le Moing, Nadia Belmatoug, Philippe Lesprit, Jean-Pierre Bru, Audrey Therby, Damien Bouhour, Eric Dénes, Alexa Debard, Catherine Chirouze, Karine Fèvre, Michel Dupon, Philippe Aegerter, Denis Mulleman, on behalf of the Duration of Treatment for Spondylodiscitis (DTS) study group**

	6-week regimen	12-week regimen	Difference in proportion of patients*	95% CI
Intention-to-treat analysis, n	176	175		
Cured	160 (90·9%)	159 (90·9%)	+0·1	−6·2 to 6·3
Cured and alive†	156 (88·6%)	150 (85·7%)	+2·9	−4·2 to 10·1
Cured without further antibiotic treatment‡	142 (80·7%)	141 (80·6%)	+0·1	−8·3 to 8·5
Per-protocol analysis, n	146	137		
Cured	137 (93·8%)	132 (96·4%)	−2·5	−8·2 to 2·9
Cured and alive†	133 (91·1%)	126 (92·0%)	−0·9	−7·7 to 6·0
Cured without further antibiotic treatment‡	NA	NA	NA	NA

ORIGINAL ARTICLE

Antibiotic Therapy for 6 or 12 Weeks for Prosthetic Joint Infection

L. Bernard, C. Arvieux, B. Brunschweiler, S. Touchais, S. Ansart, J.-P. Bru, E. Oziol, C. Boeri, G. Gras, J. Druon, P. Rosset, E. Senneville, H. Bentayeb, D. Bouhour, G. Le Moal, J. Michon, H. Aumaître, E. Forestier, J.-M. Laffosse, T. Begué, C. Chirouze, F.-A. Dauchy, E. Devaud, B. Martha, D. Burgot, D. Boutoille, E. Stindel, A. Dinh, P. Bemer, B. Giraudeau, B. Issartel, and A. Caille

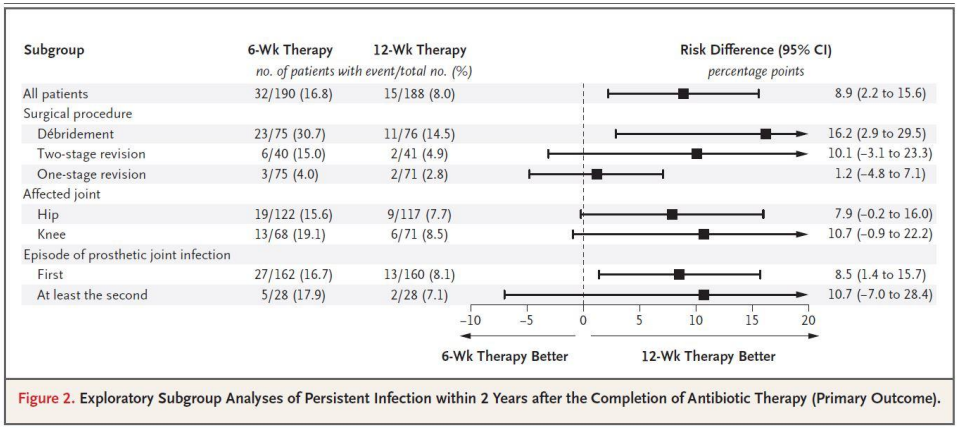


Figure 2. Exploratory Subgroup Analyses of Persistent Infection within 2 Years after the Completion of Antibiotic Therapy (Primary Outcome).

INFECTION URINAIRE

JAMA | Original Investigation

Effect of 7 vs 14 Days of Antibiotic Therapy on Resolution of Symptoms Among Afebrile Men With Urinary Tract Infection

A Randomized Clinical Trial

Dimitri M. Drekonja, MD, MS; Barbara Trautner, MD, PhD; Carla Amundson, MA; Michael Kuskowski, PhD; James R. Johnson, MD

Efficacy of 7 versus 14 days of antibiotic therapy in male with febrile urinary tract infection due to fluoroquinolone susceptible organisms.
PROSTASHORT: a randomized clinical trial.

Characteristic	No./total No. (%)		
Resolution of UTI symptoms 14 days after stopping active antimicrobials	7-Day antimicrobial + 7-day placebo group	14-Day antimicrobial group	Absolute difference, % (1-sided 97.5% CI)[a]
As-treated population (primary analysis)	122/131 (93.1)	111/123 (90.2)	2.9 (-5.2 to ∞)
As-randomized population	125/136 (91.9)	123/136 (90.4)	1.5 (-5.8 to ∞)
Recurrence of UTI symptoms within 28 days of stopping study medication (secondary outcome)	7-Day antimicrobial + 7-day placebo group	14-Day antimicrobial group	Absolute difference, % (2-sided 95% CI)[b]
As-treated population	13/131 (9.9)	15/123 (12.9)	-3.0 (-10.8 to 6.2)
As-randomized population	14/136 (10.3)	23/136 (16.9)	-6.6 (-15.5 to 2.2)

Analysis	Patients	% (95%CI)	14-day antibiotic therapy	% (95%CI)	7-day antibiotic therapy	% (95%CI)	Absolute Difference (95%CI)
Per-protocol	225		117		108		
Cure	160	71.1% [64.7;76.9]	96	82.1% [73.9;88.5]	64	59.3% [49.4;68.6]	-22.8% [-34.2;-11]
Intention to treat	240		125		115		
Cure	161	67.1% [60.7;73]	97	76.6% [69.3;84.6]	64	55.7% [46.1;64.9]	- 21.9 %[-33.3;-10.1]

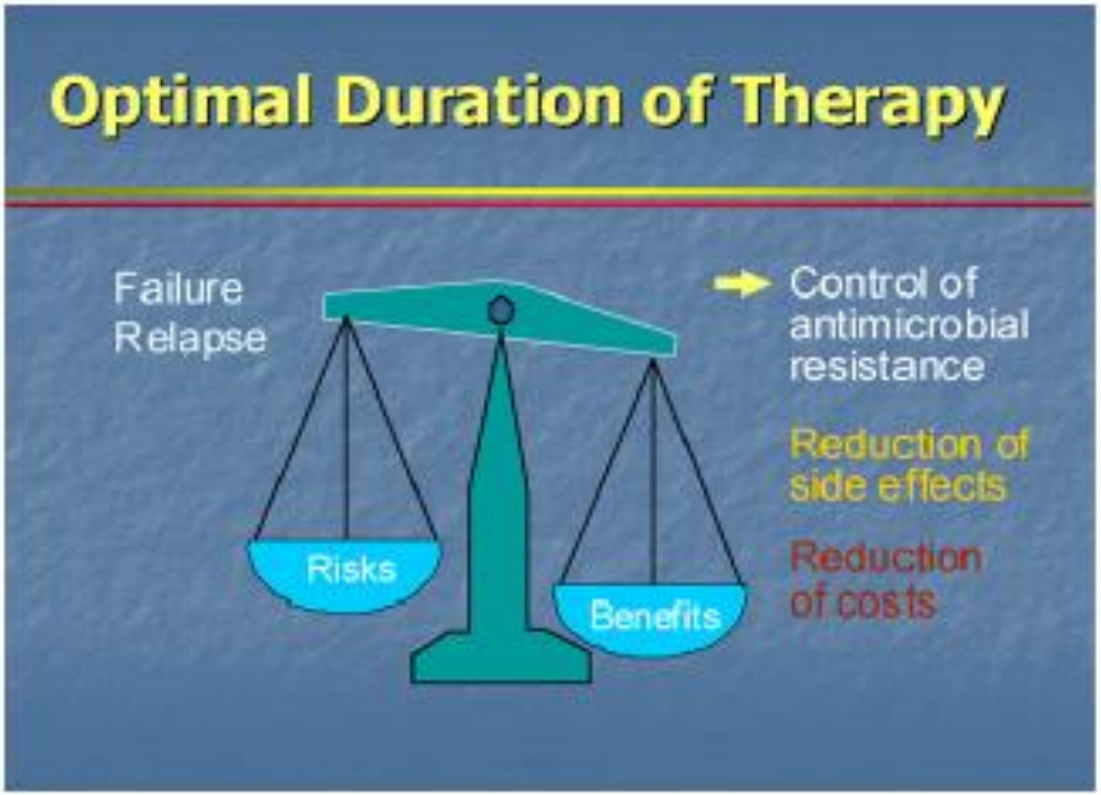
« WE KNOW EVERYTHING ABOUT ANTIBIOTICS EXCEPT HOW MUCH TO GIVE »

Maxwell Finland

MERCI

INTÉRÊT INDIVIDUEL/COLLECTIF

- Intolérance et EIG = échec et….émergence de résistances
- Balance bénéfice/risque



Rubinstein E. Int J Antimicrob Agents. 2007

TOUJOURS PLUS COURT : RECOMMANDATIONS

RECOMMANDATIONS

- **IDSA/ATS guidelines** (Metlay *et al.* CID 2019)

Patients with CAP should be treated for a minimum of **5 days**.

The recommended duration for patients with **good clinical response** within the first 2-3 d of therapy is 5 to 7 days total.

- **NICE recommendations** (2019)

5 day course of antibiotic therapy for patients with low severity CAP;

Consider a **7-10** day course of antibiotic therapy for patients with moderate **and high severity** CAP.

TOUJOURS PLUS COURT :
3 JOURS ?

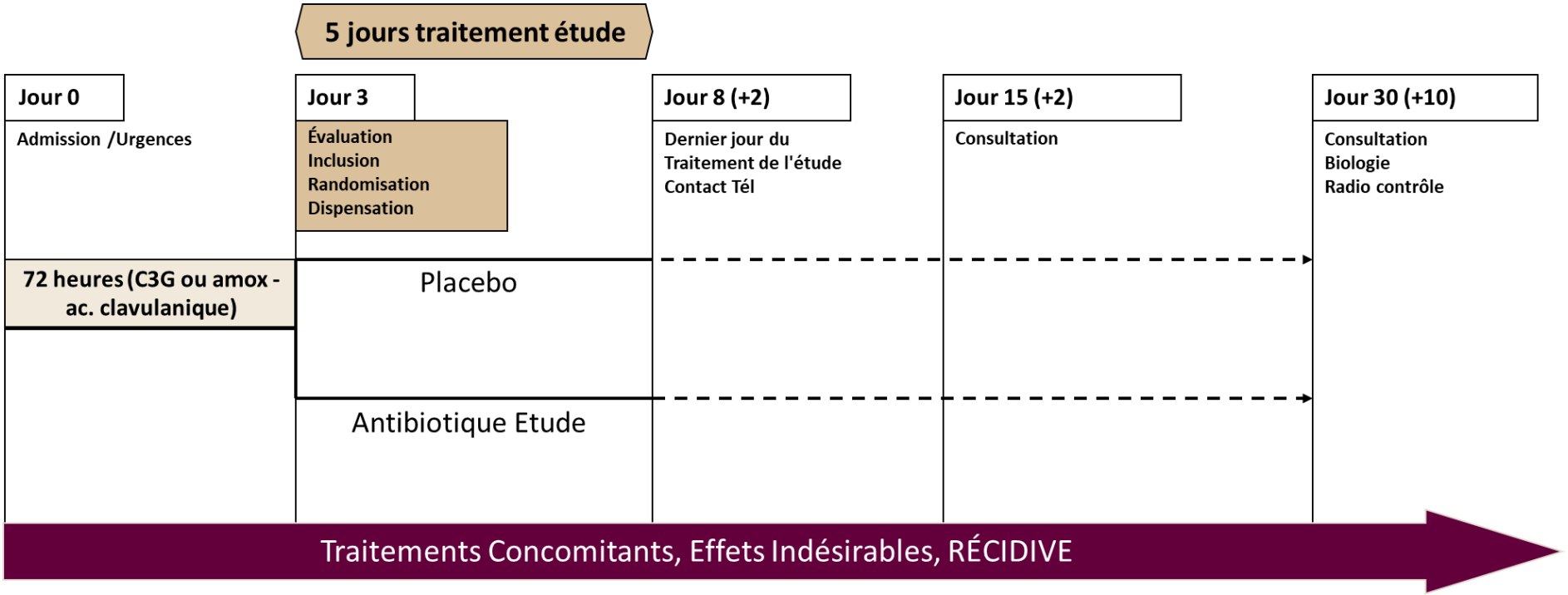
Discontinuing β-lactam treatment after 3 days for patients with community-acquired pneumonia in non-critical care wards (PTC): a double-blind, randomised, placebo-controlled, non-inferiority trial

Aurélien Dinh, Jacques Ropers, Clara Duran, Benjamin Davido, Laurène Deconinck, Morgan Matt, Olivia Senard, Aurore Lagrange, Sabrina Makhloufi, Guillaume Mellon, Victoire de Lastours, Frédérique Bouchand, Emmanuel Mathieu, Jean-Emmanuel Kahn, Elisabeth Rouveix, Julie Grenet, Jennifer Dumoulin, Thierry Chinet, Marion Pépin, Véronique Delcey, Sylvain Diamantis, Daniel Benhamou, Virginie Vitrat, Marie-Christine Dombret, Bertrand Renaud, Christian Perronne, Yann-Erick Claessens, José Labarère, Jean-Pierre Bedos, Philippe Aegerter, Anne-Claude Crémieux, for the Pneumonia Short Treatment (PTC) Study Group

- Hypothèse de l'étude :
  - Une antibiothérapie de 3 jours est suffisante chez les patients avec une PAC présentant une stabilité clinique (1)
  - Après 3 jours de traitement efficace par béta lactamines (amoxicilline-acide clavulanique ou céphalosporines de 3ème génération)
  - Chez les patients présentant une PAC modérément sévères (hors réanimation)

(1) Halm *et al*. NEJM 2002

SCHÉMA DE L'ÉTUDE



CRITÈRES D'INCLUSION

- **Age > 18 ans**
- Ayant consulté en urgence 3 jours avant
- **Admis pour PAC**

J0
- **1 des signes** : dyspnée, toux, expectoration muco-purulante, foyer de crépitants
- \+ T°C > **38**
- \+ Nouvel **infiltrat** à la RX

- **Ayant répondu à 3 jours de TT** par C3G ou amox-clav.

J3
- **Critères de stabilité IDSA :**
- T°C ≤ 37,8
- \+ FC < 100/min et
- \+ FR < 24c/min
- \+ SaO2 ≥ 90%
- \+ Pression artérielle systolique ≥ 90 mmHg
- \+ Apte à prendre un traitement oral

- Ayant donné son consentement éclairé

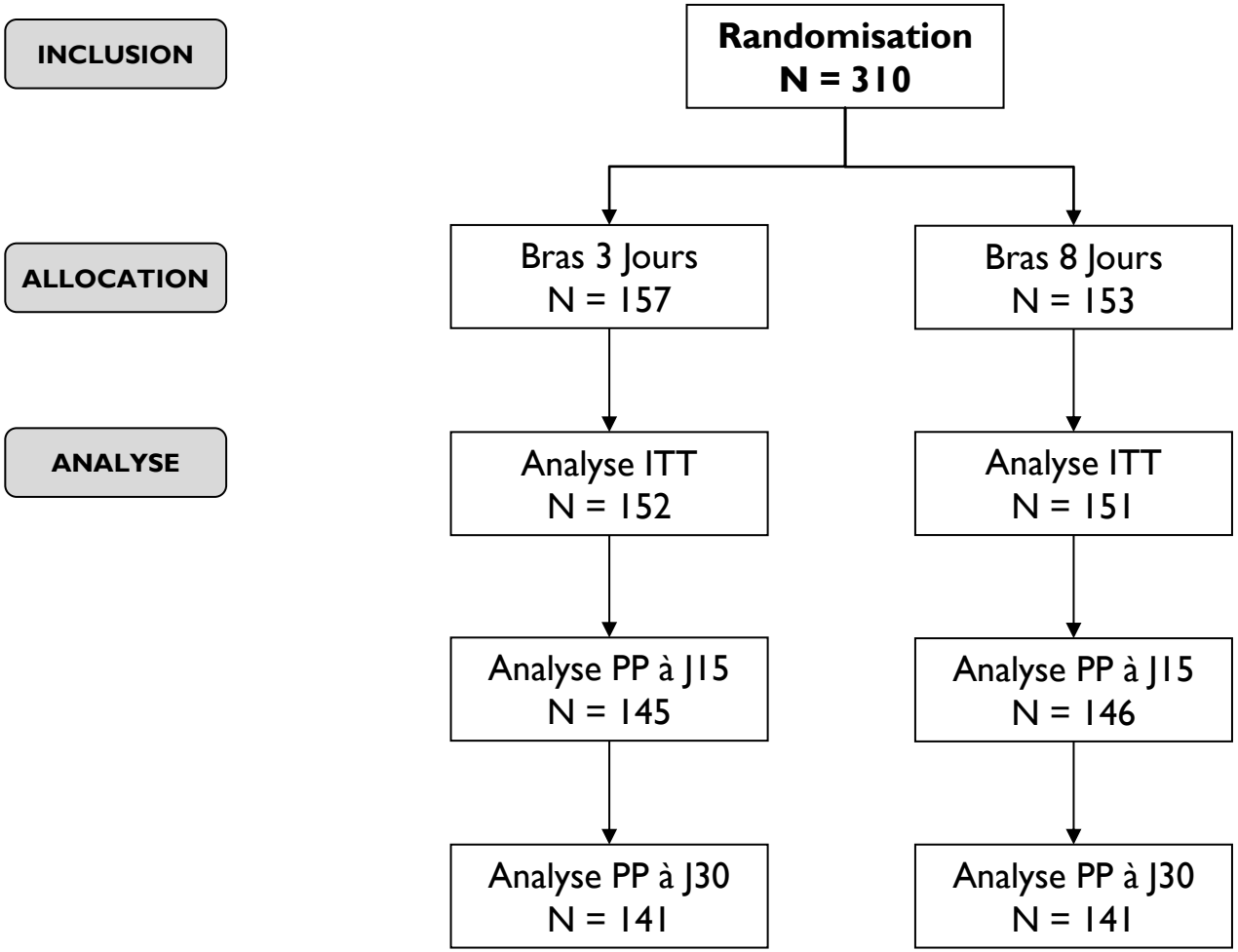
CRITÈRES DE NON INCLUSION

- **PAC sévère ou compliquée** (abcès, épanchement pleural significatif, insuffisance respiratoire chronique sévère, choc septique, état respiratoire nécessitant le passage en réanimation)
- **Terrain immunodéprimé connu** (asplénie, neutropénie, agammaglobulinémie, immunosuppresseurs, greffé, corticothérapie, myélome, lymphome, VIH connu, drépanocytose, cirrhose CHILD C)
- Antibiothérapie préalable de plus de 24 h avant la consultation aux urgences
- Bithérapie (patients ayant reçu une seule dose de macrolides ou de fluoroquinolones aux urgences non exclus)
- Légionellose suspectée
- Clairance de la créatinine < à 30ml/min
- Antécédents d'ictères/Atteinte hépatique liés à l'amox/ac.clav
- Antécédent d'hypersensibilité à une β-lactamine
- **Pneumonies liées aux soins**
- **Suspicion de pneumopathie d'inhalation**
- Infection intercurrente requérant un traitement antibiotique
- Femmes enceintes
- Allaitement
- Espérance de vie < 1 mois
- Patient sous tutelle ou sans couverture sociale
- Personnes sans domicile fixe

CRITÈRE DE JUGEMENT PRINCIPAL

- **Guérison** définie à J15 par association de :
  - Apyrexie (température corporelle ≤ 37,8°C)
  - Disparition ou amélioration des signes cliniques suivants s'ils étaient initialement présents :
    - dyspnée,
    - toux,
    - expectorations muco-purulentes,
    - foyer de crépitants
  - Sans antibiothérapie additionnelle depuis J3

DIAGRAMME DE FLUX



POPULATION (1)

	Groupe 3 jours	Groupe 8 jours
N patients	152	151
Sexe masculin (n, %)	86 (56,6)	94 (62,2)
Âge (médiane, IQR)	72,5 [54,0, 85,3]	74,0 [58,0, 83,0]
Comorbidités* (n, %)		
Hépatopathie	5 (3,3)	2 (1,3)
Insuffisance cardiaque	30 (19,7)	33 (21,9)
Pathologie cérébrale vasculaire	13 (8,5)	10 (6,7)
Pathologie rénale	13 (8,5)	11 (7,3)
Insuffisance coronaire	24 (15,8)	20 (13,2)
Diabète	24 (15,8)	32 (21,2)
Pathologie pulmonaire chronique	31 (20,4)	40 (26,5)
Tabagisme actif	30 (19,7)	25 (16,6)
Score PSI (médiane, IQR)	80,5 [57,0, 105,0]	83,0 [58,0, 104,0]
Fine 2 (PSI ≤ 70) (n, %)	56 (36,8)	55 (36,4)
Fine 3 (PSI = 71-90) (n, %)	39 (25,6)	34 (22,5)
Fine 4 (PSI = 91-130) (n, %)	45 (29,6)	56 (37,1)
Fine 5 (PSI > 131) (n, %)	12 (7,9)	6 (3,9)

* Les patients peuvent avoir plus d'une comorbidité.
IQR : interquartile range ; PSI : pneumonia severity index

POPULATION (2)

	Groupe 3 jours	Groupe 8 jours
N patients	152	151
Paramètres biologiques à l'admission (médiane, IQR)		
Hémoglobine (g/dL)	12,8 [11,9, 13,9]	13,1 [11,9, 14,3]
Leucocytes (G/L)	11,5 [8,1, 16,0]	11,7 [8,7, 15,2]
Polynucléaire neutrophiles (G/L)	9,8 [6,6, 14,4]	9,7 [6,9, 12,9]
Urée (mmol/L)	6,7 [4,8, 8,8]	5,9 [4,7, 8,0]
Glucose (mmol/L)	6,2 [5,4, 7,0]	6,2 [5,3, 7,5]
Créatinine (µmol/L)	78,0 [65,0, 100,0]	79,0 [63,0, 96,0]
C-Reactive Protein (mg/L)	134,0 [59,0, 234,0]	104,0 [46,8, 200,0]
Examen radiologique		
Multi-lobaire (n, %)	30 (20%)	23 (15%)

IQR : interquartile range

CRITÈRE PRINCIPAL : GUÉRISON À J15

	3 jours de traitement	8 jours de traitement	95% CI
J15 (n, %)			
Guérison – analyse ITT	117/152 (77.0%)	102/151 (67.5%)	[-0.38%; 20.04%]
Guérison – analyse PP	113/145 (77.9%)	100/146 (68.5%)	[-0.15%; 20.34%]

CRITÈRE SECONDAIRE : GUÉRISON À J30

	3 jours de traitement	8 jours de traitement	95% CI
J30 (n, %)			
Guérison – analyse ITT	109/152 (71.7%)	109/151 (72.2%)	[-11.31%; 9.98%]
Guérison – analyse PP	105/141 (74.5%)	107/141 (75.9%)	[-12.08%; 9.2%]

CHEZ LES JEUNES

Sous-population		3 jours de traitement (n ; %)	8 jours de traitement (n ; %)	P-value
<65 ans	J15 PP	46 (86,8)	39 (81,2)	0,59
	J30 PP	43 (84,3)	35 (76,1)	0,32
>65 ans	J15 PP	67 (72,8)	61 (62,2)	0,13
	J30 PP	62 (68,9)	72 (75,8)	0,33

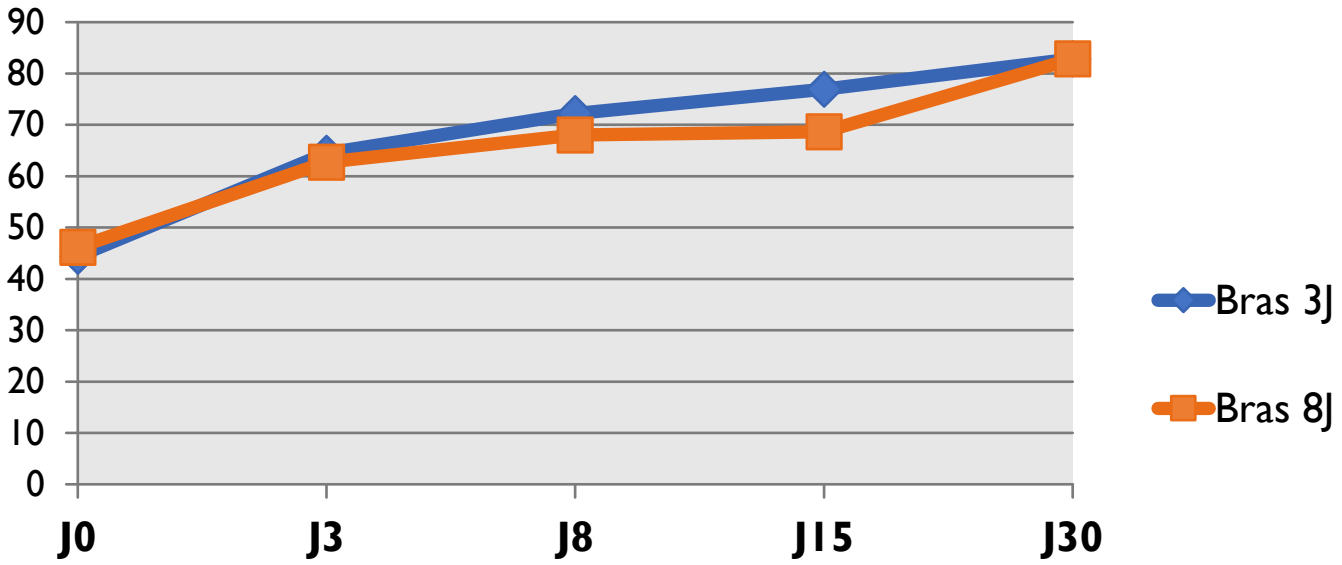
EN GÉRIATRIE

Sous-population		3 jours de traitement (n ; %)	8 jours de traitement (n ; %)	P-value
>75 ans	J15 PP	49 (71,0)	43 (61,4)	0,28
	J30 PP	43 (63,2)	51 (73,9)	0,20

GRAVITÉ

Sous-population		3 jours de traitement (n ; %)	8 jours de traitement (n ; %)	P value
PSI<91	J15 PP	74 (84,1)	65 (74,7)	0,14
	J30 PP	72 (84,7)	64 (77,1)	0,24
PSI>91	J15 PP	39 (68,4)	35 (59,3)	0,34
	J30 PP	33 (58,9)	43 (74,1)	0,11

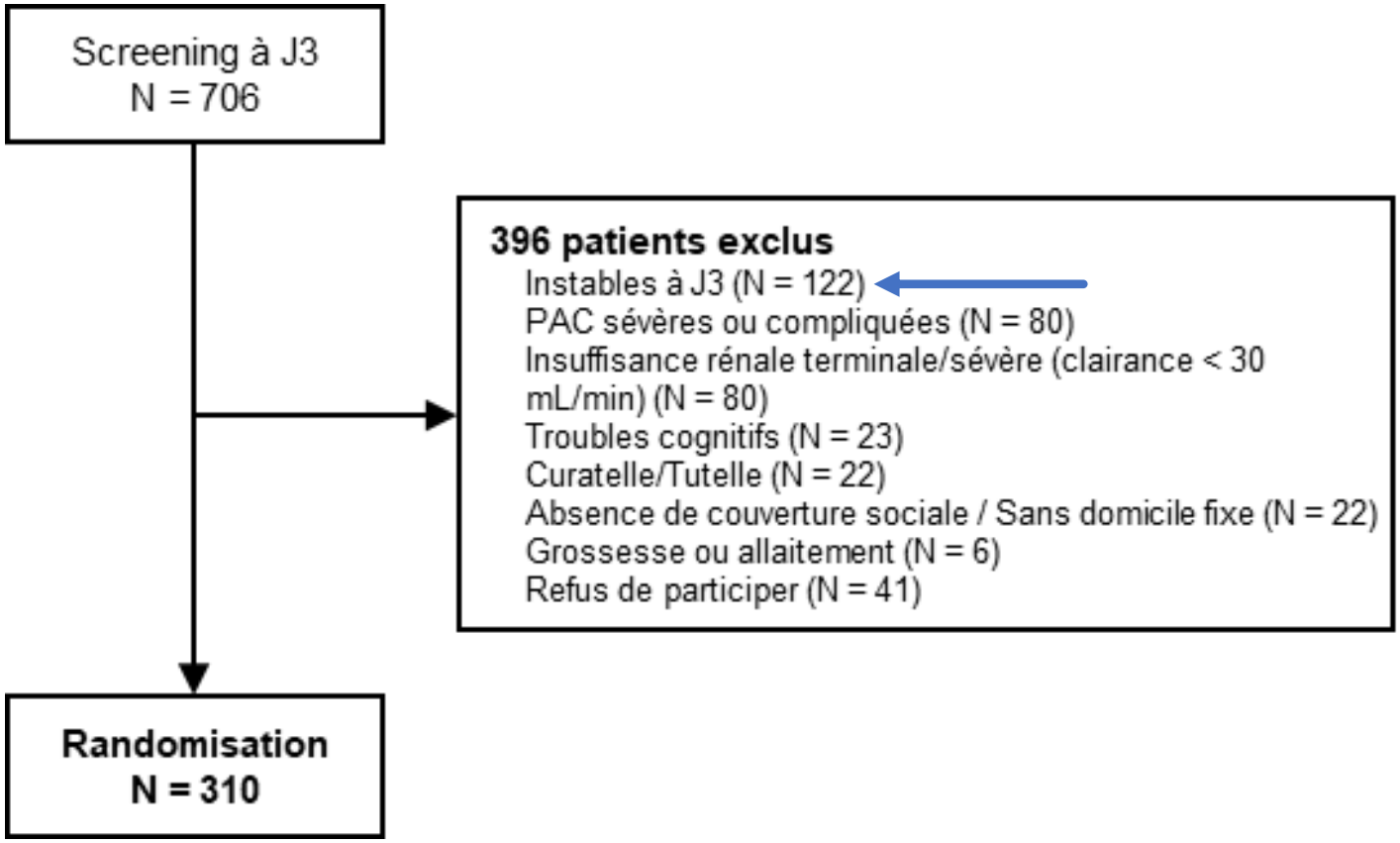
CAP SCORE



	J0	J3	J8	J15	J30
Groupe 3 jours (médiane, CI95%)	44.38 (28.4-55.03)	64.5 (43.79; 76.92)	72.19 (48.82- 82.84)	76.92 (55.03- 88.46)	82.84 (56.51- 91.72)
Groupe 8 jours (médiane, CI95%)	46.15 (26.04-60.36)	62.72 (42.6- 76.92)	68.05 (47.93- 82.84)	68.64 (49.26- 82.84)	82.84 (69.82- 95.27)

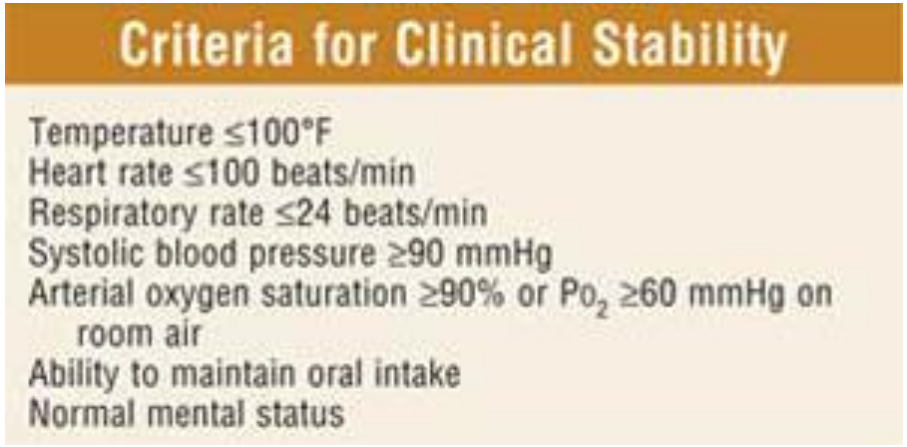
3 JOURS POUR TOUS ?

VERS UNE DURÉE INDIVIDUALISÉE ?



HISTORIQUE DES CRITÈRES DE STABILITÉ

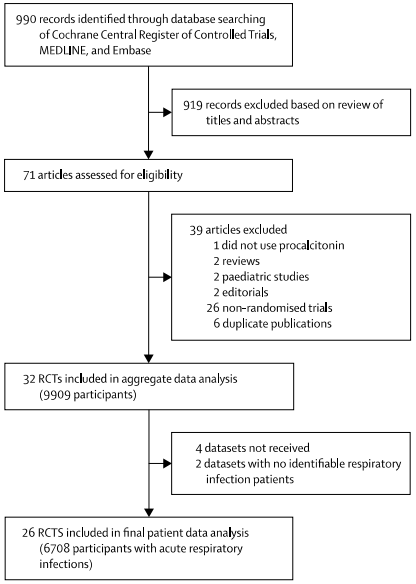
- Associé à bon pronostic (Halm *et al.* 2002)
- Critère de sortie d'hospitalisation (Halm et al. 1998 ; 2002)
- Critère de relais per os (Rhew et al. 2001)
- Critère d'arrêt après 48h ? (Uranga et al. 2016)
- Critère d'arrêt « quasi immédiat »



PCT ?

Effect of procalcitonin-guided antibiotic treatment on mortality in acute respiratory infections: a patient level meta-analysis

Philipp Schuetz, Yannick Wirz*, Ramon Sager*, Mirjam Christ-Crain, Daiana Stolz, Michael Tamm, Lila Bouadma, Charles E Luyt, Michel Wolff, Jean Chastre, Florence Tubach, Kristina B Kristoffersen, Olaf Burkhardt, Tobias Welte, Stefan Schroeder, Vandack Nobre, Long Wei, Heiner C Bucher, Djillali Annane, Konrad Reinhart, Ann R Falsey, Angela Branche, Pierre Damas, Maarten Nijsten, Dylan W de Lange, Rodrigo O Deliberato, Carolina F Oliveira, Vera Maravić-Stojković, Alessia Verduri, Bianca Beghé, Bin Cao, Yahya Shehabi, Jens-Ulrik S Jensen, Caspar Corti, Jos A H van Oers, Albertus Beishuizen, Armand R J Girbes, Evelien de Jong, Matthias Briel*, Beat Mueller*



Schuetz *et al.* Lancet 2017

	Control (n=3372)	Procalcitonin group (n=3336)
Age, years	61·2 (18·4)	60·7 (18·8)
Sex		
Men	1910 (57%)	1898 (57%)
Women	1462 (43%)	1438 (43%)
Clinical setting		
Primary care	501 (15%)	507 (15%)
Emergency department	1638 (49%)	1615 (48%)
ICU	1233 (37%)	1214 (36%)
Primary diagnosis		
Total upper acute respiratory infection	280 (8%)	292 (9%)
Common cold	156 (5%)	149 (4%)
Rhino-sinusitis, otitis	67 (2%)	73 (2%)
Pharyngitis, tonsillitis	46 (1%)	61 (2%)
Total lower acute respiratory infection	3092 (92%)	3044 (91%)
Community-acquired pneumonia	1468 (44%)	1442 (43%)
Hospital-acquired pneumonia	262 (8%)	243 (7%)
Ventilator-associated pneumonia	186 (6%)	194 (6%)
Acute bronchitis	287 (9%)	257 (8%)
Exacerbation of COPD	631 (19%)	621 (19%)
Exacerbation of asthma	127 (4%)	143 (4%)
Other lower acute respiratory infection	131 (4%)	144 (4%)
Procalcitonin dose on enrolment		
Data available	2590 (77%)	3171 (95%)
<0·1 µg/L	921 (36%)	981 (31%)
0·1–0·25 µg/L	521 (20%)	608 (19%)
>0·25–0·5 µg/L	308 (12%)	383 (12%)
>0·5–2·0 µg/L	358 (14%)	520 (16%)
>2·0 µg/L	482 (19%)	679 (21%)

Data are mean (SD) or n (%). ICU=intensive care unit. COPD=chronic obstructive pulmonary disease.

Effect of procalcitonin-guided antibiotic treatment on mortality in acute respiratory infections: a patient level meta-analysis

Philipp Schuetz, Yannick Wirz*, Ramon Sager*, Mirjam Christ-Crain, Daiana Stolz, Michael Tamm, Lila Bouadma, Charles E Luyt, Michel Wolff, Jean Chastre, Florence Tubach, Kristina B Kristoffersen, Olaf Burkhardt, Tobias Welte, Stefan Schroeder, Vandack Nobre, Long Wei, Heiner C Bucher, Djillali Annane, Konrad Reinhart, Ann R Falsey, Angela Branche, Pierre Damas, Maarten Nijsten, Dylan W de Lange, Rodrigo O Deliberato, Carolina F Oliveira, Vera Maravić-Stojković, Alessia Verduri, Bianca Beghé, Bin Cao, Yahya Shehabi, Jens-Ulrik S Jensen, Caspar Corti, Jos A H van Oers, Albertus Beishuizen, Armand R J Girbes, Evelien de Jong, Matthias Briel*, Beat Mueller*

	Control (n=3372)	Procalcitonin group (n=3336)	Adjusted OR (95% CI)*, p value	$p_{interaction}$
Overall				
30-day mortality	336 (10%)	286 (9%)	0·83 (0·7 to 0·99), p=0·037	..
Treatment failure	841 (25%)	768 (23%)	0·90 (0·80 to 1·01), p=0·068	..
Length of ICU stay, days	13·3 (16·0)	13·7 (17·2)	0·39 (–0·81 to 1·58), p=0·524	..
Length of hospital stay, days	13·7 (20·6)	13·4 (18·4)	–0·19 (–0·96 to 0·58), p=0·626	..
Antibiotic-related side-effects	336/1521 (22%)	247/1513 (16%)	0·68 (0·57 to 0·82), p<0·0001	..

	Control (n=3372)	Procalcitonin group (n=3336)	Adjusted OR or difference (95% CI), p value*	$p_{interaction}$
Overall				
Initiation of antibiotics	2894 (86%)	2351 (70%)	0·27 (0·24 to 0·32), p<0·0001	..
Duration of antibiotics, days†	9·4 (6·2)	8·0 (6·5)	–1·83 (–2·15 to –1·5), p<0·0001	..
Total exposure of antibiotics, days‡	8·1 (6·6)	5·7 (6·6)	–2·43 (–2·71 to –2·15), p<0·0001	..

Schuetz *et al.* Lancet 2017

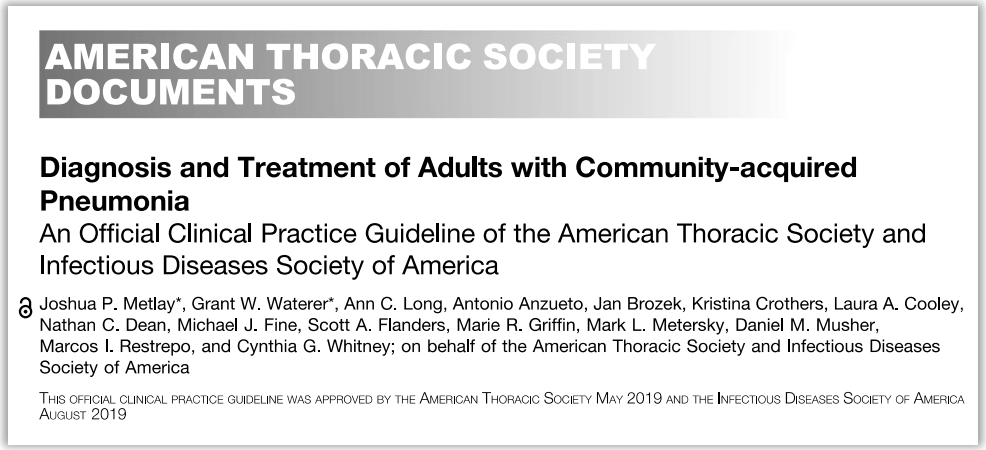
ORIGINAL ARTICLE

Procalcitonin-Guided Use of Antibiotics for Lower Respiratory Tract Infection

D.T. Huang, D.M. Yealy, M.R. Filbin, A.M. Brown, C.-C.H. Chang, Y. Doi, M.W. Donnino, J. Fine, M.J. Fine, M.A. Fischer, J.M. Holst, P.C. Hou, J.A. Kellum, F. Khan, M.C. Kurz, S. Lotfipour, F. LoVecchio, O.M. Peck-Palmer, F. Pike, H. Prunty, R.L. Sherwin, L. Southerland, T. Terndrup, L.A. Weissfeld, J. Yabes, and D.C. Angus, for the ProACT Investigators*

- Objectif effet utilisation PCT pour ATB des infections respiratoires vs PEC comparer prise en charge habituelle
- RCT PCT rendu vs non rendu aux cliniciens pour patient avec suspicion infection respiratoire au SAU (14 hôpitaux)

Outcome	Procalcitonin (N=826)	Usual Care (N=830)	Difference (95% or 99.86% CI)†
Patients with final diagnosis of community-acquired pneumonia			
No. of patients	167	161	
Antibiotic-days by day 30	7.8±7.0	7.2±6.0	0.7 (–1.7 to 3.1)
Received any antibiotics by day 30 — estimated no./total no. (%)¶	148/167 (88.6)	154/161 (95.9)	–7.3 (–16.8 to 2.2)
Antibiotic prescription in ED — estimated no./total no. (%)¶‖	120/167 (71.9)	123/161 (76.3)	–4.4 (–19.9 to 11.0)
Antibiotic-days during hospital stay	3.9±3.0	4.1±3.1	–0.2 (–1.5 to 1.1)
Hospital length of stay — days	5.8±4.9	5.9±4.2	–0.1 (–1.2 to 1.1)



AMERICAN THORACIC SOCIETY DOCUMENTS

Diagnosis and Treatment of Adults with Community-acquired Pneumonia

An Official Clinical Practice Guideline of the American Thoracic Society and Infectious Diseases Society of America

Joshua P. Metlay*, Grant W. Waterer*, Ann C. Long, Antonio Anzueto, Jan Brozek, Kristina Crothers, Laura A. Cooley, Nathan C. Dean, Michael J. Fine, Scott A. Flanders, Marie R. Griffin, Mark L. Metersky, Daniel M. Musher, Marcos I. Restrepo, and Cynthia G. Whitney; on behalf of the American Thoracic Society and Infectious Diseases Society of America

This official clinical practice guideline was approved by the American Thoracic Society May 2019 and the Infectious Diseases Society of America August 2019

« Several studies have demonstrated that the duration of antibiotic therapy can be reduced in patients with CAP with the use of a procalcitonin-guided pathway and serial procalcitonin measurement compared with conventional care, but in most cases the average length of treatment was greatly in excess of current U.S. standards of practice as well as the recommendations of these current guidelines »

ALLEZ JUSQU'AU BOUT DU TRAITEMENT ?

thebmj

BMJ 2017;358:j3418 doi: 10.1136/bmj.j3418 (Published 2017 July 26) Page 1 of 5

ANALYSIS

The antibiotic course has had its day

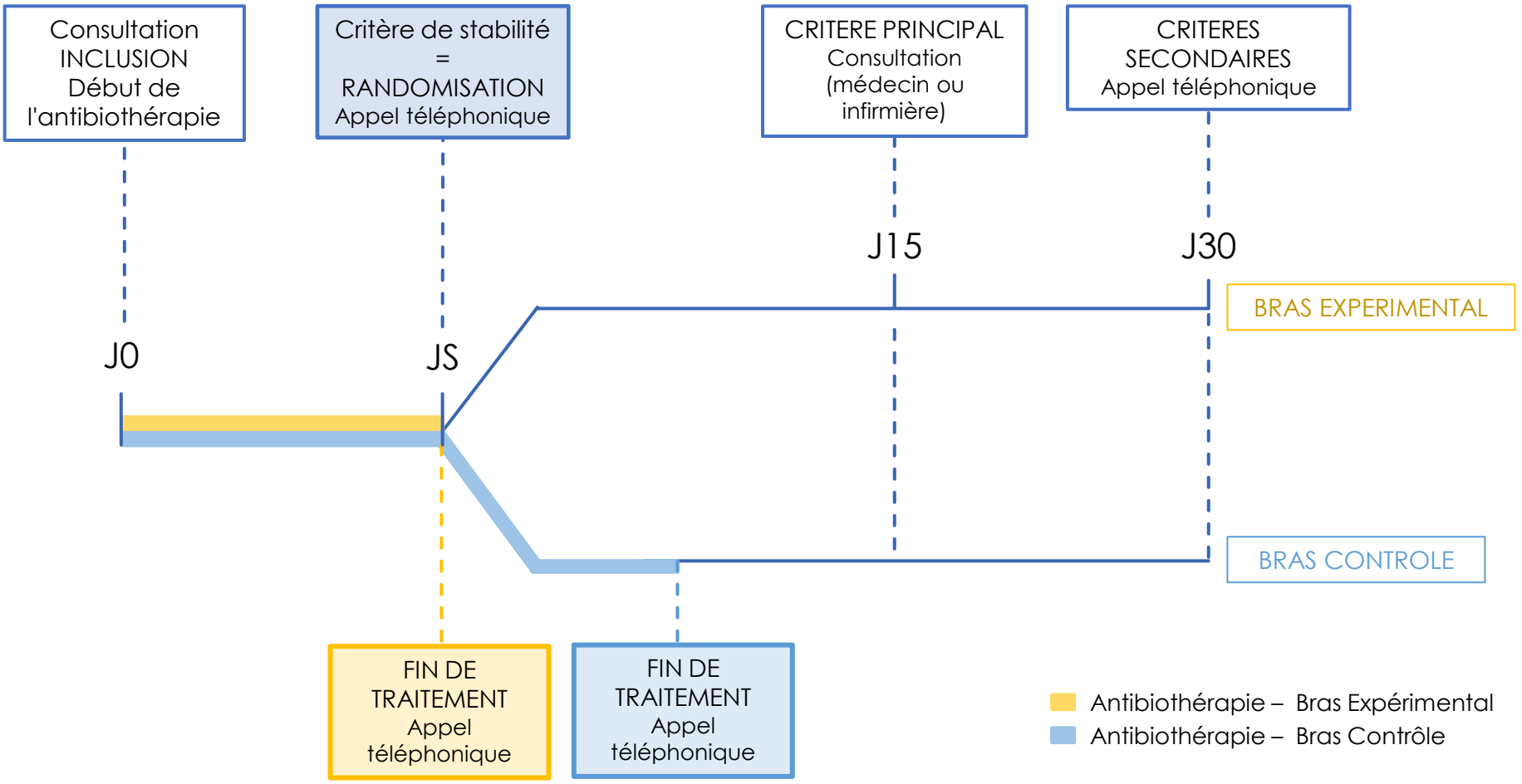
With little evidence that failing to complete a prescribed antibiotic course contributes to antibiotic resistance, it's time for policy makers, educators, and doctors to drop this message, argue **Martin Llewelyn and colleagues**

Martin J Llewelyn *professor of infectious diseases*[1 2], Jennifer M Fitzpatrick *specialist registrar in infection*[2], Elizabeth Darwin *project manager*[3], SarahTonkin-Crine *health psychologist*[4], Cliff Gorton *retired building surveyor*[5], John Paul *consultant in microbiology*[6], Tim E A Peto *professor of infectious diseases*[7], Lucy Yardley *professor of health psychology*[8], Susan Hopkins *consultant in infectious diseases and microbiology*[9], Ann Sarah Walker *professor of medical statistics and epidemiology*[3]

resistance. For example, in materials supporting Antibiotic Awareness Week 2016 WHO advised patients to "always complete the full prescription, even if you feel better, because stopping treatment early promotes the growth of drug-resistant bacteria."[4] Similar advice appears in national campaigns in

Changement de paradigme !!

PHRC CAT-CAP


Consultation INCLUSION Début de l'antibiothérapie
Critère de stabilité = RANDOMISATION Appel téléphonique
CRITERE PRINCIPAL Consultation (médecin ou infirmière)
CRITERES SECONDAIRES Appel téléphonique
J0
JS
J15
J30
BRAS EXPERIMENTAL
BRAS CONTROLE
FIN DE TRAITEMENT Appel téléphonique
FIN DE TRAITEMENT Appel téléphonique
Antibiothérapie – Bras Expérimental
Antibiothérapie – Bras Contrôle

TOUJOURS OU DÉJÀ PLUS COURT ?

CONCLUSION

- 3 jours pour les patients **stables** à J3
- Durée individualisée : critères d'arrêt clinique
- Plus court ?
- Réanimation ?