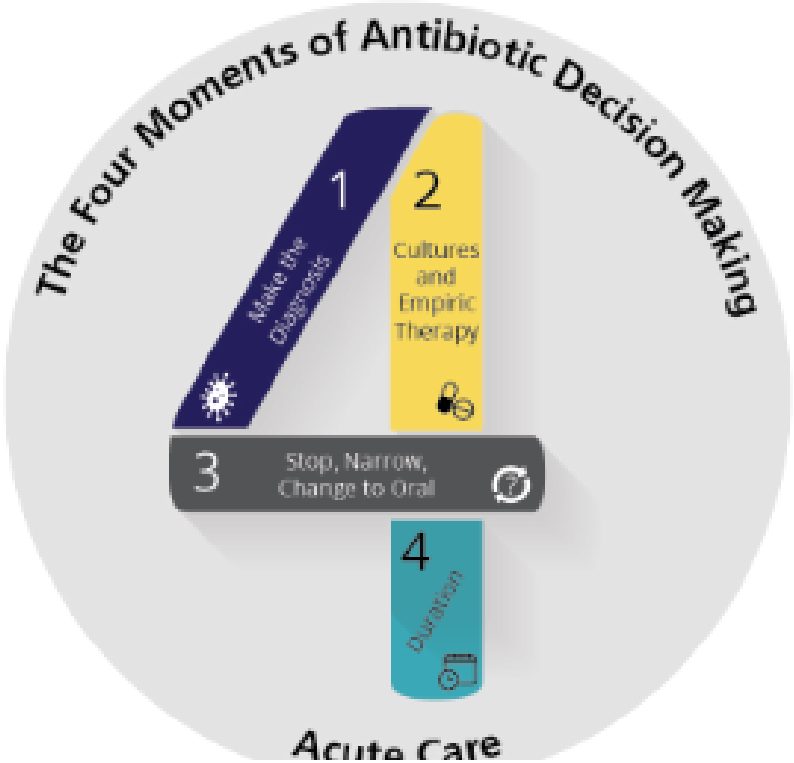
PNEUMONIES AIGUES COMMUNAUTAIRES LES PRINCIPES DE L'ANTIBIOTHÉRAPIE

AURÉLIEN DINH

MALADIES INFECTIEUSES, HÔPITAL R. POINCARÉ

APHP. UNIVERSITÉ PARIS SACLAY

Four Moments of Antibiotic Decision Making



Four Moments Questions

Moment 1: Does my patient have an infection that requires antibiotics? +

Moment 2: Have I ordered appropriate cultures before starting antibiotics? What empiric therapy should I initiate? +

Moment 3: A day or more has passed. Can I stop antibiotics? Can I narrow therapy or change from IV to oral therapy? These questions should be asked every day that a patient is on antibiotics. +

Moment 4: What duration of antibiotic therapy is needed for my patient's diagnosis? +

QUAND TRAITER ?

Signes fonctionnels respiratoires fébrile

+

Image pulmonaire

Table 1. Characteristics of Adults with Community-Acquired Pneumonia Requiring Hospitalization.

Characteristic	Adults with Radiographic Evidence of Pneumonia (N = 2320)
Age group — no. (%)	
18–49 yr	701 (30)
50–64 yr	787 (34)
65–79 yr	517 (22)
≥80 yr	315 (14)

<u>Intérêt des biomarqueurs</u>

PCT >> Non (ATS 2019)

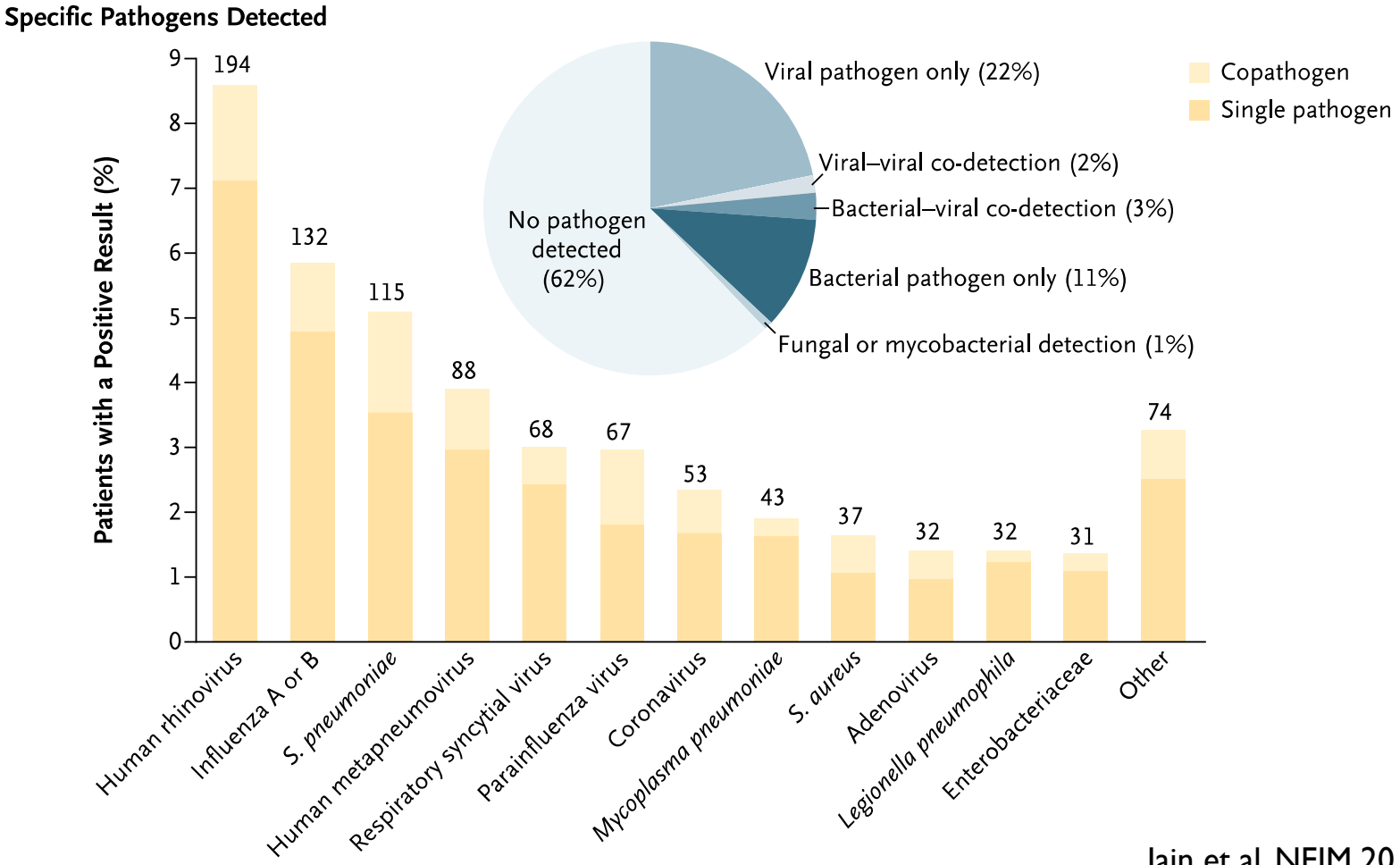
CRP >> Non (NICE 2019)

Jain et al. NEJM 2015

ORIGINAL ARTICLE

Community-Acquired Pneumonia Requiring Hospitalization among U.S. Adults

S. Jain, W.H. Self, R.G. Wunderink, S. Fakhran, R. Balk, A.M. Bramley, C. Reed, C.G. Grijalva, E.J. Anderson, D.M. Courtney, J.D. Chappell, C. Qi, E.M. Hart, F. Carroll, C. Trabue, H.K. Donnelly, D.J. Williams, Y. Zhu, S.R. Arnold, K. Ampofo, G.W. Waterer, M. Levine, S. Lindstrom, J.M. Winchell, J.M. Katz, D. Erdman, E. Schneider, L.A. Hicks, J.A. McCullers, A.T. Pavia, K.M. Edwards, and L. Finelli, for the CDC EPIC Study Team*



Jain et al. NEJM 2015

Computed tomography scan contribution to the diagnosis of community-acquired pneumonia

Nicolas Garin[a,b], Christophe Marti[a], Max Scheffler[c], Jérôme Stirnemann[a], and Virginie Prendki[d]

Recent findings

Two studies assessed the diagnostic accuracy of CT-scan in emergency department or hospitalized patients suspected of pneumonia. CT-scan led to a net reclassification improvement of 8 and 18% of patients, and was particularly helpful to rule out the diagnosis, allowing a lowering of the number of inappropriate antibiotic prescriptions.

	CT scan	CXR	LUS
Availability			
Ambulatory setting	–	+	++
Emergency department	+	++	++
Irradiation	++	+	–
Sensitivity[a]	++	+	+(+)
Specificity[a]	++	–	+(+)
Identification of other diagnosis	+++	+	++
Not affected by patient's conditions (bedridden; acute confusion)	++	–	+

- Claessens YE, Debray MP, Tubach F, et al. Early chest computed tomography scan to assist diagnosis and guide treatment decision for suspected com- munity-acquired pneumonia. Am J Respir Crit Care Med 2015; 192:974 – 982.
- Prendki V, Scheffler M, Huttner B, et al. Low-dose CT for the diagnosis of & pneumonia in elderly patients: a prospective, interventional cohort study. Eur Respir J 2018; 51.

PRINCIPES

- ATB probabiliste (doit prendre en compte agents les plus souvent responsables)
- Réévaluation (48h) : clinique +/- microbiologique
- Modification ou poursuite
- Relais per os rapide (<48h)
- Durée totale (5-7j ?)
- Eviter les FQ (risque de R si prise antérieure, sélection de R, EI) !

QUELLE URGENCE ?

- Offer an antibiotic(s) within 4 hours of establishing a diagnosis

- **ATB < 8h / admission = diminution de la mortalité**
  - À 30 jours : OR= 0,85 (95% IC = 0,75-0,96)

- **ATB < 4 h / admission = diminution de la mortalité**
  - Hospitalière : AOR= 0,85 (95% IC = 0,74-0,98)
  - À 30 jours : AOR = 0,85 (95% IC = 0,76-0,95)

Meehan TP et al. JAMA 1997, 278 : 2080-4
Houck PM et al. Arch Intern Med 2004, 164 : 637-44

Time to antibiotics administration and outcome in community-acquired pneumonia: Secondary analysis of a randomized controlled trial

Christophe Marti [a], Gregor John [b], Daniel Genné [c], Virginie Prendki [a], Olivier T. Rutschmann [d], Jérôme Stirnemann [a], Nicolas Garin [e,*]

	TTA[a] < 4 h N. = 217 N. (%)	TTA > = 4 h N. = 154 N. (%)	*P* value
ICU[b] admission	15 (6.9)	5 (3.2)	0.162
In hospital death	4 (1.8)	5 (3.2)	0.498
30-day death	8 (3.7)	7 (4.5)	0.679
90-day death	14 (6.5)	13 (8.4)	0.467
30-day readmission	14 (6.5)	14 (9.1)	0.343
90-day readmission	27 (12.4)	32 (20.8)	0.030

European journal of Intern med. 2017

EN AMBULATOIRE

	Premier choix	Échec à 48 – 72 h
Sujet présumé sain, sans signe de gravité		
Suspicion de pneumocoque (début brutal)	Amoxicilline (1 g x 3 /j)	Macrolide **Hospitalisation si deuxième échec**
Suspicion de bactéries "atypiques"	Macrolide	Amoxicilline (1 g x 3 /j) **Hospitalisation si deuxième échec**
Sujet avec co-morbidité(s) ou sujet âgé ambulatoire (hors institution), sans signe de gravité	Amoxicilline / acide clavulanique (1 g x 3 /j) ou C3G ou FQAP (lévofloxacine (500 mg x 1-2 /j))	**Hospitalisation**

PATIENTS HOSPITALISÉS

	Premier choix	Échec à 48 – 72 h
Sujet jeune	Amoxicilline (1 g x 3 /j)	Association à un macrolide ou substitution par FQAP (lévofloxacine (500 mg x 1-2 /j))
		Réévaluation
Sujet âgé **Sujet avec co-morbidité(s)**	Amoxicilline/acide clavulanique (1 g x 3 /j) ou céfotaxime (1 à 2 g x 3 /j) ou ceftriaxone (1 à 2 g x 1 /j)	Association à un macrolide ou substitution par FQAP (lévofloxacine (500 mg x 1-2 /j))
	ou FQAP (lévofloxacine (500 mg x 1-2 /j))	**Réévaluation**

RÉANIMATION

	Premier choix
Sujet jeune, sujet âgé, sujet avec co-morbidité(s)	C3G (céfotaxime IV (1 à 2 g x 3 /j) ou ceftriaxone IV (1 à 2 g x 1 /j)) + macrolide IV ou FQAP (lévofloxacine (500 mg x 1-2 /j))
Facteurs de risques de *Pseudomonas* : bronchectasies, mucoviscidose, antécédents d'exacerbations de BPCO dues à *P. aeruginosa*	Bêta-lactamine anti-Pseudomonas : - pipéracilline/tazobactam (4 g x 3 /j) - ou ceftazidime (2gX3/j) - ou céfépime (2 g x 2 /j) - ou carbapénème (imipénème (1 g x 3 /j), ou méropénème (1 à 2 g x 3 /j), ou doripénème (500 mg x 3 /j))
	+/- aminoside
	+/- antibiotique actif sur les bactéries intracellulaires : macrolide IV ou FQAP IV (lévofloxacine (500 mg x 1-2 /j))

afssaps
Agence française de sécurité sanitaire des produits de santé

Traitement antibiotique de la légionellose chez l'adulte

Actualisation

Gravité de la légionellose / terrain sous-jacent	Choix antibiotique
Légionellose non grave : **Patient ambulatoire** **ou** **hospitalisé dans un service d'urgences ou en médecine**	**Monothérapie par Macrolide[1] :** Azithromycine[2] ou clarithromycine ou roxithromycine ou josamycine ou spiramycine ou érythromycine
Légionellose grave : **Patient hospitalisé dans un service de soins intensifs ou de réanimation,** **et/ou** **Patient immunodéprimé**	**Soit monothérapie par Fluoroquinolone[1] :** lévofloxacine ou ofloxacine ou ciprofloxacine
	Soit association[3] de 2 antibiotiques au sein des 3 familles d'antibiotiques suivantes : - **Macrolide disponible par voie IV[1] :** spiramycine ou érythromycine (en cas d'indisponibilité de la spiramycine) - **Fluoroquinolone[1,4] :** lévofloxacine ou ofloxacine ou ciprofloxacine - **Rifampicine**

AFSSAPS 2012

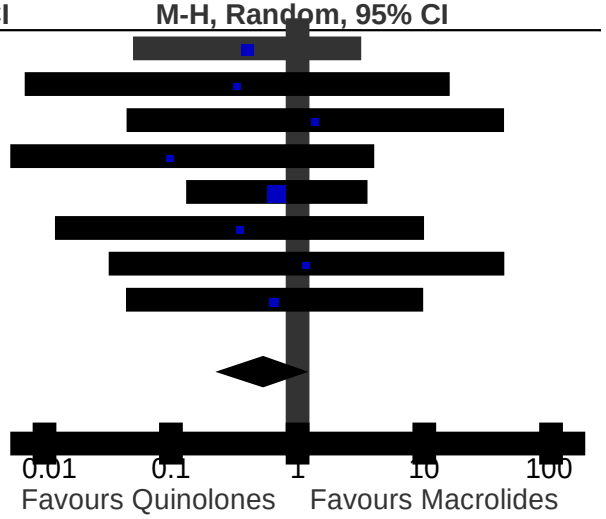
Quinolones versus macrolides in the treatment of legionellosis: a systematic review and meta-analysis

C. Burdet[1–3]*, R. Lepeule[4], X. Duval[3,5], M. Caseris[1], C. Rioux[1], J.-C. Lucet[3,6] and Y. Yazdanpanah[1,3]

A

Study or Subgroup	Quinolones Events	Quinolones Total	Macrolides Events	Macrolides Total	Weight	Odds Ratio M-H, Random, 95% CI
Dournon 1990	2	7	10	20	20.9%	0.40 [0.06, 2.57]
Gacouin 2002	2	3	2	2	5.4%	0.33 [0.01, 12.82]
Blazquez-Garrido 2005	1	143	0	65	7.0%	1.38 [0.06, 34.30]
Querol-Ribelles 2005	0	8	1	3	5.9%	0.10 [0.00, 3.24]
Sabria 2005	3	54	6	76	35.3%	0.69 [0.16, 2.87]
Haranaga 2006	0	9	2	18	7.3%	0.35 [0.02, 8.02]
Nakamura 2009	1	12	0	4	6.3%	1.17 [0.04, 34.52]
Griffin 2010	1	17	2	23	11.7%	0.66 [0.05, 7.89]
Total (95% CI)		**253**		**211**	**100.0%**	**0.54 [0.23, 1.26]**
Total events	10		23			

Heterogeneity: Tau² = 0.00; Chi² = 1.82, df = 7 (P = 0.97); I² = 0%
Test for overall effect: Z = 1.42 (P = 0.16)

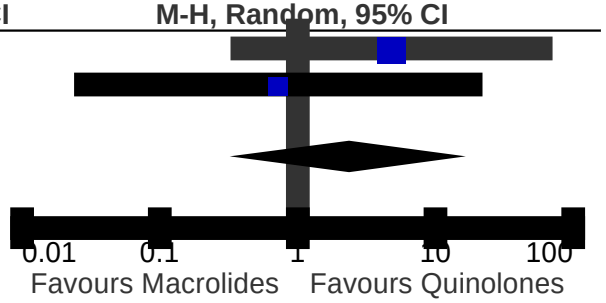


Mortalité

B

Study or Subgroup	Quinolones Events	Quinolones Total	Macrolides Events	Macrolides Total	Weight	Odds Ratio M-H, Random, 95% CI
Fogarty 2004	4	5	5	11	62.5%	4.80 [0.40, 58.01]
Blazquez-Garrido 2005	142	143	65	65	37.5%	0.73 [0.03, 18.04]
Total (95% CI)		**148**		**76**	**100.0%**	**2.36 [0.33, 16.92]**
Total events	146		70			

Heterogeneity: Tau² = 0.00; Chi² = 0.83, df = 1 (P = 0.36); I² = 0%
Test for overall effect: Z = 0.85 (P = 0.39)



Guérison

JAC 2014

DURÉE DE TRAITEMENT ANTIBIOTIQUE

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.

Pneumonie aiguë communautaire

- Si amélioration clinique au moment de la réévaluation à J+3 (apyrexie, amélioration des signes vitaux) : 5 jours
- Si pas d'amélioration à J3 : 7 jours maximum
- **PAC hospitalisée en réanimation** : 7 jours, si amélioration clinique
- **Légionellose** : 14 jours (si azithromycine: 5 jours)

JAMA Internal Medicine | Original Investigation | LESS IS MORE

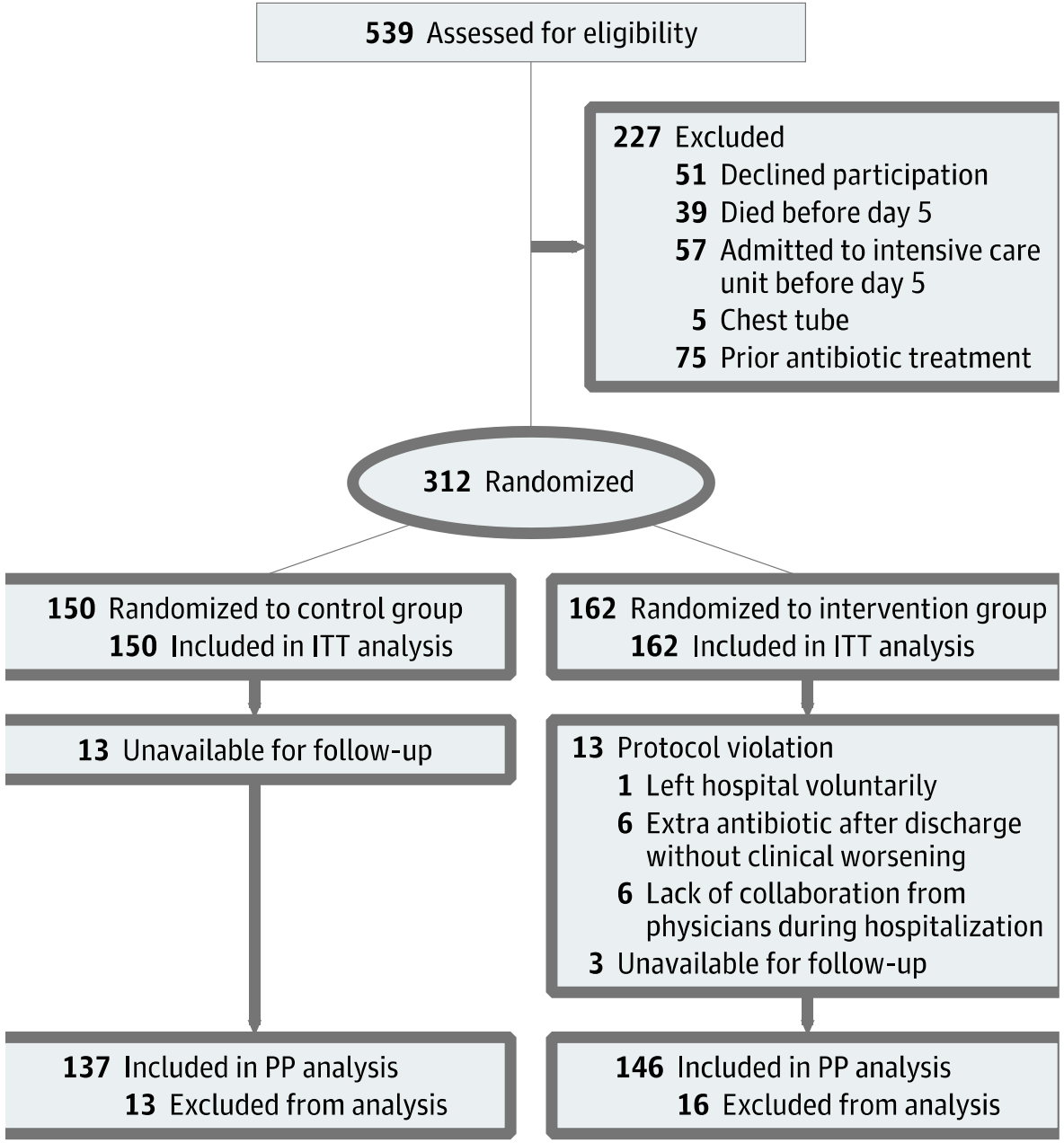
Duration of Antibiotic Treatment in Community-Acquired Pneumonia
A Multicenter Randomized Clinical Trial

Ane Uranga, MD; Pedro P. España, MD; Amaia Bilbao, MSc, PhD; Jose María Quintana, MD, PhD; Ignacio Arriaga, MD; Maider Intxausti, MD; Jose Luis Lobo, MD, PhD; Laura Tomás, MD; Jesus Camino, MD; Juan Nuñez, MD; Alberto Capelastegui, MD, PhD

- Essai de non infériorité
- Multicentrique (4 hôpitaux)
- 2012-2013
- 312 patients

- Randomisation à J5
  - Arrêt à 48h d'obtention des critères de stabilité
  - Arrêt selon clinicien en charge

- Objectif :
  - Guérison clinique J10 et J30
  - QdV CAP J5 et J10 (questionnaire 18 items : 0-90)



Uranga, JAMA Internal Medicine 2016

Table 1. Baseline Characteristics of Study Participants[a]

Characteristic	Control Group (n = 150)	Intervention Group (n = 162)
Age, mean (SD), y	66.2 (17.9)	64.7 (18.7)
Sex		
Male	95 (63.3)	101 (62.3)
Female	55 (36.7)	61 (37.7)
Tobacco		
Current smoker	32 (21.3)	36 (22.6)
Never smoker	68 (45.3)	71 (44.7)
Former smoker	50 (33.3)	52 (32.7)
Alcohol consumption (yes)	24 (16.1)	17 (10.5)
Comorbidities		
Liver disease	4 (2.7)	4 (2.5)
Heart disease	38 (25.3)	39 (24.1)
Congestive heart failure	14 (9.3)	12 (7.4)
Cerebrovascular disease	16 (10.7)	9 (5.6)
Renal disease	12 (8.0)	12 (7.4)
COPD	21 (14)	27 (16.7)
Diabetes	25 (16.7)	21 (13.0)
Charlson Comorbidity Index, median (IQR)	1 (0-2)	1 (0-2)
Charlson Comorbidity Index, categorized		
0	61 (40.7)	70 (43.2)
1	37 (24.7)	47 (29.0)
>1	52 (34.7)	45 (27.8)
Katz Index, mean (SD)[b]	0.6 (1.6)	0.4 (1.3)
PSI class		
I-III	89 (59.3)	102 (63.0)
IV-V	61 (40.7)	60 (37.0)
PSI score, mean (SD)	83.7 (33.7)	81.8 (33.8)

Eligibility

Patients ≥ 18 years old, hospitalized with a diagnosis of CAP. Pneumonia is defined as pulmonary infiltrate on chest X-ray not seen previously plus at least one symptom compatible with pneumonia such as cough, fever, dyspnea, and/or chest pain.

ATB :

- 80% des patients traités par FQ
- 10% beta lactamines +ML

Uranga, JAMA Internal Medicine 2016

OUTCOME

Table 2. Results for the Primary Study Outcomes

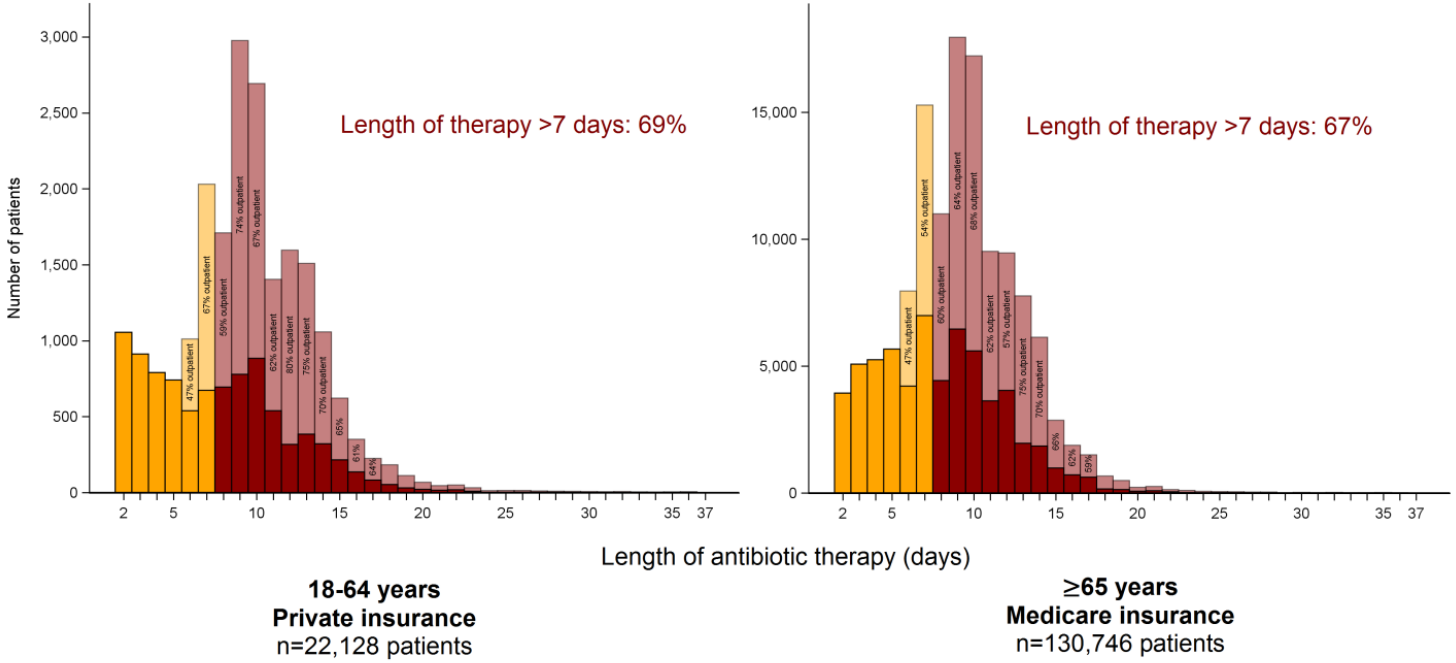
Outcome	Control Group	Intervention Group	*P* Value
:ent-to-Treat Analysis			
tal No. of participants	150	162	
nical success, No. (%)[a]			
At day 10	71 (48.6)	90 (56.3)	.18
At day 30	132 (88.6)	147 (91.9)	.33
.P symptom questionnaire score, mean (SD)[b]			
At day 5	24.7 (11.4)	27.2 (12.5)	.10
At day 10	18.6 (9.0)	17.9 (7.6)	.69
r-Protocol Analysis			
tal No. of participants	137	146	
nical success, No. (%)[a]			
At day 10	67 (50.4)	86 (59.7)	.12
At day 30	126 (92.7)	136 (94.4)	.54
.P symptom questionnaire score, mean (SD)[b]			
At day 5	24.3 (11.4)	26.6 (12.1)	.16
At day 10	18.1 (8.5)	17.6 (7.4)	.81

SUR LE TERRAIN

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 hopitaux)
- Durée moyenne 9,5j
- 70%>7j



Yi et al. CID 2017

AVANTAGES SUPPOSÉS À UN TRAITEMENT COURT

Diminution

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

Amélioration

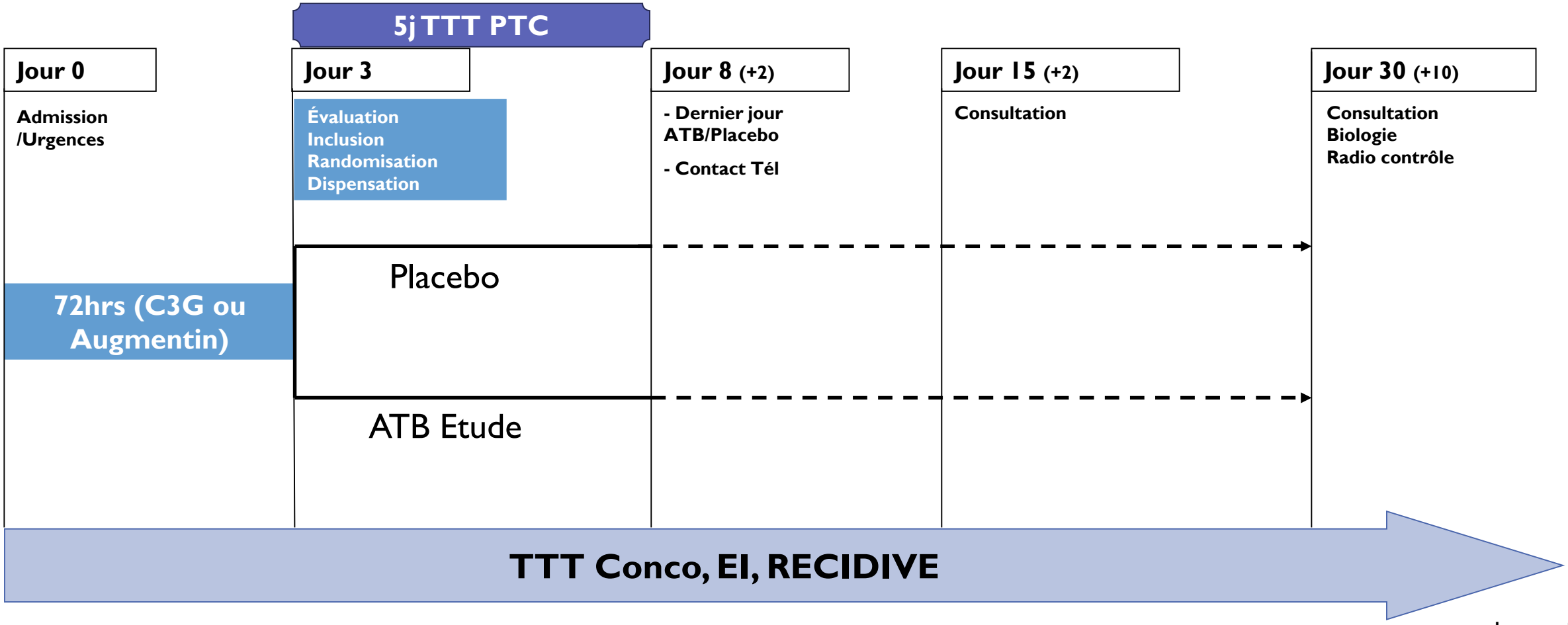
- Compliance
- Qualité de vie
- Satisfaction du patient

Meilleure efficacité ?

D'après Li JZ. Am Med J 2007

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



Lancet 2021

Dinh et al. Lancet 2021

POPULATION (1ÈRE INCLUSION 22 DÉCEMBRE 2013 - DERNIÈRE INCLUSION 2 FÉVRIER 2018)

	3 jours de traitement	8 jours de traitement
N patients	152	151
Hommes (n, %)	91 (60,6)	96 (62,7)
Age (médiane, IQR)	**72,5 [54,00 ; 85,25]**	**74,00 [58,00 ; 83,00]**
Comorbidités (n, %)		
Pathologie hépatique	5 (3,3)	2 (1,3)
Insuffisance cardiaque	31 (20,4)	33 (21,9)
Maladie vasculaire cérébrale	13 (8,5)	10 (6,7)
Insuffisance rénale	15 (9,9)	11 (7,3)
Insuffisance coronarienne	25 (16,1)	20 (13,1)
Diabète	24 (15,4)	34 (22,2)
BPCO	**31 (20,4)**	**40 (26,5)**
Tabagisme actif	**31 (20,4)**	**25 (16,6)**
PSI Score à J0 (médiane, IQR)	**80,50 [57,00 ; 103,00]**	**83,00 [58,00 ; 104,00]**
Paramètres biologiques à J0 (médiane, IQR)		
Hémoglobine (g/dL)	12,80 [11,90 ; 13,90]	13,10 [11,90 ; 14,30]
Leucocytes (G/L)	11,50 [8,05 ; 15,95]	11,78 [8,79 ; 15,30]
PNN (G/L)	**9,81 [6,57 ; 14,35]**	**9,68 [6,86 ; 12,90]**
Urée(mmol/L)	6,70 [4,80 ; 8,80]	5,90 [4,70 ; 8,30]
Glucose (mmol/L)	6,2 [5,40 ; 7,00]	6,20 [5,35 ; 7,75]
Créatinine (µmol/L)	78,00 [65,00 ; 100,00]	79,00 [63,00 ; 96,00]

EVOLUTION 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%]

Dinh et al. Lancet 2021

EVOLUTION 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%]

Dinh et al. Lancet 2021

CRITÈRES SECONDAIRES

	3 jours de traitement	8 jours de traitement	P-value
Mortalité (J30)	3/152 (1,9%)	2/151 (1,3%)	NS
N Patients avec > 1 événement indésirable	78/152 (51,3%)	82/151 (54,3%)	NS
N Patients avec > 1 événement indésirable grave	24/152 (15,8%)	17/151 (11,3%)	NS
Durée d'hospitalisation (jours) (médiane, IQR)	5 (4-9)	6 (4-9)	NS
Délai de reprise des activités quotidiennes (jours) (médiane, IQR)	15,0 (9,0-21,5)	15,5 (7-20)	NS

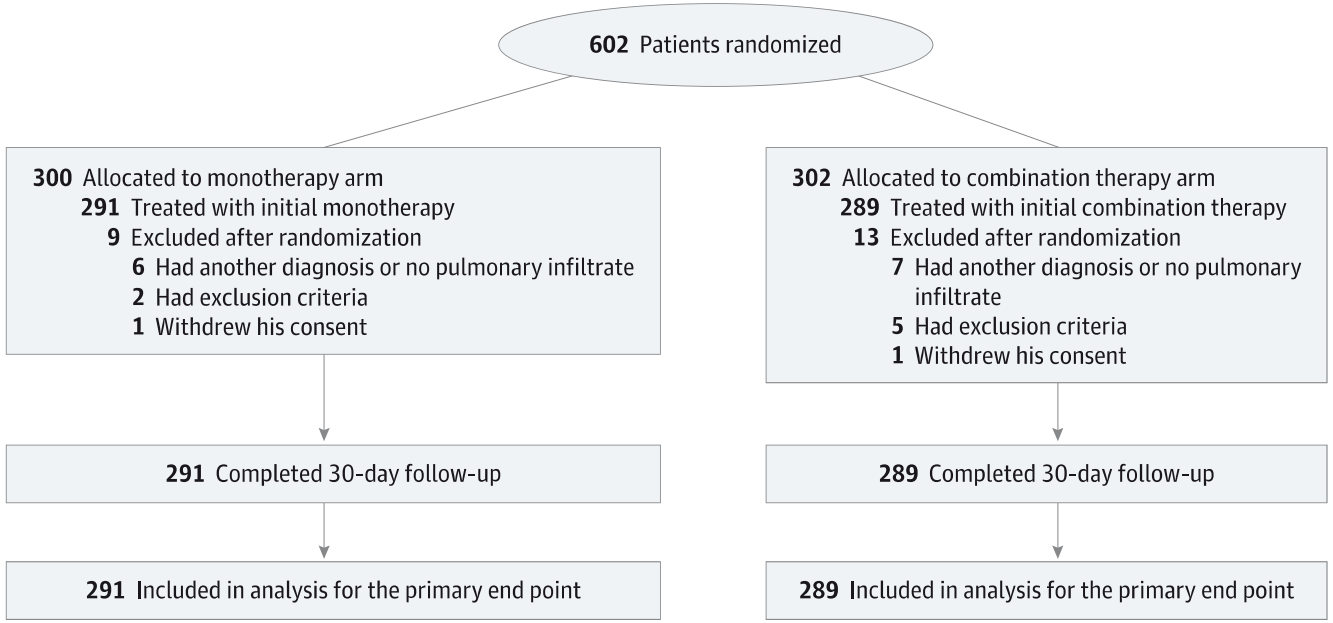
Dinh et al. Lancet 2021

MONO VERSUS BI THÉRAPIE

β-Lactam Monotherapy vs β-Lactam–Macrolide Combination Treatment in Moderately Severe Community-Acquired Pneumonia
A Randomized Noninferiority Trial

Nicolas Garin, MD; Daniel Genné, MD; Sebastian Carballo, MD, DPhil; Christian Chuard, MD; Gerhardt Eich, MD; Olivier Hugli, MD, MPH; Olivier Lamy, MD; Mathieu Nendaz, MD, MHPE; Pierre-Auguste Petignat, MD; Thomas Perneger, MD, PhD; Olivier Rutschmann, MD, MPH; Laurent Seravalli, MD; Stephan Harbarth, MD, MS; Arnaud Perrier, MD

- Essai randomisé ouvert multicentrique (6 centres)
- Non infériorité
- Evaluation en aveugle
- Suisse (2009-2013)
- 580 patients non ID
- Critère principal : stabilité à J7
- Suivi J90



Pas en réanimation !!
Pas ID !!

Garin N. et al. JAMA internal medicine 2014

Table 1. Patient Characteristics at Baseline[a]

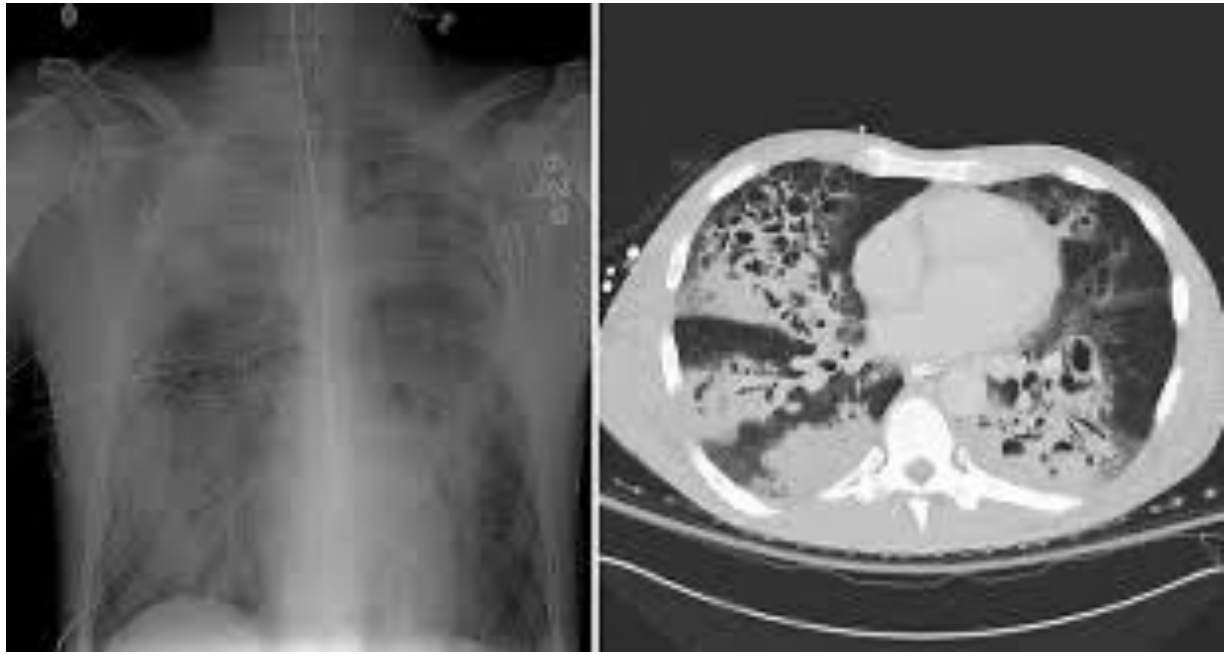
Characteristic	Monotherapy (n = 291)	Combination Therapy (n = 289)
Age, median (IQR), y	76 (63-84)	76 (64-83)
Male sex	162 (55.7)	171 (59.2)
Comorbidities, median (IQR)	1 (0-2)	1 (0-2)
Chronic heart failure	64 (22.0)	52 (18.0)
Chronic obstructive pulmonary disease	61 (21.0)	61 (21.1)
Diabetes mellitus	44 (15.1)	52 (18.0)
Chronic renal failure	47 (16.2)	41 (14.2)
PSI score, mean (SD)	84.5 (25.8)	84.2 (24.1)
PSI category		
I	31 (10.7)	23 (8.0)
II	50 (17.2)	55 (19.0)
III	83 (28.5)	98 (33.9)
IV	127 (43.6)	113 (39.1)
CURB-65 score ≥2	155 (53.3)	156 (54.0)
Heart rate, mean (SD), /min	100 (21)	97 (18)
Respiratory rate, mean (SD), /min	24.5 (6.2)	23.6 (5.8)
Temperature, mean (SD), °C	37.9 (1.0)	37.9 (1.0)
Hypoxemia[b]	206 (70.8)	219 (75.8)
Pleural effusion	46 (15.8)	51 (17.6)
White blood cells, mean (SD), /μL	13 400 (6300)	13 600 (6500)

Table 2. Primary and Secondary End Points[a]

End Point	Monotherapy (n = 291)	Combination Therapy (n = 289)	*P* Value
Primary end point			
Patients not reaching clinical stability at day 7[b]	120 (41.2)	97 (33.6)	.07
Secondary end points			
Intensive care unit admission	12 (4.1)	14 (4.8)	.68
Complicated pleural effusion[c]	8 (2.7)	14 (4.8)	.19
Length of stay, median (IQR), d	8 (6-13)	8 (6-12)	.65
Any change in the initial antibiotic treatment	39 (13.4)	46 (15.8)	.39
In-hospital death	8 (2.7)	7 (2.4)	.80
30-Day death	14 (4.8)	10 (3.4)	.42
90-Day death	24 (8.2)	20 (6.9)	.54
30-Day readmission	23 (7.9)	9 (3.1)	.01
90-Day readmission	47 (16.2)	37 (12.7)	.25
New pneumonia within 30 days[d]	10 (3.4)	6 (2.1)	.31

Garin N. et al. JAMA internal medicine 2014

PAC NÉCROSANTE/ SUSPICION PVL +



- Prélèvement (CNR)
- ATB : C3G + anti SARM + anti toxine
  - Linezolide
  - RFP
  - Clinda

PNEUMONIE D'INHALATION

Do Empiric Anti-Anaerobic Antibiotics for Patients Hospitalized With Community-Acquired Pneumonia (CAP) Make Sense?

STUDY DESIGN

Secondary analysis of an international, multicenter, study of adults hospitalized with CAP at 222 hospitals worldwide

2,606 PATIENTS STRATIFIED INTO 3 GROUPS:

Aspiration CAP (ACAP)	n=193
CAP in patients with aspiration risk factors (CAP/AspRF+)	n=1,709
CAP in patients without aspiration risk factors (CAP/AspRF-)	n=704

RESULTS

More than 90% of hospitalized patients with CAP have risk factors for aspiration

Hospitalized patients with ACAP, CAP/AspRF+ and CAP/AspRF- had **similar low prevalence of anaerobes** isolated from respiratory samples (0.5% vs. 0.3% vs. 0.0%, *P*=0.27)

>50% of patients in all groups independent of aspiration risk factors or ACAP received specific or broad-spectrum anti-anaerobic coverage antibiotics

The microbiological findings of this study do not support the routine use of anti-anaerobic antibiotic coverage.

Corral, et al. *CHEST* 2021;159(1):58-72

CHEST

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

Question 10: In the Inpatient Setting, Should Patients with Suspected Aspiration Pneumonia Receive Additional Anaerobic Coverage beyond Standard Empiric Treatment for CAP?

Recommendation. We suggest not routinely adding anaerobic coverage for suspected aspiration pneumonia unless lung abscess or empyema is suspected (conditional recommendation, very low quality of evidence).

Clinical Infectious Diseases

MAJOR ARTICLE

IDSA Infectious Diseases Society of America | hivma hiv medicine association | OXFORD

Prophylactic Antimicrobial Therapy for Acute Aspiration Pneumonitis

Vlad Dragan,[1] Yanliang Wei,[1] Marion Elligsen,[2] Alex Kiss,[3] Sandra A. N. Walker,[2,4] and Jerome A. Leis[1,3,5,6]

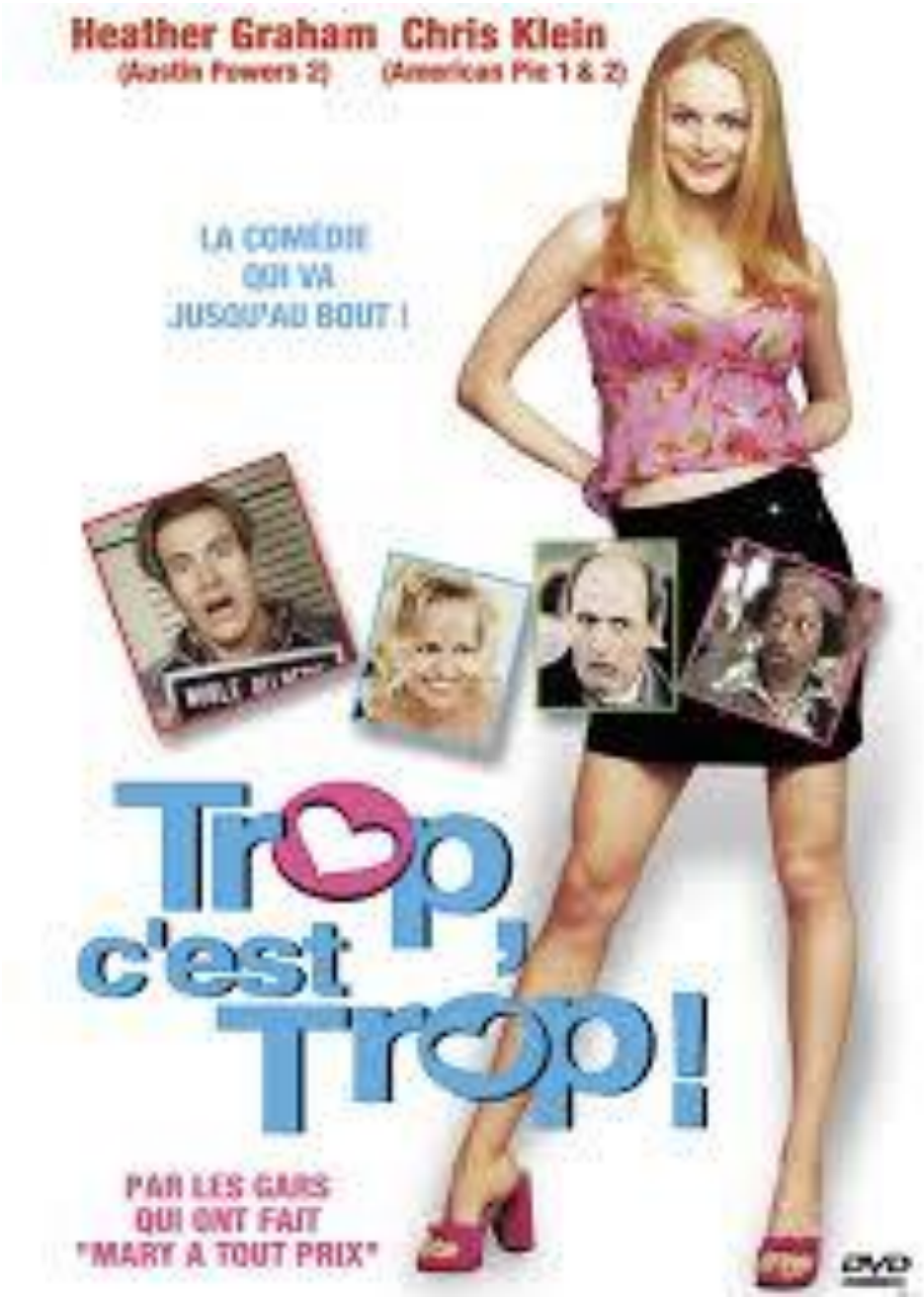
Outcome	Prophylactic Antimicrobial Therapy (%) n = 76	Supportive Care Only (%) n = 124	*P* Value
Primary outcome			
Unadjusted 30-day in-hospital mortality	19 (25)	31 (25)	1.0
Secondary outcomes (day 3 to 14)			
Transfer to critical care[a]	2 (5)	6 (6)	.7
Mean antibiotic-free days	7.5	10.9	**<.0001[b]**
Escalation of antimicrobial therapy	6 (8)	1 (1)	**.008[b]**
Multivariate analysis[c]			
Primary outcome			
Adjusted 30-day in-hospital mortality	0.85 (0.42–1.74)	…	.7

CID 2018

LA BITHÉRAPIE C'EST POUR QUI ?

- Choc septique
- Légionellose sévère
- Pneumonie à Staphylocoque PVL +

« LA SIMPLICITÉ EST LA SOPHISTICATION SUPRÊME » – LÉONARD DE VINCI


Heather Graham Chris Klein
(Austin Powers 2) (Americas Pie 1 & 2)
LA COMÉDIE
QUI VA
JUSQU'AU BOUT !
Trop, c'est Trop!
PAR LES GARS
QUI ONT FAIT
"MARY A TOUT PRIX"
DVD

VACCINER !

LE PLUS COURT DES TRAITEMENTS EST L'ABSENCE DE TRAITEMENT

BITHÉRAPIE POUR QUI ?