Best of
Infectiogériatrie 2022

GInGer

SOCIÉTÉ FRANÇAISE DE GÉRIATRIE & GÉRONTOLOGIE

SPILF

HOPITAUX DU PAYS DU MONT BLANC

7 décembre 2022

Alain Putot

UBFC
UNIVERSITÉ BOURGOGNE FRANCHE-COMTÉ

- Poumon
- Urine
- Microbiote
- Complications post-infectieuses

- Poumon

- Spectre étroit dans la pneumonie sans détresse respiratoire du patie non comorbide ?

Monsieur A.

- Patient de 72 ans, non comorbide, hospitalisé
- Pneumonie aigue communautaire
- Stable sous 02 2L/min

- **AMOXICILLINE**
- **AMOXICILLINE – ACIDE CLAV**
- **C3G**

THE LANCET
Infectious Diseases

Narrow-spectrum antibiotics for community-acquired pneumonia in Dutch adults (CAP-PACT): a cross-sectional, stepped-wedge, cluster-randomised, non-inferiority, antimicrobial stewardship intervention trial

V A Schweitzer, Lancet Infect Dis, 2021

-Essai randomisé en cluster (unité = hopital)

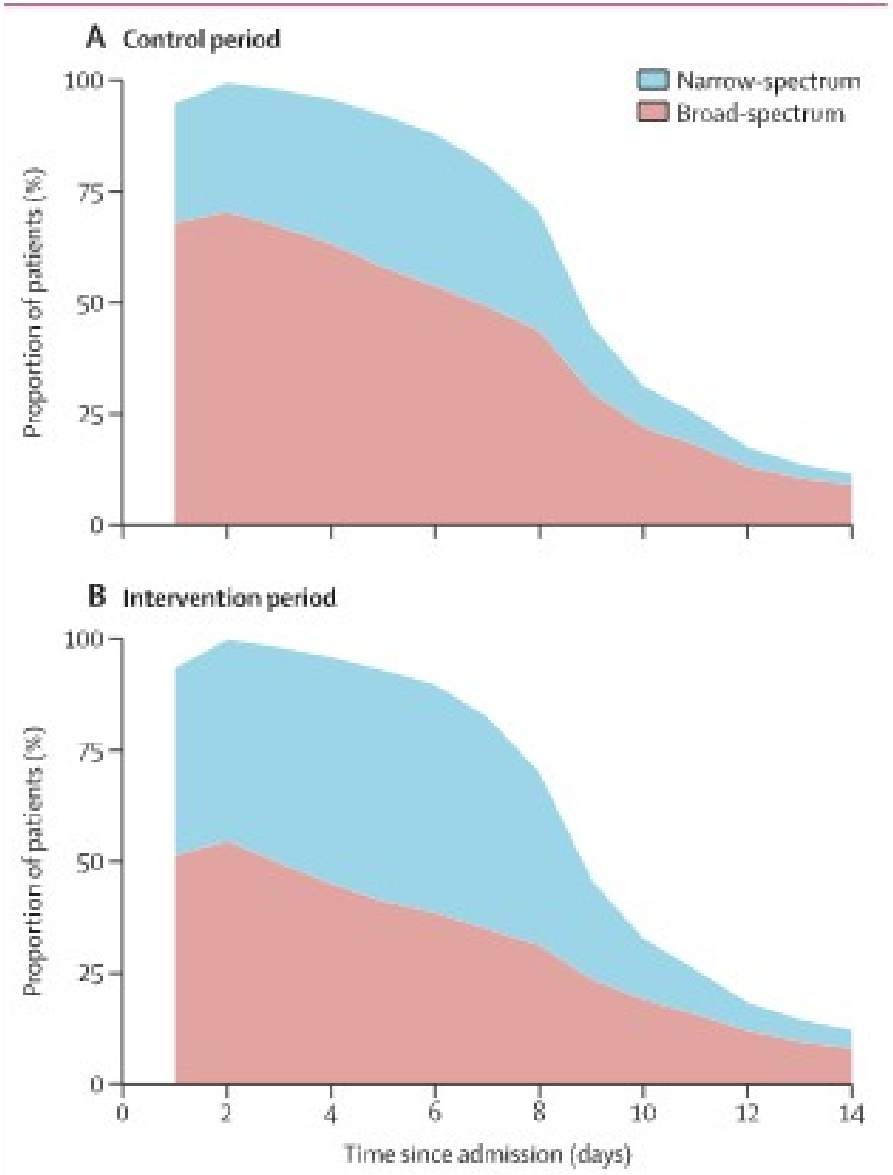
-12 hôpitaux des Pays Bas, -5600 patients
-Patients d'EHPAD exclus

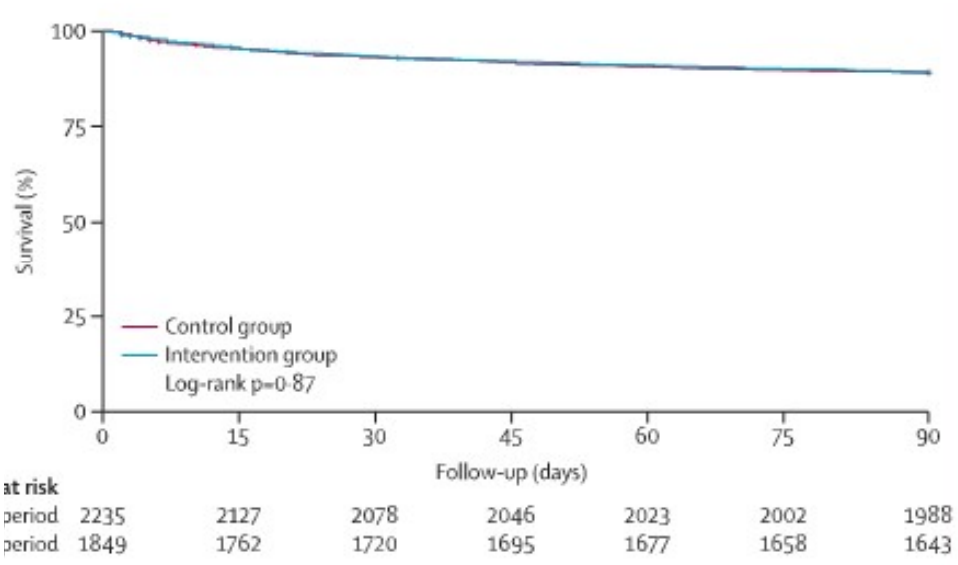
-Pneumonies non sévères

-Intervention : éducation, audit, feedback, implication de leaders

-spectre étroit = Amox, péni G, doxy

	Hospitalised in control period (n=2235)	Hospitalised in intervention period (n=1849)
Age, years	73 (63–81)	74 (64–82)
Medical speciality admitted to		
Internal medicine	416 (18·6%)	349 (18·9%)
Pulmonology	1731 (77·4%)	1426 (77·1%)
Other	88 (3·9%)	74 (4·0%)
Comorbidities		
COPD or asthma	962 (43·0%)	880 (47·6%)
Cardiovascular disease	300 (13·4%)	259 (14·0%)
Diabetes	389 (17·4%)	315 (17·0%)
Malignancy	239 (10·7%)	185 (10·0%)
Pneumonia severity index score	89 (70–112)	91 (72–113)
Risk class I	101 (4·5%)	73 (3·9%)
Risk class II	473 (21·2%)	357 (19·3%)
Risk class III	581 (26·0%)	493 (26·7%)
Risk class IV	823 (36·8%)	722 (39·0%)
Risk class V	257 (11·5%)	204 (11·0%)
CURB-65 score	2 (1–2)	2 (1–2)
Radiologically confirmed disease	1689 (75·6%)	1377 (74·5%)





at risk

period	2235	2127	2078	2046	2023	2002	1988
period	1849	1762	1720	1695	1677	1658	1643

- Une couverture anti-anaérobies est-elle justifiée dans les pneumonies d'inhalation ?

Madame B.

- Patiente de 80 ans, en EHPAD
- Maladie de Parkinson

- Pneumonie d'inhalation suspectée, radiologiquement confirmée

- **AMOXICILLINE**
- **AMOXICILLINE – ACIDE CLAV**
- **AMOXICILLINE – ACIDE CLAV - METRONIDAZOLE**
- **C3G**
- **C3G - METRONIDAZOLE**

Aspiration Risk Factors, Microbiology, and Empiric Antibiotics for Patients Hospitalized With Community-Acquired Pneumonia

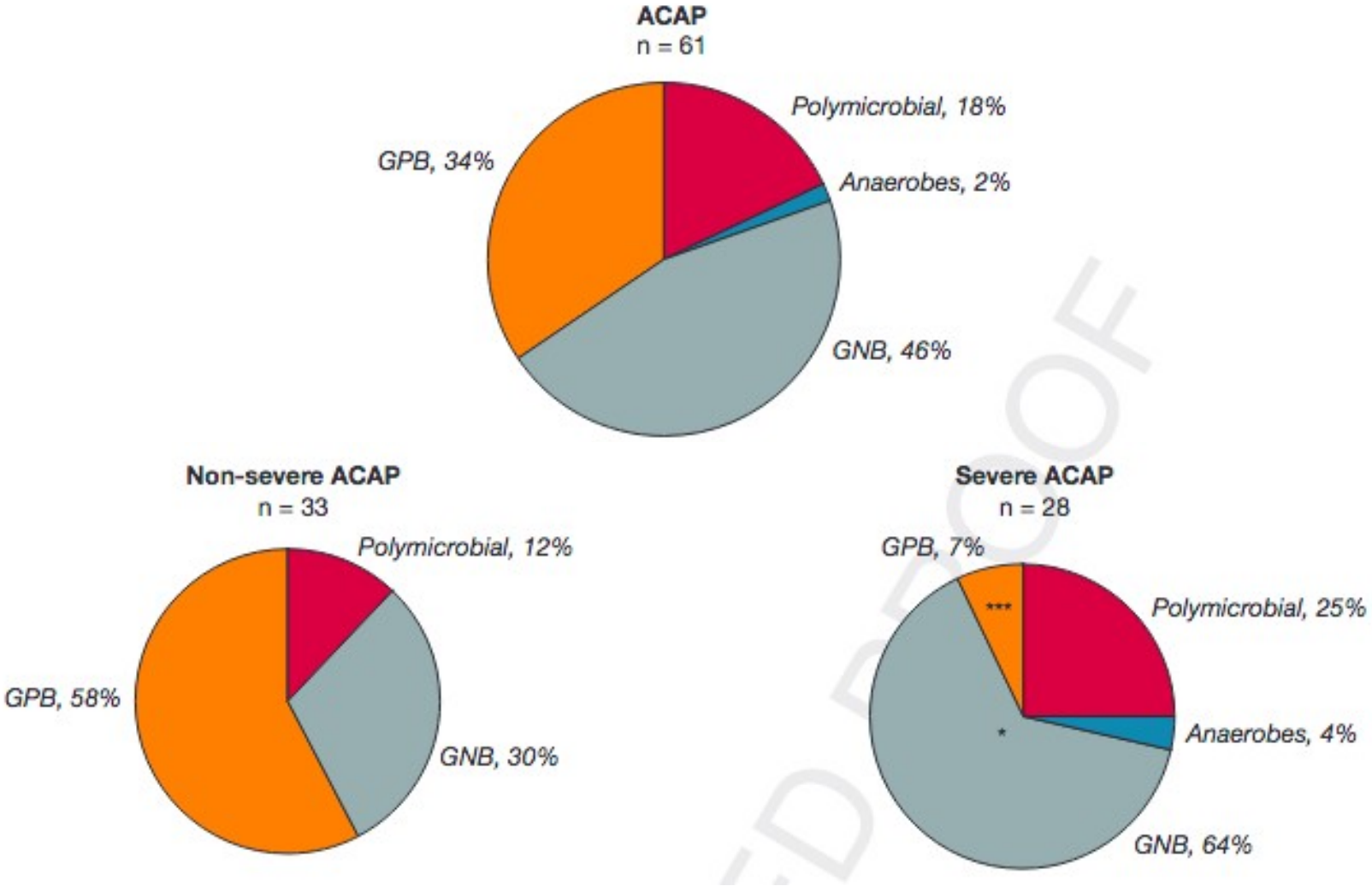
CHEST

J Marin-Corral, Chest 2021

-Etude internationale multicentrique
-222 hopitaux
- Documentation radiologique et microbiologique systématique

-2606 PAC

Inhalation authentifiée n= 193
Facteurs de risque d'inhalation n= 1709
Aucun facteur de risque n = 704


ACAP
n = 61
Polymicrobial, 18%
Anaerobes, 2%
GNB, 46%
GPB, 34%
Non-severe ACAP
n = 33
Polymicrobial, 12%
GNB, 30%
GPB, 58%
Severe ACAP
n = 28
GPB, 7%
***
Polymicrobial, 25%
*
Anaerobes, 4%
GNB, 64%

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

J Marin-Corral, Chest 2021

RESULTS

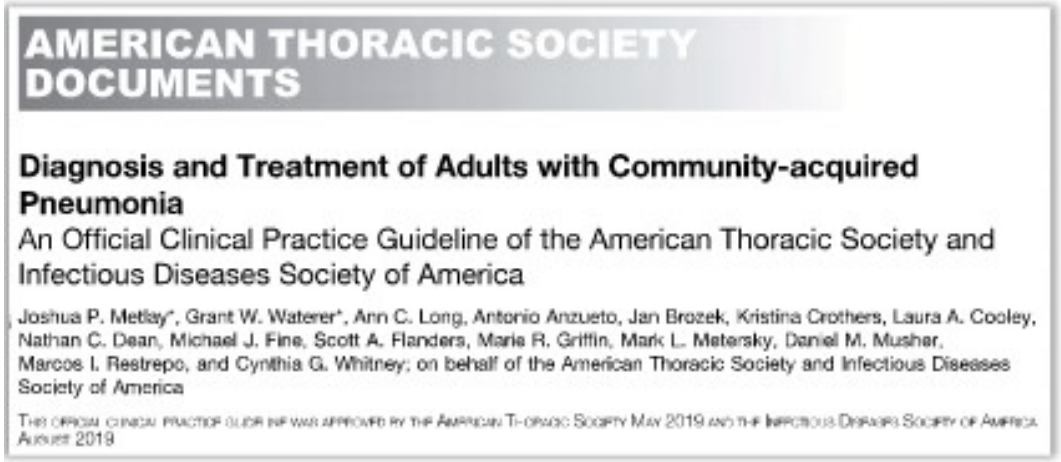
More than 90% of hospitalized patients with CAP have risk factors for aspiration

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.

Metronidazole should be reserved for infections caused by the *Bacteroides fragilis* group, particularly when the infection is originated **below the diaphragm**.



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

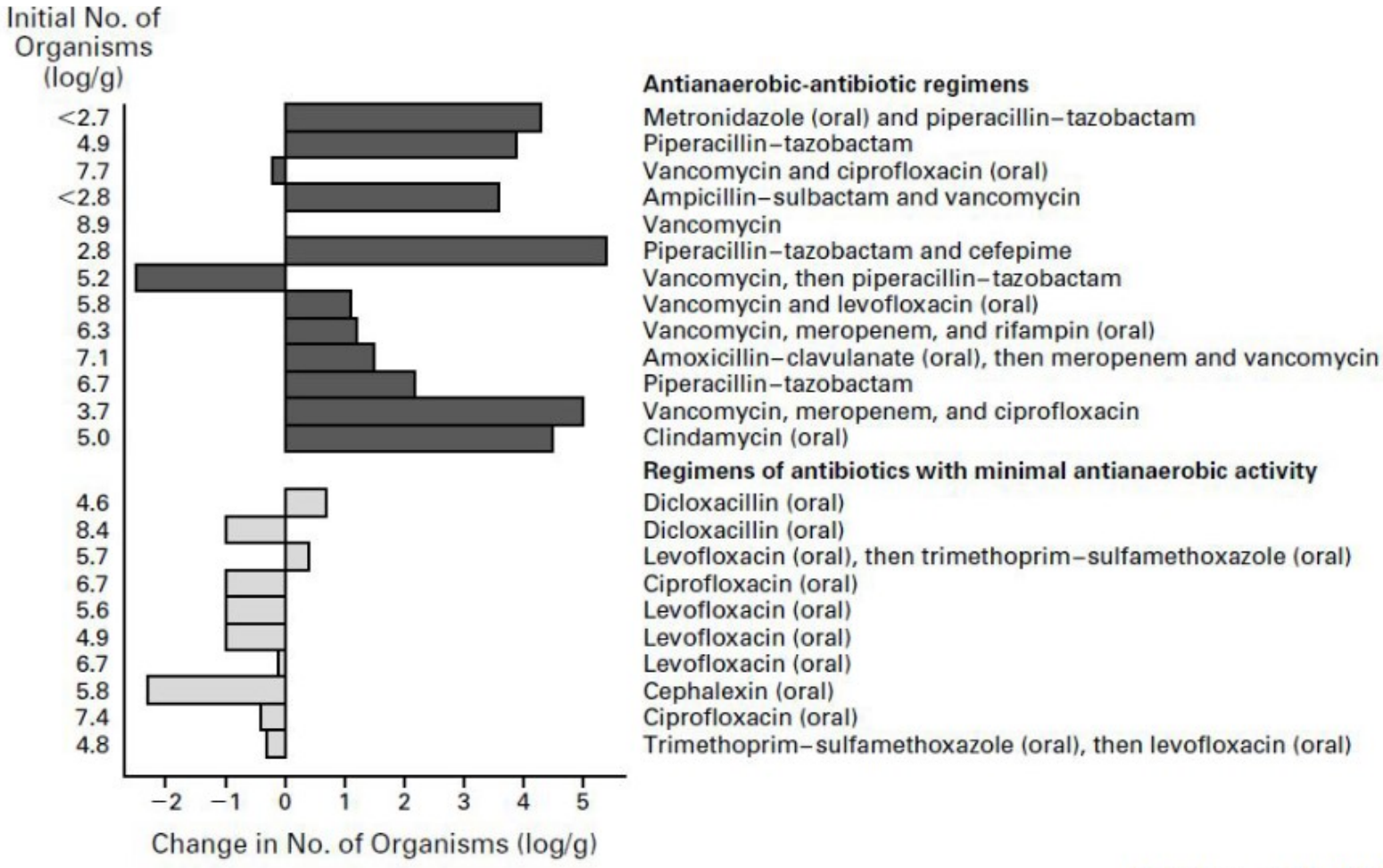
Joshua P. Metlay*, Grant W. Waterer*, Ann C. Long, Antonio Anzueto, Jan Brozek, Kristina Crothers, Laura A. Cooley, Nathan C. Dean, Michael J. Fine, Scott A. Flanders, Maria R. Griffin, Mark L. Metersky, Daniel M. Musher, Marcos I. Restrepo, and Cynthia G. Whitney; on behalf of the American Thoracic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

L'impact sur le microbiote dépend de l'activité anti anaérobies (VRE)



Donskey *et al.*, NEJM 2000

- Alimentation et pneumonie d’inhalation

Monsieur M.

- Patient de 88 ans, maladie d'Alzheimer évoluée
- Confiné lit fauteuil depuis 1 mois
- IMC 16 – Perte de poids de 5kg en 3 mois
- Escarre sacrée
- Fausses routes

- **Alimentation orale ou SNG ?**

JAMDA 23 (2022) 1541–1547

JAMDA

journal homepage: www.jamda.com

Original Study

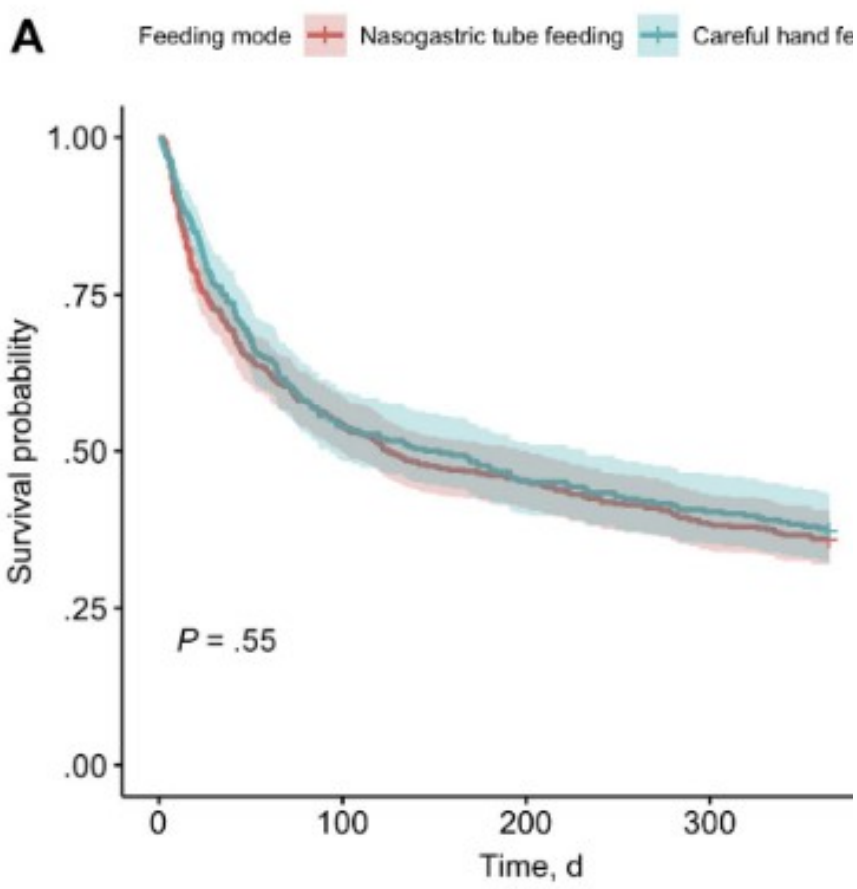
Reduced Pneumonia Risk in Advanced Dementia Patients on Careful Hand Feeding Compared With Nasogastric Tube Feeding

Jacqueline K. Yuen MD [a,*], James K.H. Luk MBBS, MSc [b], Tuen-Ching Chan MBBS, MPH, MD [b], Yat-Fung Shea MBBS [b], Steven T. Chu MPhil [a], Rachelle Bernacki MD, MS [c], David T.Y. Chow MSc [d], Felix H.W. Chan MBBCh, MSc [b]

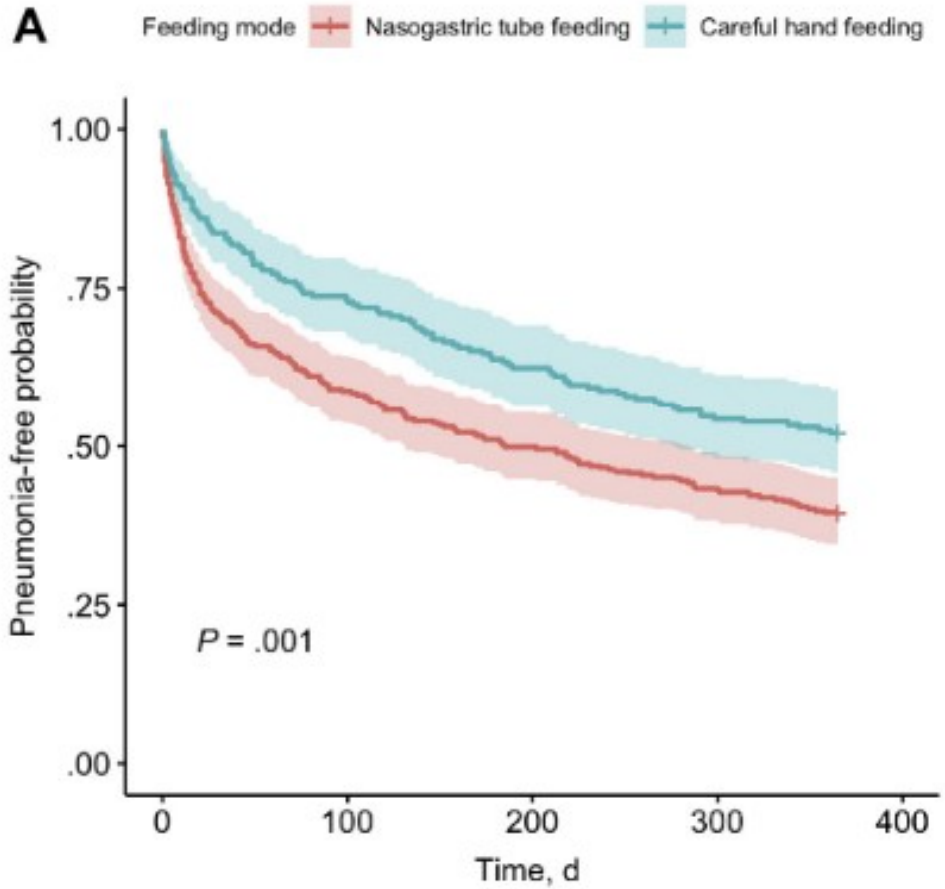
[a] *Division of Geriatrics, LKS Faculty of Medicine, The University of Hong Kong, Hong Kong SAR, China*
[b] *Department of Medicine and Geriatrics, TWGHs Fung Yiu King Hospital, Hong Kong SAR, China*
[c] *Department of Psychosocial Oncology and Palliative Care, Dana-Farber Cancer Institute, Boston, MA, USA*
[d] *Department of Speech Therapy, TWGHs Fung Yiu King Hospital and Grantham Hospital, Hong Kong SAR, China*

Characteristic	SNG (n = 464)	Orale (n = 300)	Total (N = 764)	P Value
Place of residence				.78
Residential care home	346 (74.6)	221 (73.7)	567 (74.2)	
Home	118 (25.4)	79 (26.3)	197 (25.8)	
Feeding problem				<.001
Behavioral	97 (20.9)	155 (51.7)	252 (33.0)	
Dysphagia	274 (59.1)	111 (37.0)	385 (50.4)	
Both	93 (20.0)	34 (11.3)	127 (16.6)	
Severity of dysphagia				<.001
Mild	41 (9.3)	49 (17.3)	90 (12.4)	
Mild-moderate	18 (4.1)	32 (11.3)	50 (6.9)	
Moderate	110 (24.9)	82 (29.0)	192 (26.5)	
Moderate-severe	80 (18.1)	32 (11.3)	112 (15.4)	
Severe	193 (43.7)	88 (31.1)	281 (38.8)	
Aspiration pneumonia	270 (64.6)	148 (35.4)	418 (54.9)	.02
Body mass index, mean (SD)	18.6 (3.7)	18.9 (4.2)	18.7 (3.9)	.27
Albumin, g/dL, mean (SD)	28.2 (6.1)	28.4 (6.2)	28.3 (6.1)	.68
Lymphocyte, 10^9 cells/L, mean (SD)	1.1 (0.6)	1.2 (1.2)	1.2 (0.9)	.28
Active pressure injury	244 (52.7)	151 (50.3)	395 (51.8)	.52

Survie



Pneumonie



Monsieur M.

- Pneumonie d'inhalation documentée
- Fausses routes répétées
- Apport oral nul
- Mycose oesophagienne suspectée

- **Alimentation orale ? Entérale ? Parentérale ?**

THE GERONTOLOGICAL SOCIETY OF AMERICA®

Journals of Gerontology: Medical Sciences
cite as: *J Gerontol A Biol Sci Med Sci*, 2022, Vol. 77, No. 8, 1683–1690
https://doi.org/10.1093/gerona/glab306
Advance Access publication October 9, 2021

OXFORD

Research Article

Effect of Parenteral Energy or Amino Acid Doses on In-Hospital Mortality Among Patients With Aspiration Pneumonia: A Cohort Medical Claims Database Study

Keisuke Maeda, MD, PhD,[1,*] Kenta Murotani, PhD,[2] Satoru Kamoshita, BA,[3] Yuri Horikoshi, MS,[3] and Akiyoshi Kuroda, PhD[4]

[1]Department of Geriatric Medicine, National Center for Geriatrics and Gerontology, Obu-shi, Japan. [2]Biostatistics Center, Kurume University Graduate School of Medicine, Kurume, Japan. [3]Medical Affairs Department, Research and Development Center, Otsuka Pharmaceutical Factory, Inc., Chiyoda-ku, Japan. [4]Research and Development Center, Otsuka Pharmaceutical Factory, Inc., Chiyoda-ku, Japan.

Hospitalized patients aged ≥65 years
with a diagnosis record of aspiration pneumonia
and >7-days NPO status
between January 2013 and December 2018
(n=26,737)

Excluded (n=6,310)
- Height <100 cm or ≥200 cm (n=4,888)
- Body weight <10 kg or ≥200 kg (n=4,171)
- Missing height or body weight data (n=2)
- Prescribed energy 0 kcal on Days 1 to 7 (n=834)

Target population
(n=20,457)

No dose
(n=7,795)

Very low dose
(n=4,809)

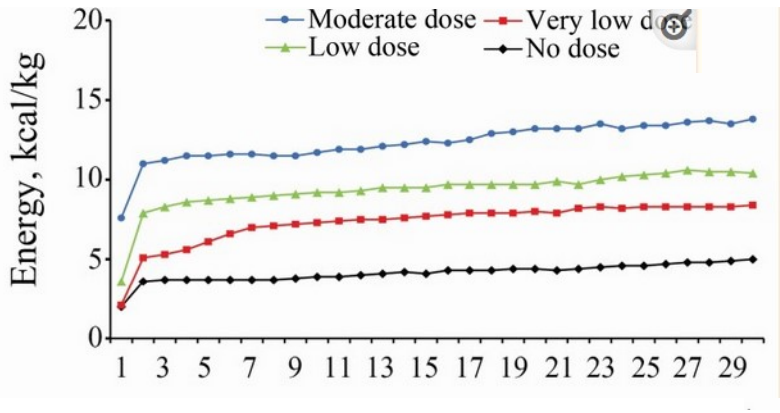
Low dose
(n=5,791)

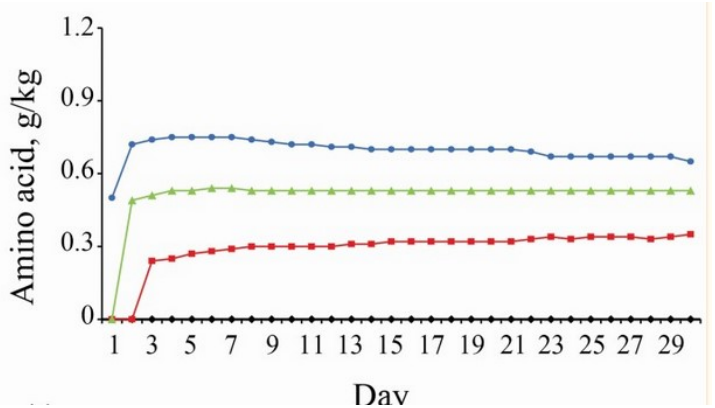
Moderate dose
(n=2,062)

Figure 1. Patient flow. NPO = nil per os.

Table 1. Patient Characteristics

			Amino Acid				
		Total	No Dose*	Very Low Dose*	Low Dose*	Moderate Dose*	
		n = 20 457	*n* = 7 795	*n* = 4 809	*n* = 5 791	*n* = 2 062	*p*†
Age, years	65–69	697 (3.4)	225 (2.9)	177 (3.7)	205 (3.5)	90 (4.4)	<.001
	70–79	3 752 (18.3)	1 263 (16.2)	925 (19.2)	1 179 (20.4)	385 (18.7)	
	80–89	9 855 (48.2)	3 735 (47.9)	2 338 (48.6)	2 844 (49.1)	938 (45.5)	
	≥90	6 153 (30.1)	2 572 (33.0)	1 369 (28.5)	1 563 (27.0)	649 (31.5)	
Sex	Male	11 247 (55.0)	4 107 (52.7)	2 952 (61.4)	3 337 (57.6)	851 (41.3)	<.001
	Female	9 210 (45.0)	3 688 (47.3)	1 857 (38.6)	2 454 (42.4)	1 211 (58.7)	
Body mass index, kg/m²	<16	5 067 (24.8)	1 779 (22.8)	1 230 (25.6)	1 538 (26.6)	520 (25.2)	<.001
	16–18.5	5 714 (27.9)	2 173 (27.9)	1 326 (27.6)	1 628 (28.1)	587 (28.5)	
	18.5–22.5	6 925 (33.9)	2 727 (35.0)	1 636 (34.0)	1 880 (32.5)	682 (33.1)	
	22.5–25	1 829 (8.9)	714 (9.2)	422 (8.8)	511 (8.8)	182 (8.8)	
	≥25	922 (4.5)	402 (5.2)	195 (4.1)	234 (4.0)	91 (4.4)	
Barthel Index	100	483 (2.4)	176 (2.3)	112 (2.3)	143 (2.5)	52 (2.5)	<.001
	65–95	270 (1.3)	76 (1.0)	70 (1.5)	92 (1.6)	32 (1.6)	
	45–60	561 (2.7)	194 (2.5)	133 (2.8)	177 (3.1)	57 (2.8)	
	25–40	469 (2.3)	180 (2.3)	116 (2.4)	130 (2.2)	43 (2.1)	
	5–20	1 915 (9.4)	737 (9.5)	482 (10.0)	521 (9.0)	175 (8.5)	
	0	14 283 (69.8)	5 558 (71.3)	3 329 (69.2)	3 997 (69.0)	1 399 (67.8)	
Intensive care unit admission‡	Yes	1 627 (8.0)	661 (8.5)	400 (8.3)	441 (7.6)	125 (6.1)	<.01
Charlson Comorbidity	0	10 008 (48.9)	3 732 (47.9)	2 362 (49.1)	2 912 (50.3)	1 002 (48.6)	<.001
Index	1–2	7 959 (38.9)	3 043 (39.0)	1 851 (38.5)	2 233 (38.6)	832 (40.3)	
	≥3	2 490 (12.2)	1 020 (13.1)	596 (12.4)	646 (11.2)	228 (11.1)	
Dementia		5 153 (25.2)	2 000 (25.7)	1 181 (24.6)	1 436 (24.8)	536 (26.0)	.376
Parkinson's disease		1 347 (6.6)	505 (6.5)	314 (6.5)	400 (6.9)	128 (6.2)	.654
Cancer		2 049 (10.0)	742 (9.5)	492 (10.2)	583 (10.1)	232 (11.3)	.117





(A)	Amino acid				
	No Dose*	Very Low Dose*	Low Dose*	Moderate Dose*	
Prognosis	*n* = 7 795	*n* = 4 809	*n* = 5 791	*n* = 2 062	*p*
In-hospital mortality, *n* (%)	2 554 (32.8)	1 350 (28.1)	1 521 (26.3)	495 (24.0)	<.001†
Inability to receive full oral intake, *n* (%)‡,§	2 028 (38.7)	1 178 (34.1)	1 373 (32.2)	473 (30.2)	<.001†
Readmission, *n* (%)§	310 (5.9)	242 (7.0)	222 (5.2)	71 (4.5)	<.001†
Length of hospital stay, median (Q1–Q3)§	33 (22–50)	35 (24–55)	35 (24–54)	32 (22–50)	<.001‖

(B)					
Prognosis	Odds Ratio or Estimates (95% CI), Adjusted¶				
In-hospital mortality	Reference	0.78 (0.72 to 0.85)	0.74 (0.67 to 0.82)	0.69 (0.59 to 0.81)	—
Inability to receive full oral intake‡,§	Reference	0.94 (0.85 to 1.04)	0.94 (0.84 to 1.05)	0.88 (0.74 to 1.05)	—
Readmission§	Reference	1.19 (0.99 to 1.44)	0.89 (0.71 to 1.11)	0.84 (0.58 to 1.22)	—
Length of hospital stay§	Reference	1.31 (−0.25 to 2.87)	−0.25 (−2.02 to 1.52)	−4.53 (−7.30 to −1.76)	—

DOI: 10.1111/jgs.17991

CLINICAL INVESTIGATION

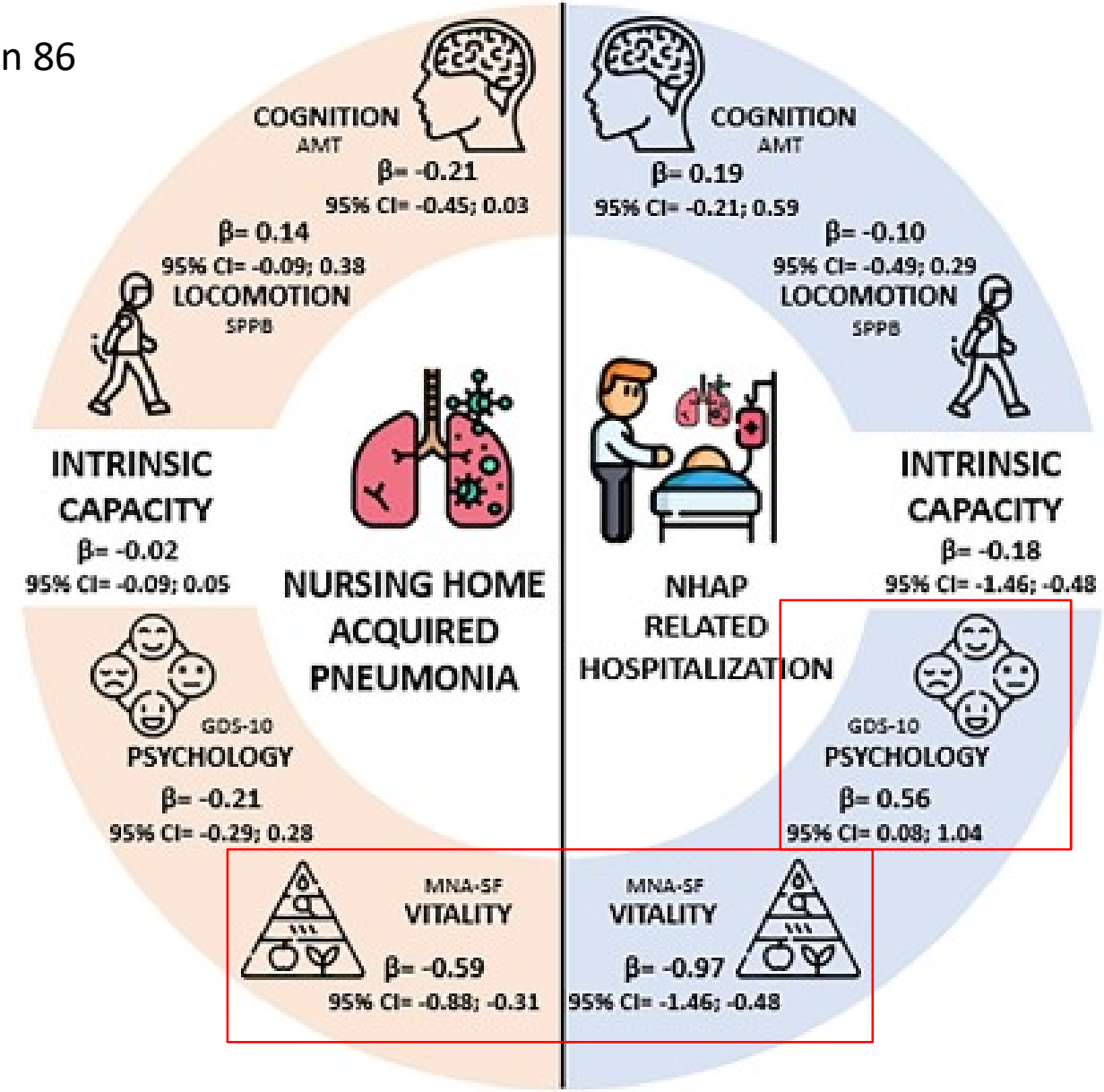
Journal of the
American Geriatrics Society

Impact of nursing home-acquired pneumonia on the domains of the novel construct of intrinsic capacity: the INCUR study

Juan Luis Sánchez-Sánchez PhD[1] | Yves Rolland MD[1,2] | Matteo Cesari MD[3] | Philipe de Souto Barreto PhD[1,2]

- Cohorte INCUR de résidents d'EHPAD (n = 754, age moyen 86 ans)

- 161 (21.4%) présentent une NHAP, et 46 (28.6%) sont hospitalisés.



- Urine

Monsieur U.

- Patient de 72 ans
- ATCD: DNID, prostatite
- Brûlures mictionelles aigues isolées
- Afébrile
- ECBU + à *E. coli*

- **Antibiothérapie 7j ou 14j ?**

Original Investigation

July 27, 2021

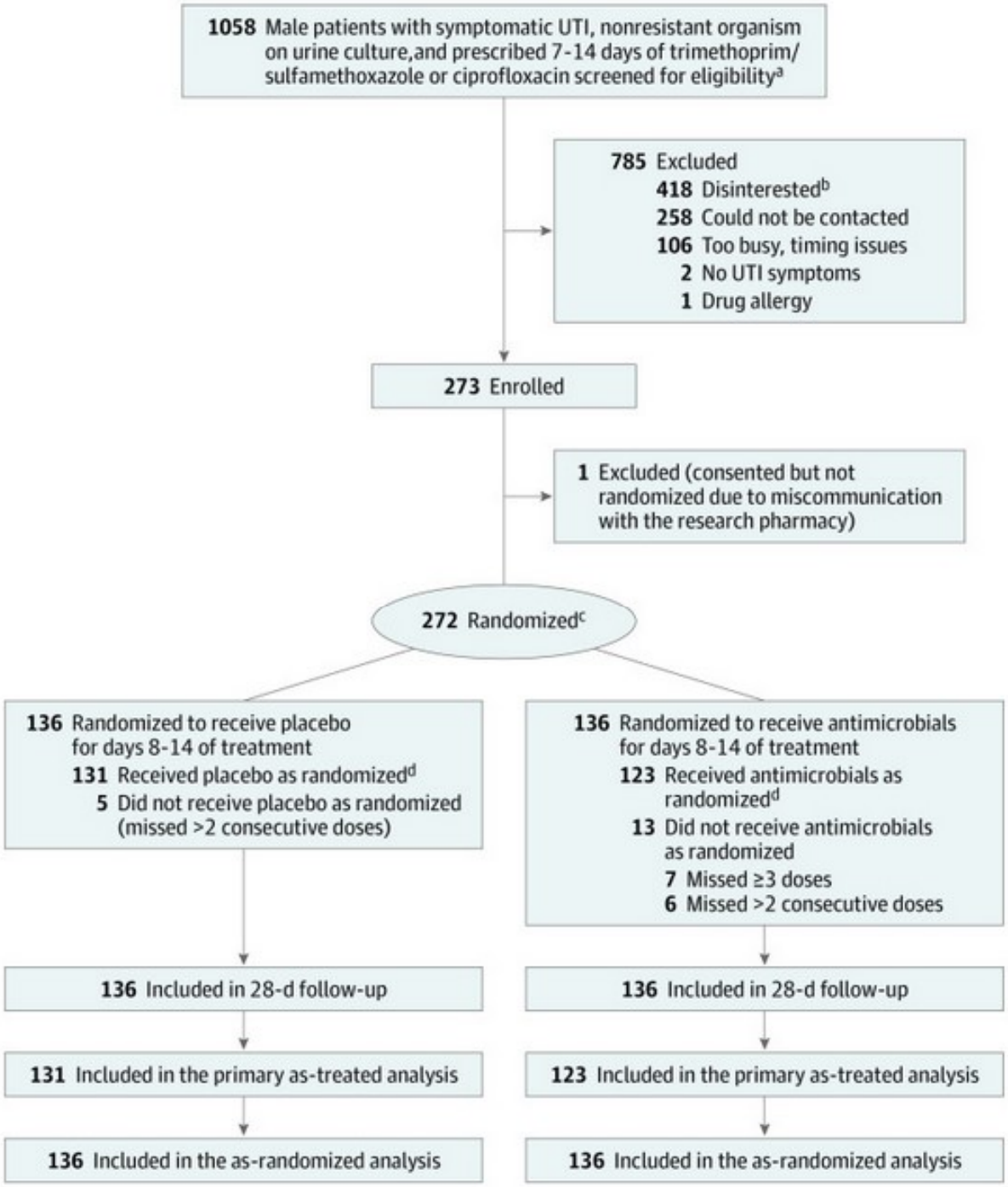
Effect of 7 vs 14 Days of Antibiotic Therapy on Resolution of Symptoms Among Afebrile Men With Urinary Tract Infection

A Randomized Clinical Trial

Dimitri M. Drekonja, MD, MS[1,2]; Barbara Trautner, MD, PhD[3,4]; Carla Amundson, MA[1]; et al

» Author Affiliations | Article Information

JAMA. 2021;326(4):324-331. doi:10.1001/jama.2021.9899


1058 Male patients with symptomatic UTI, nonresistant organism on urine culture,and prescribed 7-14 days of trimethoprim/ sulfamethoxazole or ciprofloxacin screened for eligibility[a]
785 Excluded
418 Disinterested[b]
258 Could not be contacted
106 Too busy, timing issues
2 No UTI symptoms
1 Drug allergy
273 Enrolled
1 Excluded (consented but not randomized due to miscommunication with the research pharmacy)
272 Randomized[c]
136 Randomized to receive placebo for days 8-14 of treatment
131 Received placebo as randomized[d]
5 Did not receive placebo as randomized (missed >2 consecutive doses)
136 Randomized to receive antimicrobials for days 8-14 of treatment
123 Received antimicrobials as randomized[d]
13 Did not receive antimicrobials as randomized
7 Missed ≥3 doses
6 Missed >2 consecutive doses
136 Included in 28-d follow-up
136 Included in 28-d follow-up
131 Included in the primary as-treated analysis
123 Included in the primary as-treated analysis
136 Included in the as-randomized analysis
136 Included in the as-randomized analysis

Baseline Demographics and Comorbid Conditions[a]

Variable	7-Day antimicrobial + 7-day placebo group (n = 136)[b,c]	14-Day antimicrobial group (n = 136)[c]
Age, median (IQR), y	70 (62-73)	70 (62-75)
Charlson comorbidity index, median (IQR)[g]	1 (0-2)	1 (0-2)
Diabetes	46 (34)	60 (44)
Cerebrovascular accident	13 (10)	5 (4)
Chronic kidney disease	8 (6)	14 (10)
Spinal cord injury	5 (4)	6 (4)
HIV	2 (1)	2 (1)

Baseline Demographics and Comorbid Conditions[a]

Variable	7-Day antimicrobial + 7-day placebo group (n = 136)[b,c]	14-Day antimicrobial group (n = 136)[c]
Any prior UTI	84 (62)	78 (57)
Prostatic hypertrophy	56 (41)	47 (35)
Urinary incontinence	44 (32)	52 (38)
Intermittent catheter use	24 (18)	23 (17)
Prostate cancer	21 (15)	23 (17)
Urethral stricture	17 (13)	16 (12)
Prior prostatitis	16 (12)	18 (13)
Indwelling catheter use	8 (6)	8 (6)
Most common symptoms associated with UTI diagnosis	(n = 136)	(n = 136)
Dysuria	93 (68)	88 (65)
Frequency	80 (59)	70 (51)
Urgency	52 (39)	39 (29)

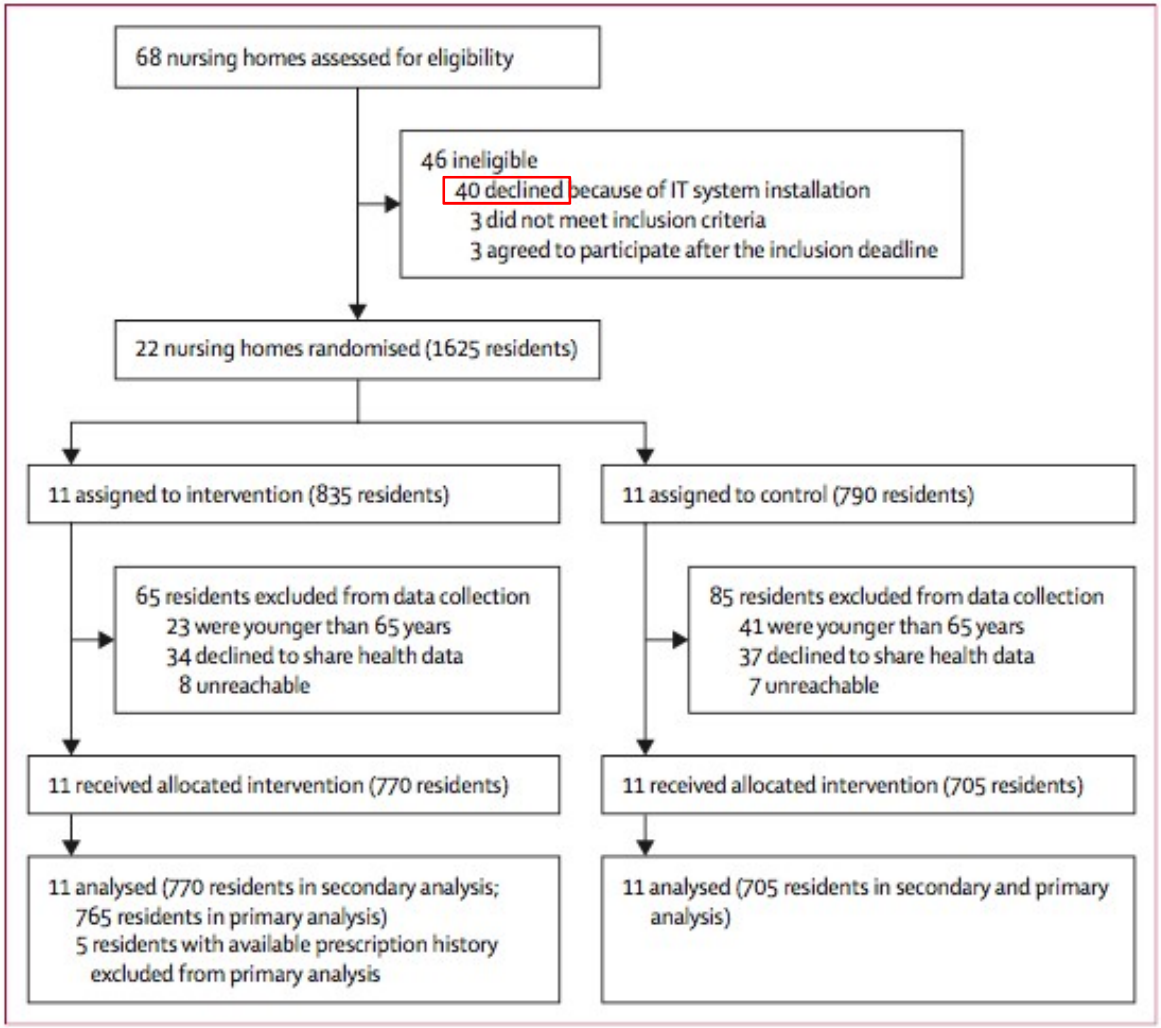
Characteristic	No./total No. (%)		Absolute difference, % (1-sided 97.5% CI)[a]
Resolution of UTI symptoms 14 days after stopping active antimicrobials	**7-Day antimicrobial + 7-day placebo group**	**14-Day antimicrobial group**	
As-treated population (primary analysis)	122/131 (93.1)	111/123 (90.2)	2.9 (–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)

- Impact du stewartship en EHPAD:
- Et si on ciblait les soignants ?

Effectiveness of a tailored intervention to reduce antibiotics for urinary tract infections in nursing home residents: a cluster, randomised controlled trial

Sif Helene Arnold, Jette Nygaard Jensen, Lars Bjerrum, Volkert Siersma, Christine Winther Bang, Marius Brostrøm Kousgaard, Anne Holm

Lancet Infect Dis 2021



	Total	Intervention group	Control group
Nursing homes	22 (100·0%)	11 (50·0%)	11 (50·0%)
Average duration a bed was occupied, days	109 (1–121)	109 (2–121)	110 (1–121)
Large nursing homes (>70 resident beds)	8 (36·4%)	4 (36·4%)	4 (36·4%)
Living spaces for dementia	169 (11·5%)	49 (6·4%)	120 (17·0%)
Public owner status	20 (90·9%)	9 (81·8%)	11 (100·0%)
Availability of urinary dipsticks for screening	20 (90·9%)	10 (90·9%)	10 (90·9%)
Affiliated nursing home physician	16 (72·7%)	10 (90·9%)	6 (54·6%)
Number of residents*	1475 (100·0%)	770 (52·2%)	705 (47·8%)
Age, years			
65–74	224 (15·2%)	114 (14·8%)	110 (15·6%)
75–84	481 (32·6%)	223 (29·0%)	258 (36·6%)
85–94	609 (41·3%)	341 (44·3%)	268 (38·0%)
>94	161 (10·9%)	92 (12·0%)	69 (10·0%)
Sex			
Female	998 (67·7%)	521 (67·7%)	477 (67·7%)
Male	477 (32·3%)	249 (32·3%)	228 (32·3%)
Residents using a catheter	124 (8·4%)	64 (8·3%)	60 (8·5%)
Residents using incontinence aids	1138 (77·2%)	607 (78·8%)	531 (75·3%)
Mobility status			
Mobile residents	1028 (69·7%)	525 (68·2%)	503 (71·4%)
Wheelchair bound residents	417 (28·3%)	219 (28·4%)	198 (28·1%)
Bedbound residents	30 (2·0%)	26 (3·4%)	4 (0·6%)
Residents able to give informed consent	535 (36·3%)	302 (39·2%)	233 (33·1%)
Residents´ baseline medical information			
Number of residents†	1470 (100·0%)	765 (52·0%)	705 (48·0%)
Treatments for UTI per resident (1 year before the trial)	1·1 (0–18)	1·1 (0–18)	1·2 (0–12)
Residents receiving prophylactic treatment for UTI at inclusion	104 (7·1%)	46 (6·0%)	58 (8·2%)
Residents receiving medical treatment for diabetes at inclusion	174 (11·8%)	90 (11·8%)	84 (11·9%)

Data are n (%) or mean (range). Percentages might not add up to 100% because of rounding. UTI=urinary tract infection. *Used for secondary analysis. †Used for primary analysis.

Table 1: **Baseline characteristics of nursing homes and nursing home residents**

***Panel:* Primary components of the intervention**

Interactive educational session for nursing home staff

1 Background:
   - Consequences of antibiotic resistance
   - Communication pathway between the resident with a suspected urinary tract infection (UTI) and the physician
2 Discussion of UTI definitions in nursing home residents and asymptomatic bacteriuria
3 Discussion on how to evaluate a resident with non-specific symptoms
4 Case 1: the facilitator showed how to use the dialogue tool
5 Case 2: the participants used the dialogue tool

The dialogue tool

Reflection tool

1 Checklist of observed signs and symptoms
2 Flowchart to determine if UTI is likely
3 Four key questions for reflection:
   - Have other diagnostic possibilities been explored before suspecting UTI?
   - Is there new onset and substantial change?
   - Is it possible to wait, and see?
   - Will preventive hygienic measures help?

Communication tool

1 Identification: identify the patient and the contacting staff member
2 Situation: describe the event, the duration, and the patient's vital signs
3 Background: describe any measures taken, use of urinary catheter, and prophylactic treatment of UTI
4 Assessment: describe symptoms
5 Recommendation: ask for advice

	Total events during trial, n		Rate ratios (95% CI)		
	Intervention group (84 035 days at risk)	Control group (77 817 days at risk)	Crude calculation	Unadjusted model with GEE	Adjusted model with GEE
Primary outcome					
Antibiotic prescriptions for UTI	134	228	0·54 (0·44–0·67)	0·51 (0·37–0·71)	0·42 (0·31–0·57)
Secondary outcomes					
Appropriate antibiotic treatments for UTI	22	24	0·85 (0·48–1·51)	0·79 (0·52–1·19)	0·65 (0·41–1·06)
Inappropriate antibiotic treatments for UTI	32	62	0·48 (0·31–0·73)	0·41 (0·27–0·64)	0·33 (0·23–0·49)
All-cause hospitalisations	246	175	1·30 (1·07–1·58)	1·33 (1·03–1·74)	1·28 (0·95–1·74)
All-cause mortality	79	75	0·98 (0·71–1·34)	0·91 (0·57–1·46)	0·91 (0·62–1·33)

GEE=generalising estimating equations.

Table 2: **Primary and secondary endpoints in nursing home residents**

- Microbiote

THE GERONTOLOGICAL SOCIETY OF AMERICA®

Journals of Gerontology: Biological Sciences
cite as: *J Gerontol A Biol Sci Med Sci*, 2021, Vol. 76, No. 11, 1930–1938
doi:10.1093/gerona/glab167
Advance Access publication June 14, 2021

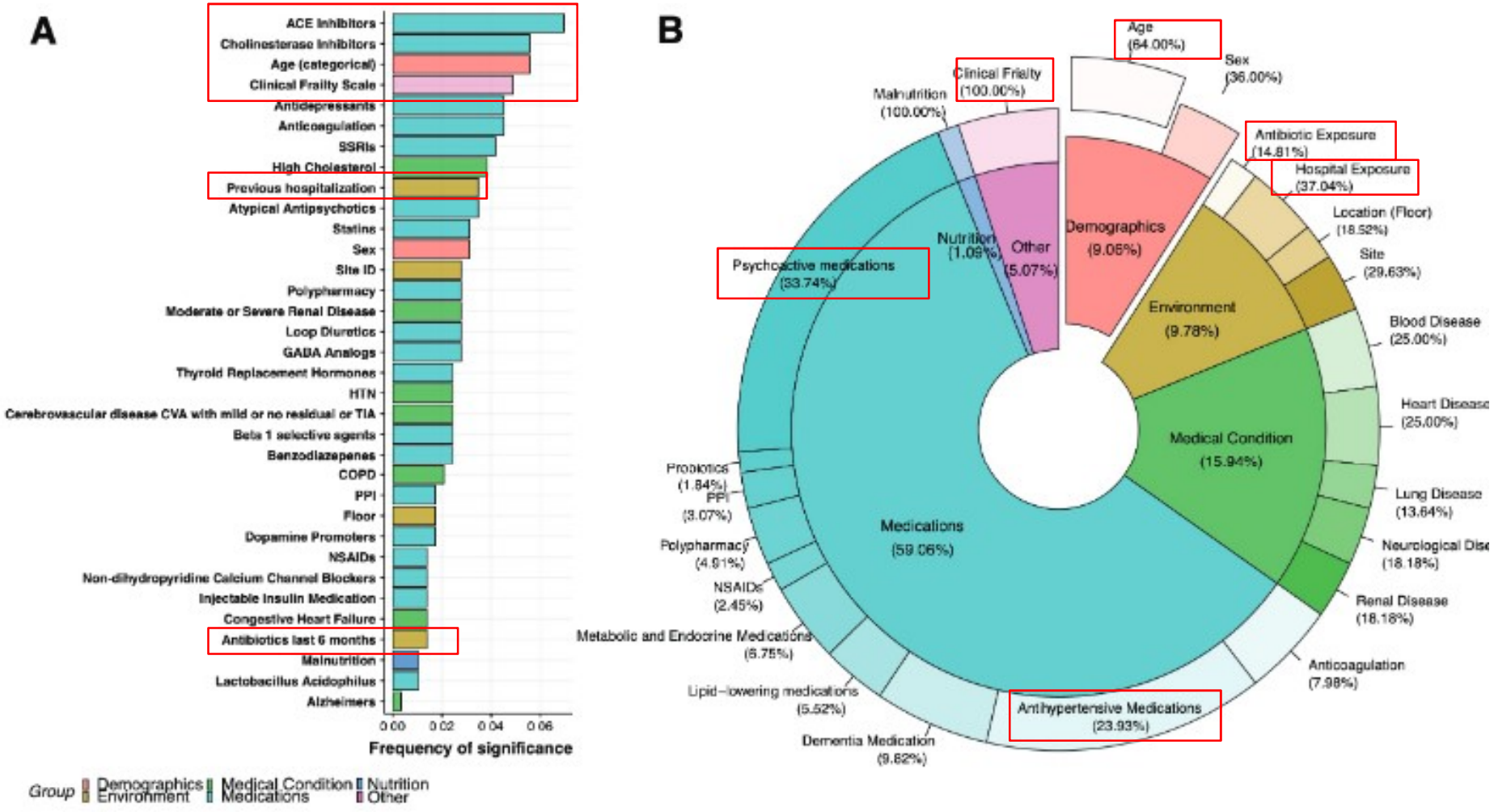
OXFORD

Original Article

The Nursing Home Older Adult Gut Microbiome Composition Shows Time-dependent Dysbiosis and Is Influenced by Medication Exposures, Age, Environment, and Frailty

John P. Haran, MD, PhD,[1,2,*] Abigail Zeamer,[2,3] Doyle V. Ward, PhD,[2,3] Protiva Dutta,[1] Vanni Bucci, PhD,[2,3] and Beth A. McCormick, PhD[2,3]

[1]Department of Emergency Medicine, University of Massachusetts Medical School, Worcester, USA. [2]Program in Microbiome Dynamics, University of Massachusetts Medical School, Worcester, USA. [3]Department of Microbiology and Physiological Systems, University of Massachusetts Medical School, Worcester, USA.



“Nursing-Home Dysbiotic microbiome that develops over time”

- Une alternative à la transplantation fécale

pour les colites à *C. difficile* multi-récidivantes ?

The NEW ENGLAND JOURNAL of MEDICINE

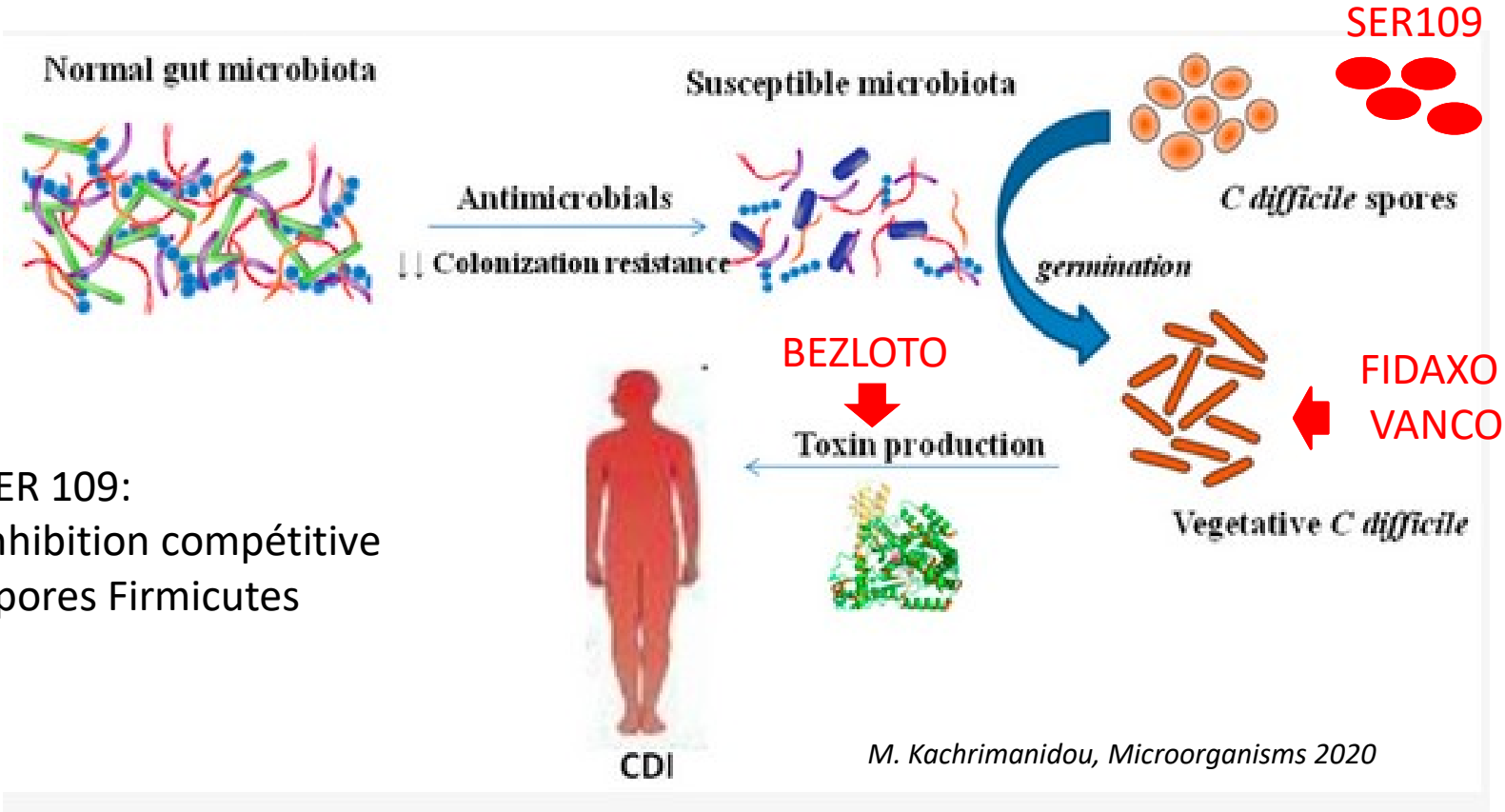
ORIGINAL ARTICLE

SER-109, an Oral Microbiome Therapy for Recurrent *Clostridioides difficile* Infection

Paul Feuerstadt, M.D., Thomas J. Louie, M.D., Bret Lashner, M.D., Elaine E.L. Wang, M.D., Liyang Diao, Ph.D., Jessica A. Bryant, Ph.D., Matthew Sims, M.D., Ph.D., Colleen S. Kraft, M.D., Stuart H. Cohen, M.D., Charles S. Berenson, M.D., Louis Y. Korman, M.D., Christopher B. Ford, Ph.D., Kevin D. Litcofsky, Ph.D., Mary-Jane Lombardo, Ph.D., Jennifer R. Wortman, M.Sc., Henry Wu, Ph.D., John G. Auniņš, Ph.D., Christopher W.J. McChalicher, B.Ch.E., Jonathan A. Winkler, Ph.D., Barbara H. McGovern, M.D., Michele Trucksis, M.D., Ph.D., Matthew R. Henn, Ph.D., and Lisa von Moltke, M.D.

N Engl J Med 2022;386:220-9.
DOI: 10.1056/NEJMoa2106516

- **Rationnel :**
- etre actif non pas uniquement sur la phase toxinique (=antibiotiques)
- mais aussi sur la phase pré-toxinique (germination et replication)



SER 109:
Inhibition compétitive
Spores Firmicutes

Table 1. Demographic and Clinical Characteristics of the Patients at Baseline (Intention-to-Treat Population).*

Characteristic	SER-109 (N=89)	Placebo (N=93)
Age — yr	65.6±16.5	65.5±16.7
Episodes of *C. difficile* infection, including qualifying episode — no. (%)		
3	49 (55)	61 (66)
≥4	39 (44)	32 (34)
Missing data	1 (1)	0
Previous antibiotic regimen — no. (%)		
Vancomycin	64 (72)	69 (74)
Fidaxomicin	25 (28)	24 (26)

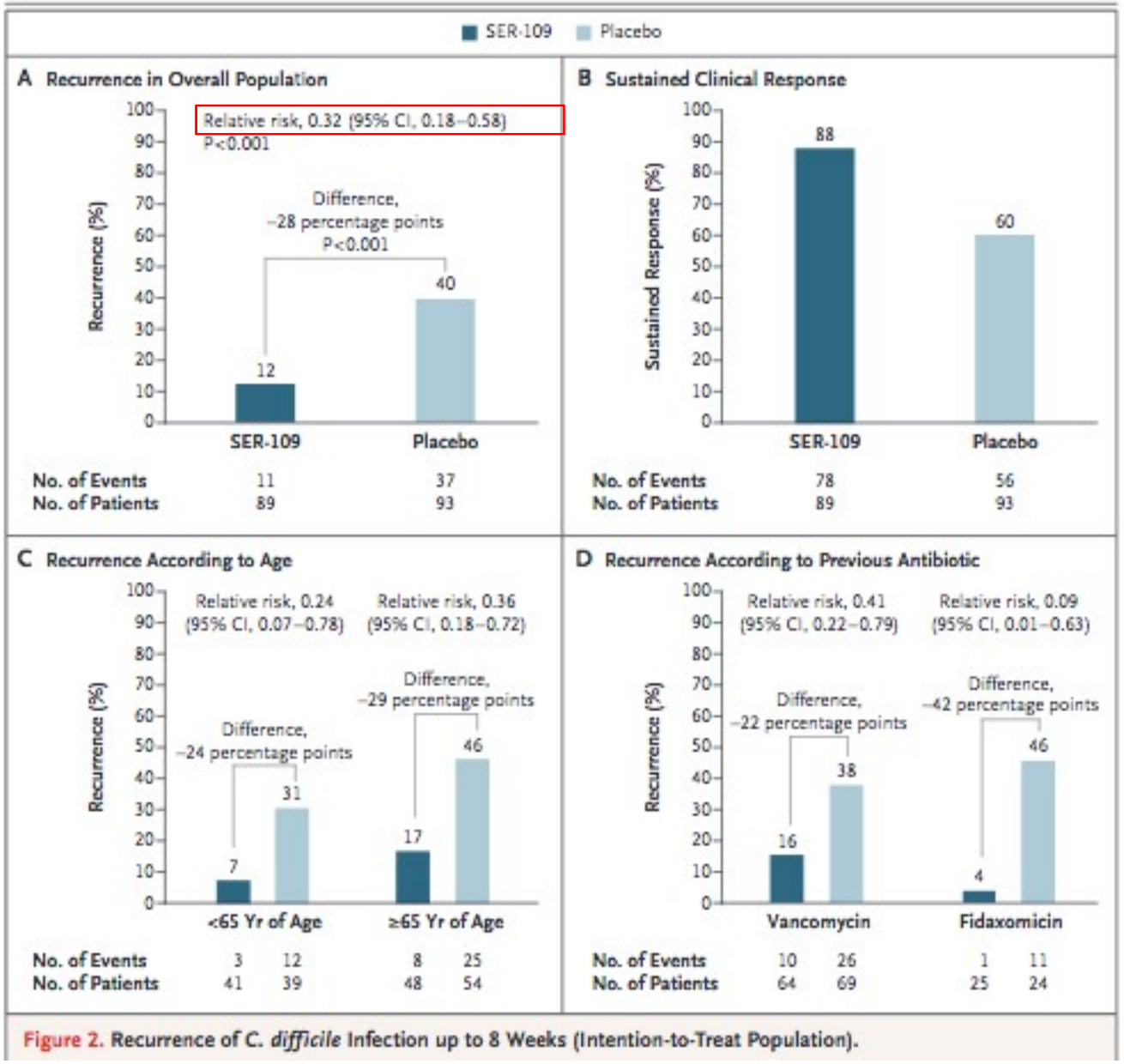


Figure 2. Recurrence of *C. difficile* Infection up to 8 Weeks (Intention-to-Treat Population).

- Morbi-mortalité post sepsis ?

JAMA Network | Open

Original Investigation | Critical Care Medicine

Epidemiology and Costs of Postsepsis Morbidity, Nursing Care Dependency, and Mortality in Germany, 2013 to 2017

Carolin Fleischmann-Struzek, MD; Norman Rose, PhD, Dipl-Psych; Antje Freytag, PhD, Dipl-Volksw; Melissa Spoden, DrPh, MSc; Hallie C. Prescott, MD, MSc; Anna Schettler; Lisa Wedekind, Dipl-Math; Bianka Ditscheid, PhD, Dipl-Troph; Josephine Storch, MSc; Sebastian Born, PhD, Dipl-Psych; Peter Schlattmann, MD, MSc; Christian Günster, Dipl-Math; Konrad Reinhart, MD; Christiane S. Hartog, MD

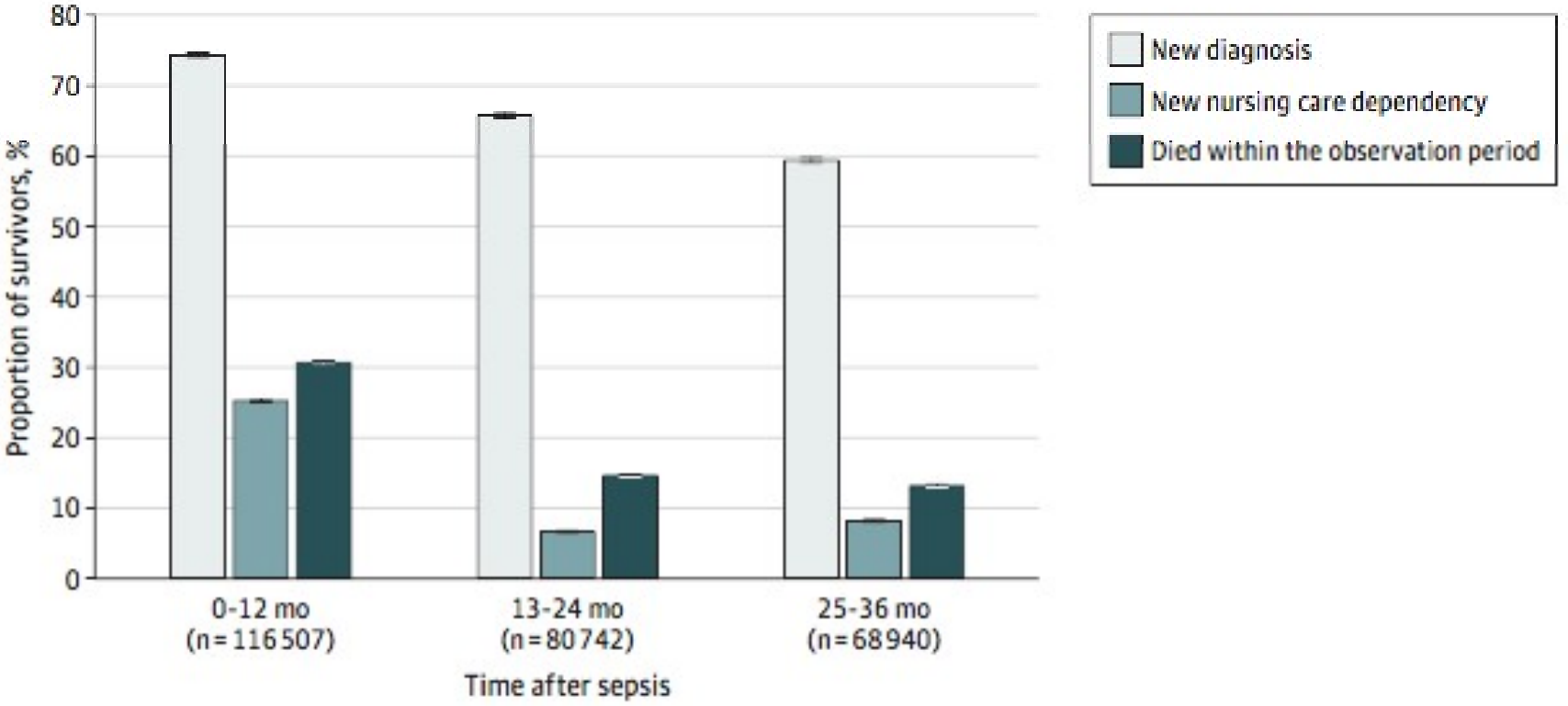
C. Fleischmann-Struzek, JAMA Network Open. 2021

-base nationale hôpitaux allemands
-Cohorte de 116 507 survivants de sepsis
-Âge moyen 74 ans

Dans l'année suivant le sepsis :

-3/4 de nouveaux diagnostics
-1/3 nouvelle institutionnalisation
-30% de décès

Figure 3. Postsepsis Morbidity and Mortality 1 to 12, 13 to 24, and 25 to 36 Months After Sepsis



- Infection et troubles cognitifs ?

Assessment of common infections and incident dementia using UK primary and secondary care data: a historical cohort study

Rutendo Muzambi, Krishnan Bhaskaran, Liam Smeeth, Carol Brayne, Nish Chaturvedi, Charlotte Warren-Gash

Lancet Healthy Longev 2021; 2: e426-35

	Total number of incident dementia diagnoses	Total person-years at risk	Fully adjusted HR (95% CI)‡
No infection	25 314	3 895 032	1 (ref)
Any infection	31 488	1 754 956	1·53 (1·50–1·55)
Sepsis	427	16 814	2·08 (1·89–2·29)
Pneumonia	1247	47 836	1·88 (1·77–1·99)
Other LRTI	13 429	910 432	1·34 (1·31–1·37)
UTI	10 513	481 341	1·73 (1·69–1·78)
SSTI	5535	291 603	1·54 (1·49–1·58)

	Total number of incident dementia diagnoses	Total person-years at risk	Fully adjusted HR (95% CI)‡
General practitioner recorded infections			
No infection	37 298	4 115 228	1 (ref)
Any infection	24 314	1 554 615	1·02 (1·00–1·04)
Hospital recorded infections			
No infection	51 127	5 534 732	1 (ref)
Any infection	7166	200 320	1·99 (1·94–2·04)

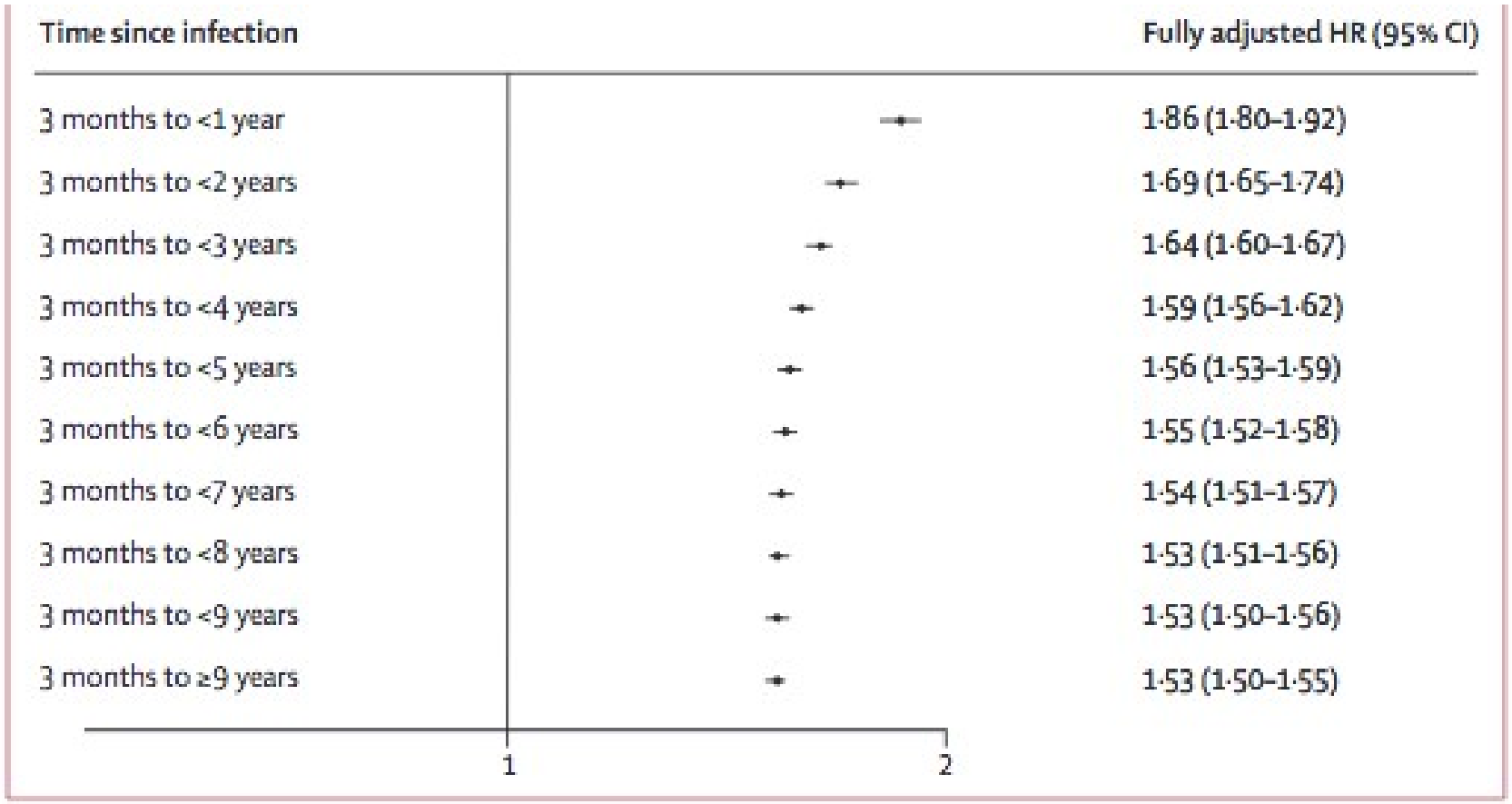


Figure: The association between common infections and dementia, stratified according to time since

“The underlying mechanisms driving the association between infections and dementia are unclear, but they might be partly explained by systemic inflammation.“

Infection	Total number of incident dementia diagnoses	***Fully adjusted HR (95% CI)
Alzheimer's Disease		
No infection	7137	1.00
Any Infection	6424	1.09 (1.05-1.13)
Sepsis	54	0.98 (0.75-1.28)
Pneumonia	203	1.15 (1.00-1.33)
Other LRTI	2956	1.03 (0.99-1.08)
UTI	2050	1.17 (1.11-1.23)
SSTI	1126	1.09 (1.02-1.17)
Vascular Dementia		
No infection	5040	1.00
Any Infection	7132	1.69 (1.62-1.76)
Sepsis	119	2.74 (2.28-3.29)
Pneumonia	295	2.08 (1.85-2.35)
Other LRTI	3136	1.50 (1.43-1.58)
UTI	2262	1.89 (1.79-1.99)
SSTI	1242	1.69 (1.59-1.80)


GInGer
SOCIÉTÉ FRANÇAISE
DE GÉRIATRIE
& GÉRONTOLOGIE