

Prévention des PAVM

Décontamination orale et/ou digestive chez les patients de réanimation

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Déclaration de conflits d'intérêt

2018 /

2019 /

2020 /

2021 /

Mieux définir la SDD

Le principe

(utilisé d'abord chez le neutropénique)

éliminer flore aérobie et préserver la flore anaérobie
(postulat que cela rétablirait un équilibre protecteur)

Baisser la flore bactérienne protégerait les autres
patients

**Protocole de soin n°2 suggéré par les experts : Décontamination digestive sélective (AVIS
D'EXPERTS)**

Application oro-pharyngée d'une pâte ou d'un gel contenant (x 4 / j, jusqu'à sortie de réanimation)

- Polymyxine E (2 %)
- Tobramycine (2 %)
- Amphotéricine B (2 %)

+

Administration via une sonde nasogastrique de 10 ml d'une suspension contenant (x 4 / j, jusqu'à sortie de réanimation)

- 100 mg Polymyxine E
- 80 mg Tobramycine
- 500 mg Amphotéricine B

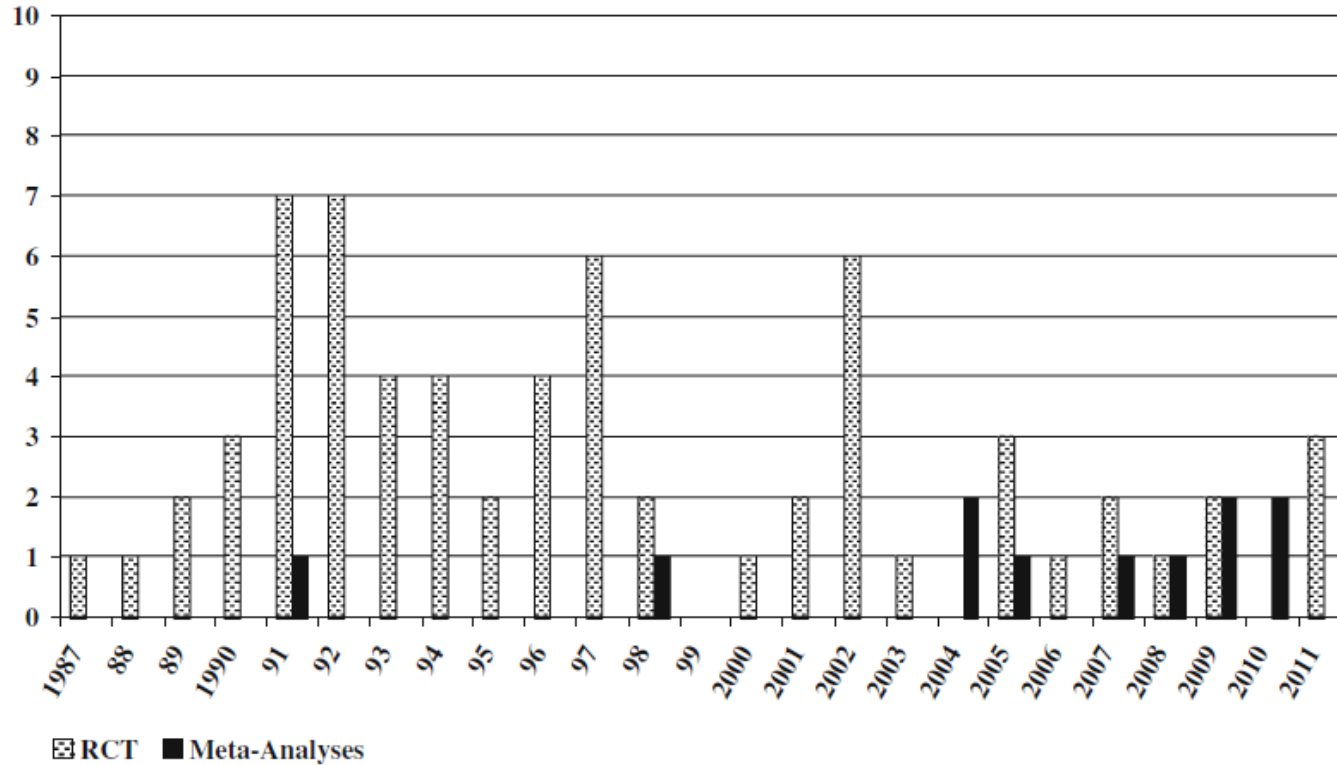
+

Administration intraveineuse d'une antibioprophylaxie pendant 48 à 72 heures chez les patients ne nécessitant pas d'antibiothérapie curative (posologie indicative en l'absence d'insuffisance rénale)

- Céfazoline 1 g x 3 / j
- En cas d'allergie aux céphalosporines :
 - Ofloxacine 200 mg x 2 / j
 - Ciprofloxacine 400 mg x 2 / j

Est-ce que cela fonctionne ?

65 Randomised Controlled Trials [RCT]
and 11 Meta-Analyses of SDD over 25 years [1987-2011]

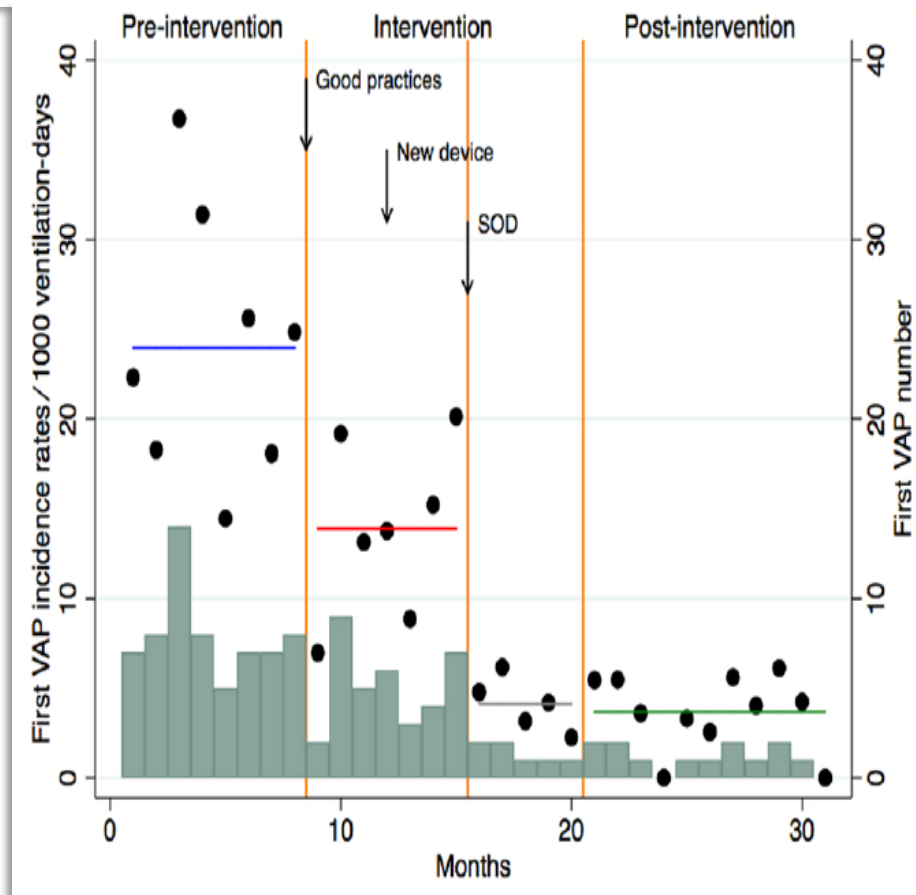


+ 1 Cochrane + depuis 2011 qq grandes RCT

Impact of a multifaceted prevention program on ventilator-associated pneumonia including selective oropharyngeal decontamination

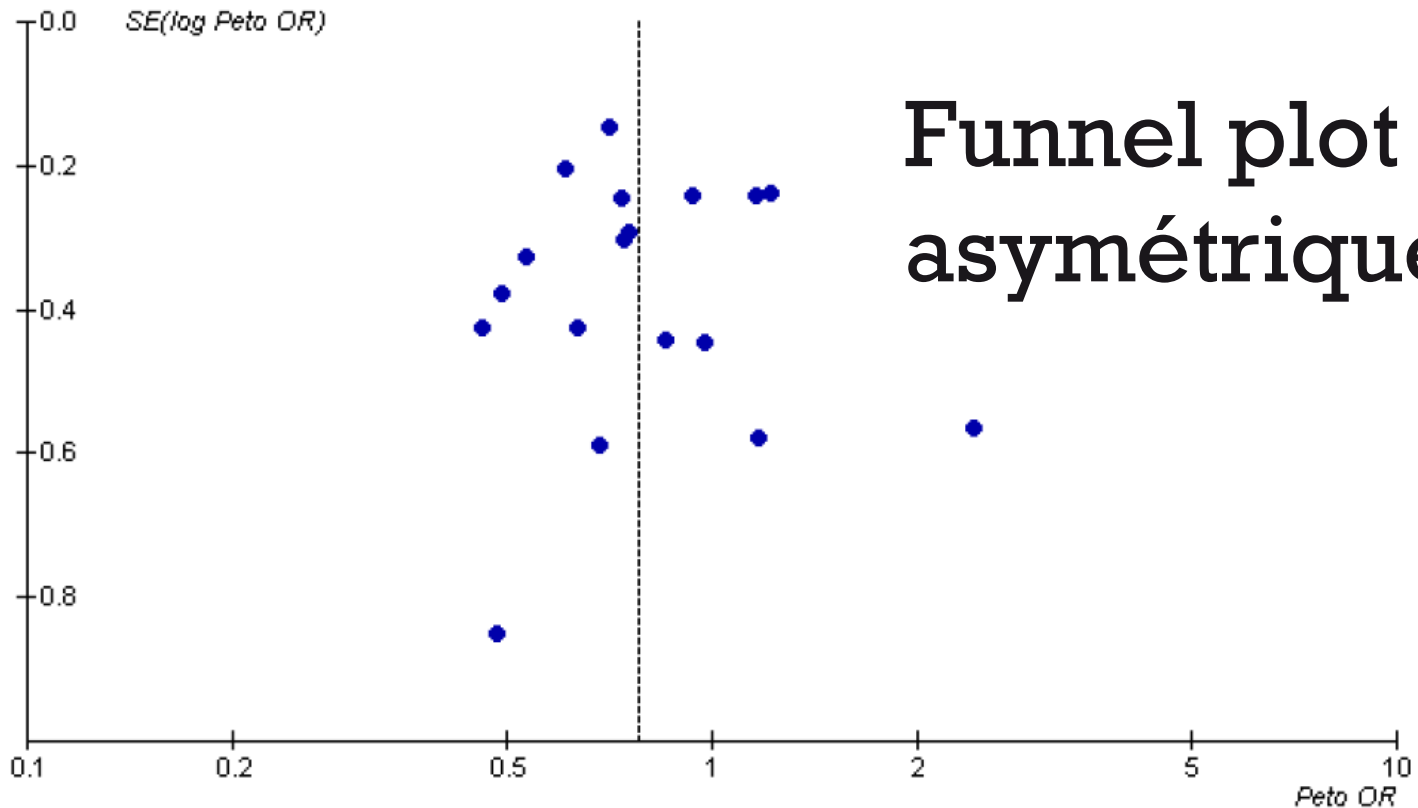
Landelle ICM 2018

The implementation of SOD was associated with a further decrease of 70% in VAP rates (IRR 0.30, 95% CI 0.18–0.48)



Cochrane 2009

Review: Antibiotic prophylaxis in adults receiving intensive care to reduce respiratory tract infections and mortality
Comparison: 01 topical plus systemic vs no prophylaxis
Outcome: 01 overall mortality

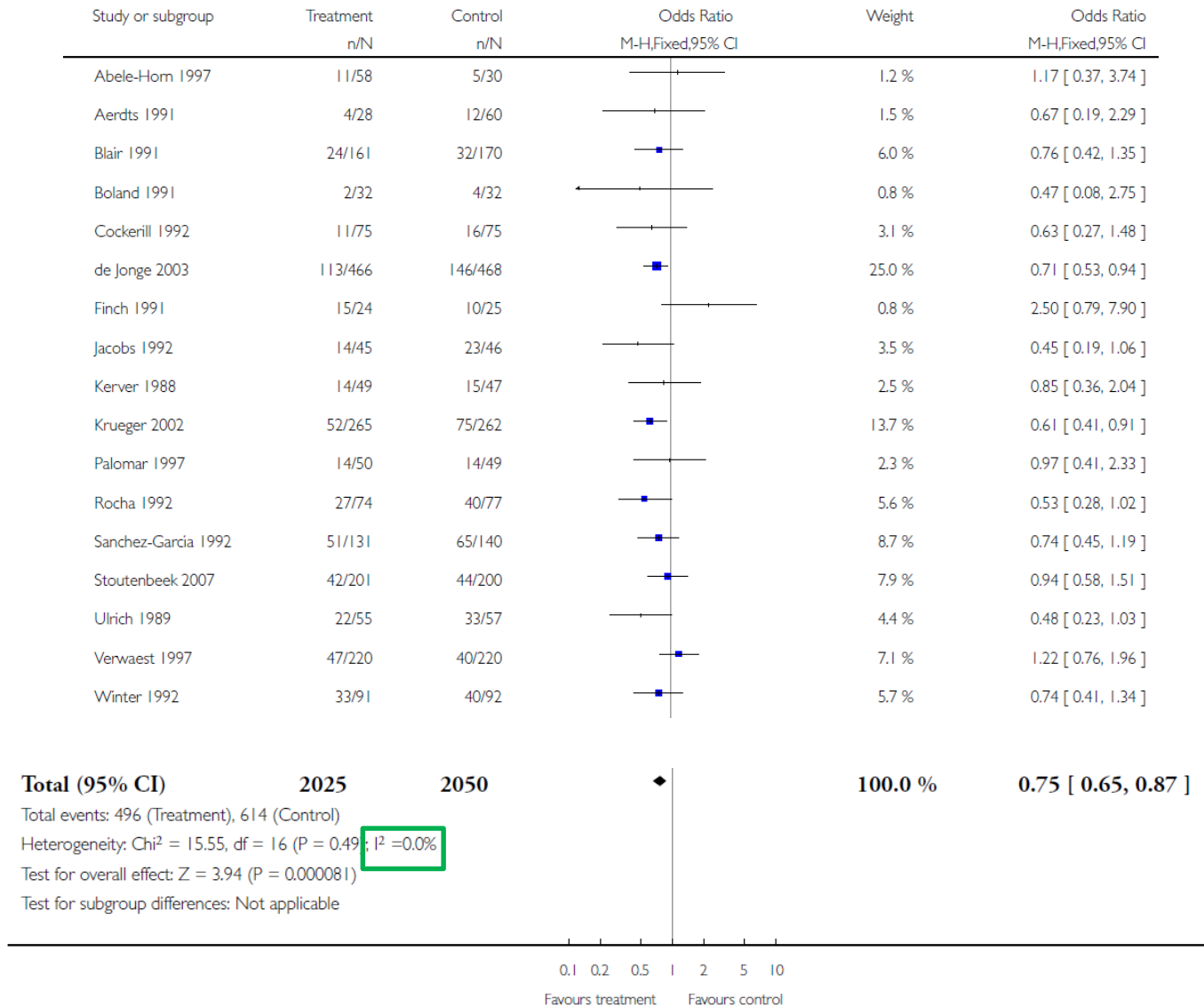


Mortalité

Top + syst vs rien

Comparison: I Topical plus systemic versus no prophylaxis

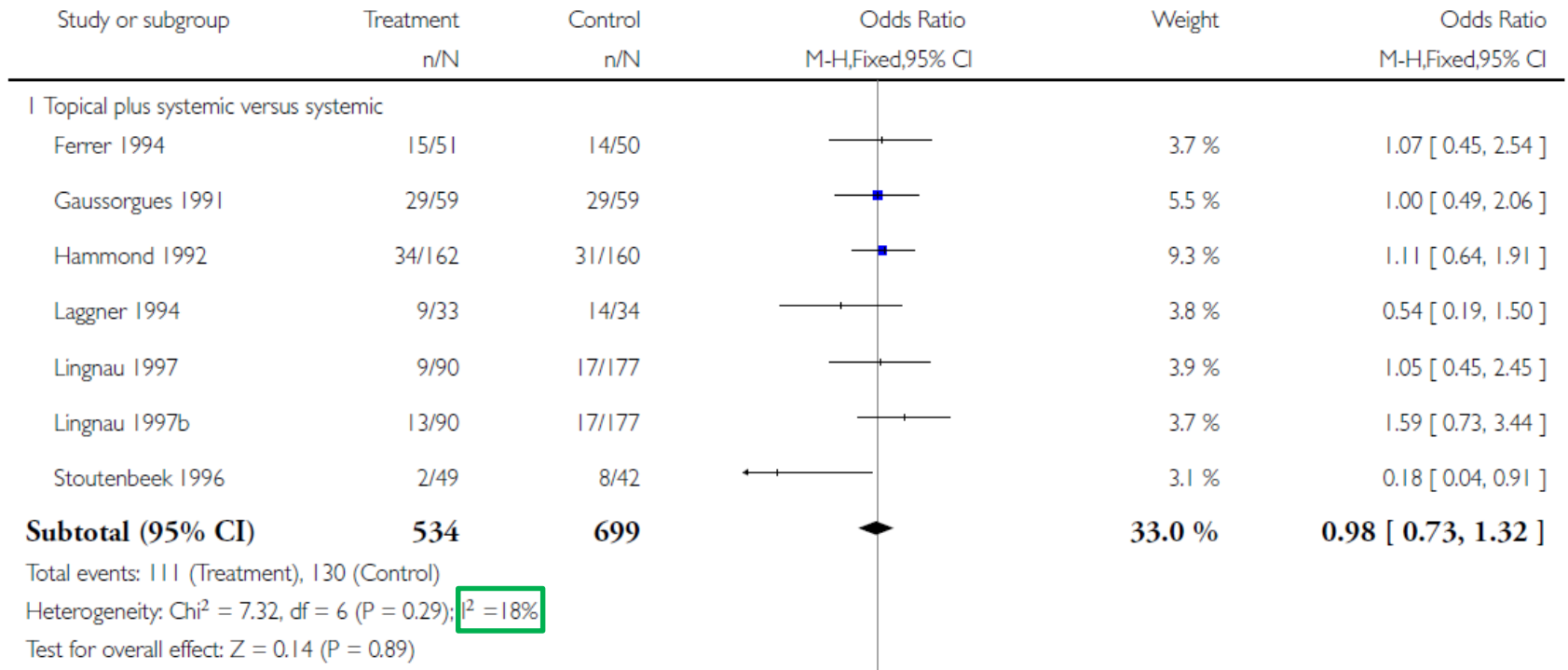
Outcome: I Overall mortality



Mortalité

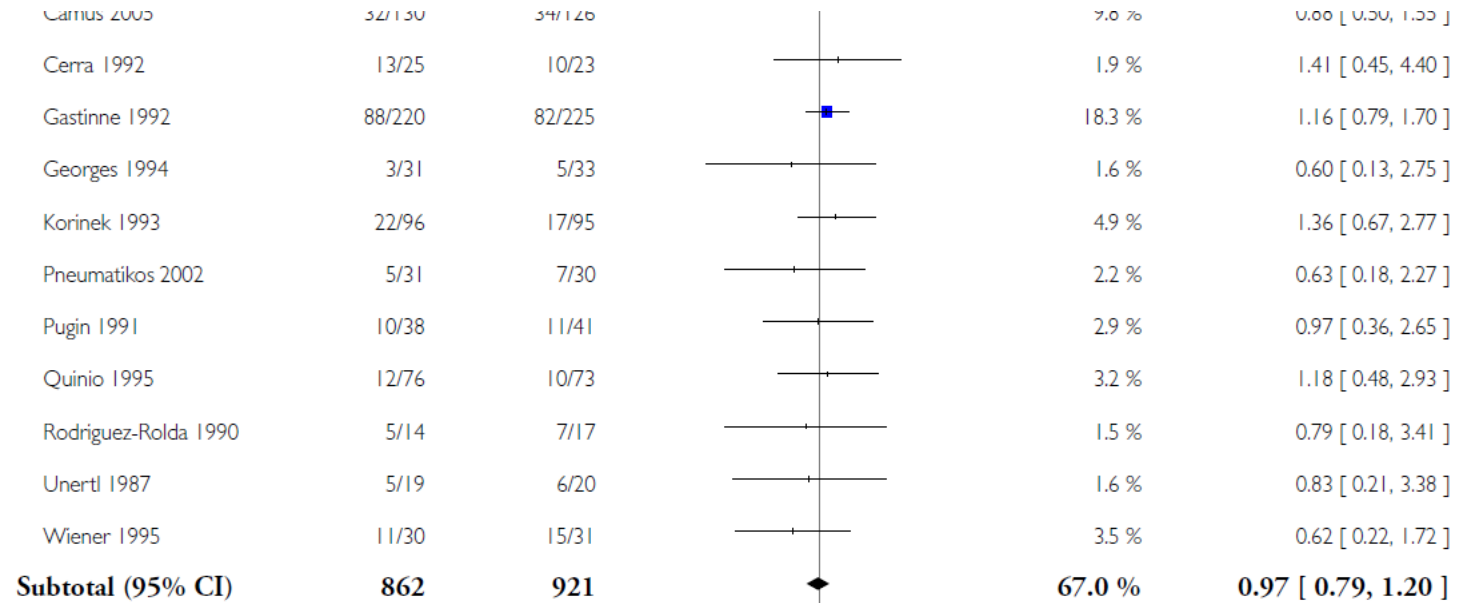
Top + syst vs syst

Outcome: Overall mortality



Mortalité

topic vs rien



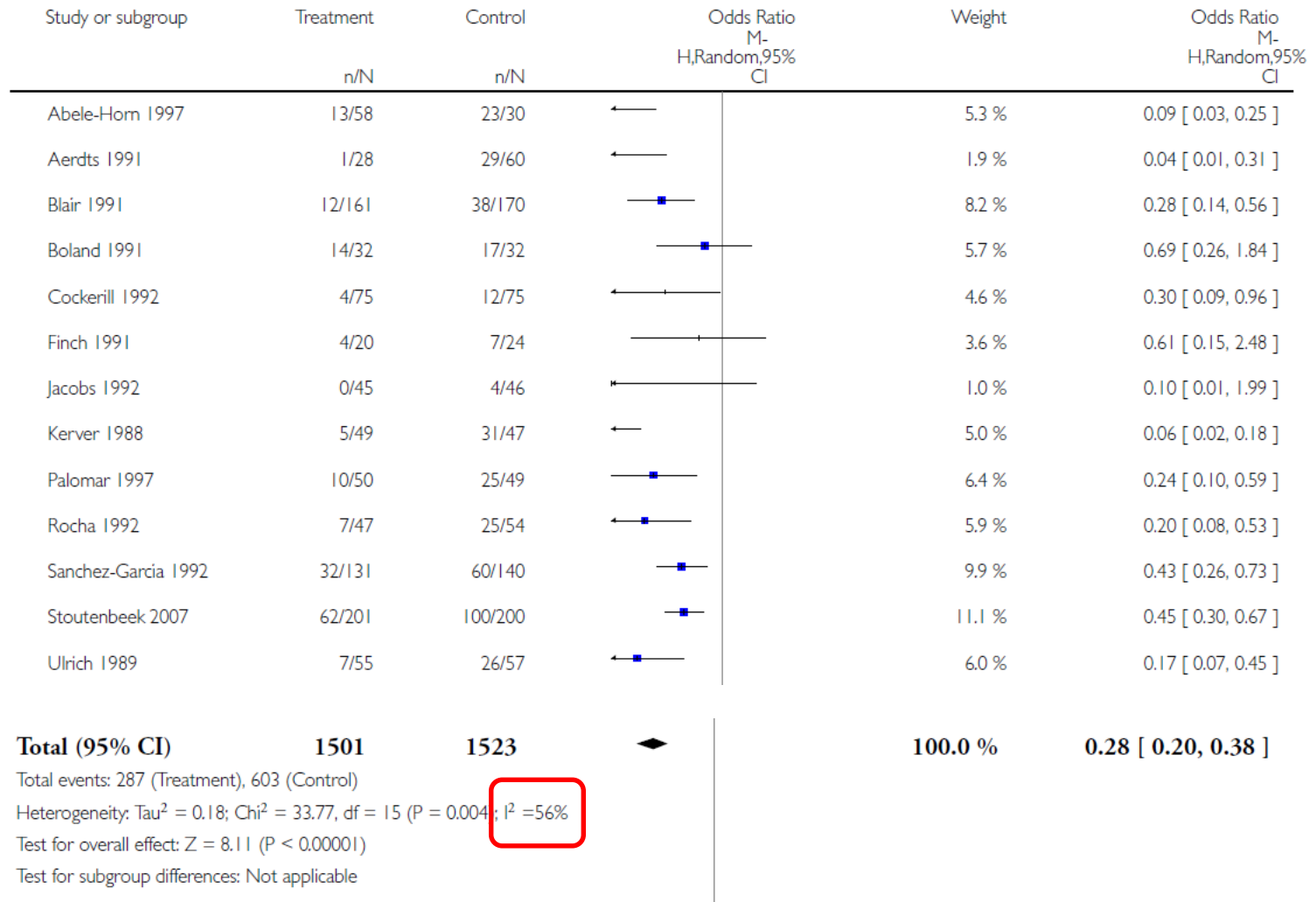
Total events: 250 (Treatment), 278 (Control)

Heterogeneity: $\text{Chi}^2 = 5.30$, $\text{df} = 12$ ($P = 0.95$) $I^2 = 0.0\%$

Test for overall effect: $Z = 0.26$ ($P = 0.80$)

Infections respiratoires

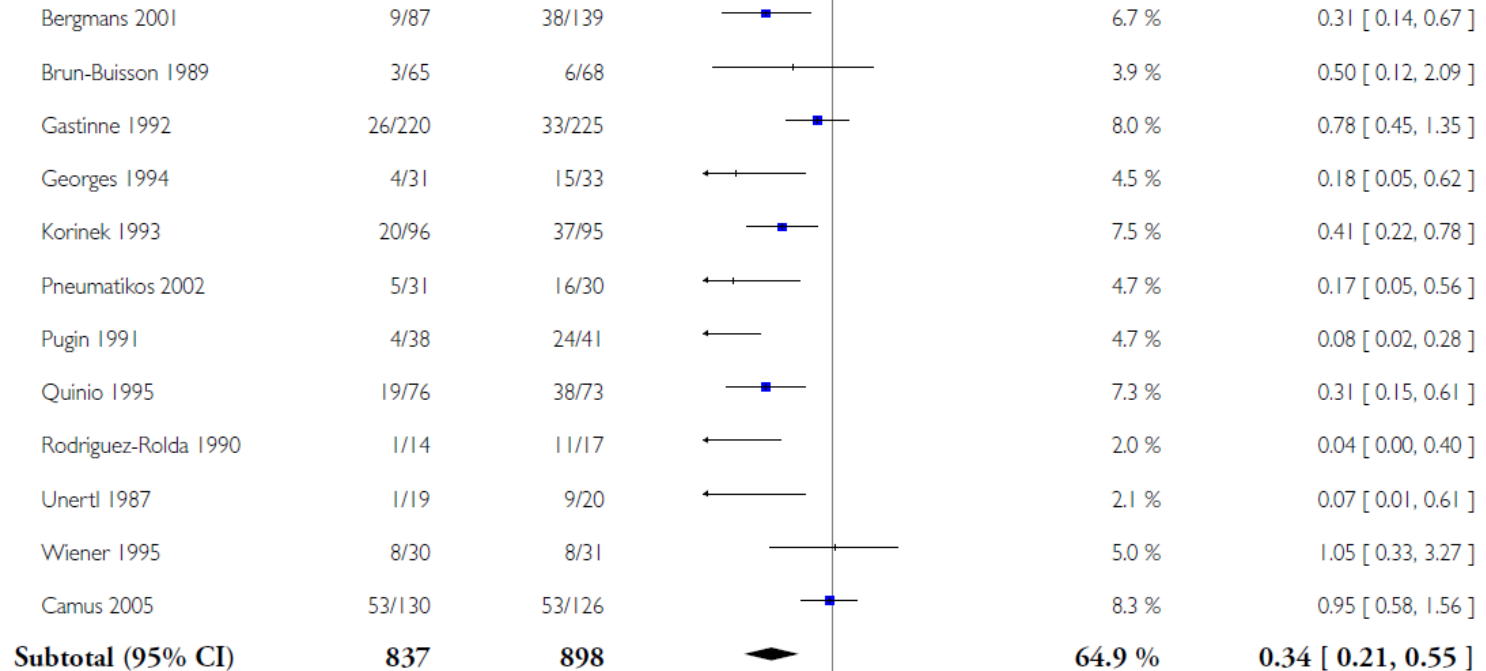
Topic + syst vs rien



Infections respiratoires

topic vs rien

2 Topical versus no prophylaxis



Total events: 153 (Treatment), 288 (Control)

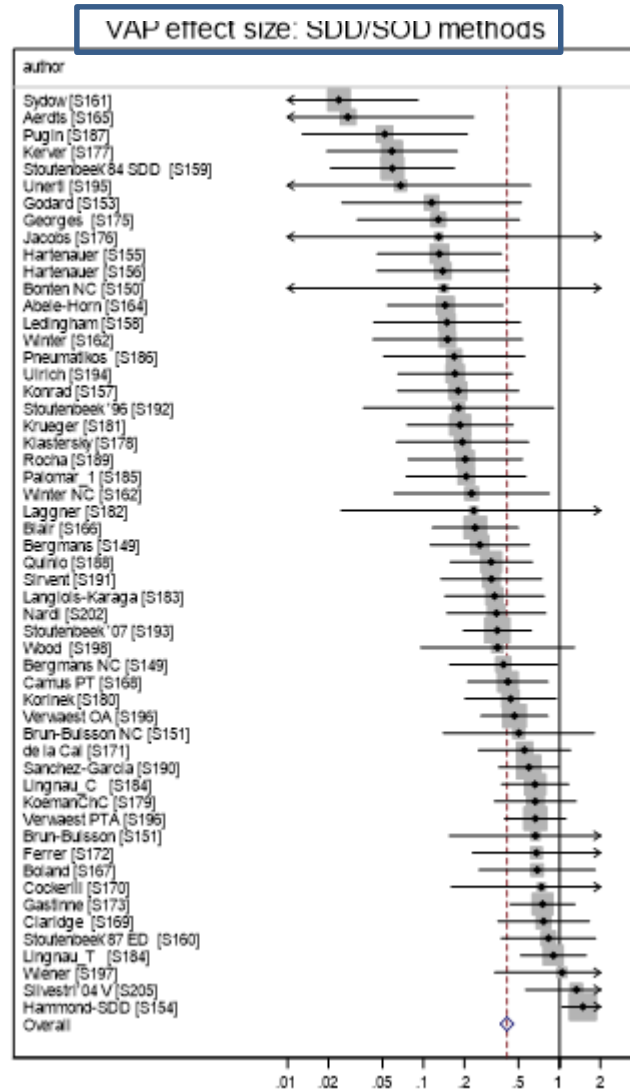
Heterogeneity: Tau² = 0.44; Chi² = 36.07, df = 11 (P = 0.00016); I² = 70%

Test for overall effect: Z = 4.34 (P = 0.000014)

Is selective decontamination (SDD/SOD) safe in the ICU context?

James C. Hurley  1,2*

JAC 2019



N= 54 études

Odds Ratio VAP 0,41 [0,37-0,46]

Fig S1

Caterpillar plot of the study specific (small squares) and summary (large open diamond, broken vertical line) effect size as odds ratio on the VAP incidence and 95 % CI among 54 studies of SDD/SOD methods of VAP prevention. Studies are listed in Table S2. Summary: OR: 0.41; 0.37-0.46; heterogeneity: chi-squared = 199.1 (d.f. = 53) p = 0.000, I-squared (variation in OR attributable to heterogeneity) = 74.4%.

Conclusion sur l'efficacité

Avant les grandes études randomisées

Le protocole complet (top + syst) réduit la mortalité (1/18 NNt)
mais cela semble être le caractère systémique qui est décisif

Par contre, les infections respiratoires semblent réduites
(attention hétérogénéité) quel que soit le protocole syst ou non



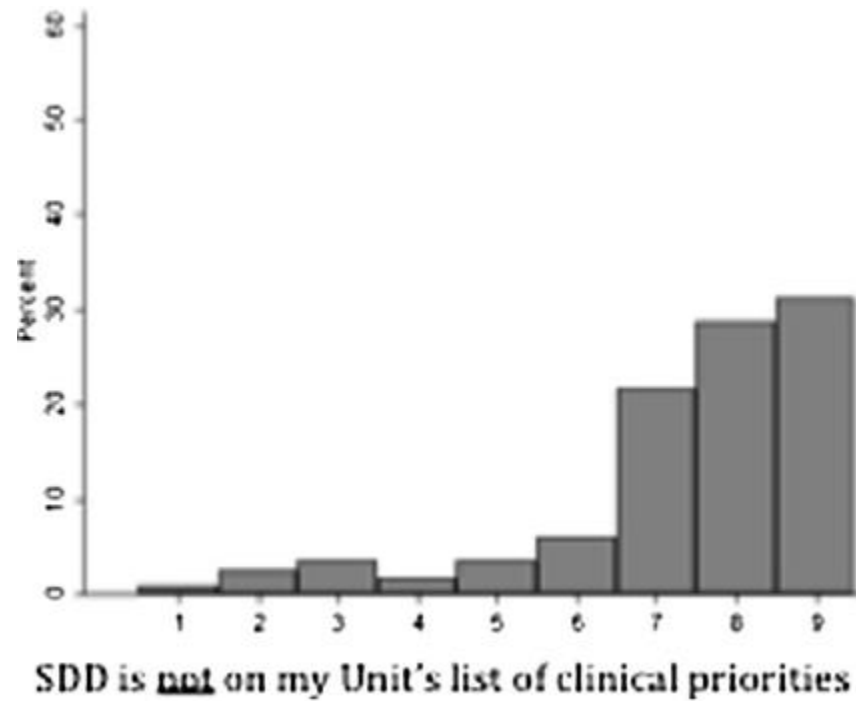
RESEARCH

Open Access

Clinical stakeholders' opinions on the use of selective decontamination of the digestive tract in critically ill patients in intensive care units: an international Delphi study

Brian H Cuthbertson^{1,2*}, Marion K Campbell³, Graeme MacLennan³, Eilidh M Duncan^{3,4}, Andrea P Marshall⁵, Elisabeth C Wells⁶, Maria E Prior^{3,4}, Laura Todd⁷, Louise Rose⁸, Ian M Seppelt⁹, Geoff Bellingan¹⁰ and Jill J Francis^{3,4}

USA Canada Australie UK
120 questionnaires, pas forcément experts
pas que réanimateurs (pharmaciens, infectieux, microbio)



Decontamination of the Digestive Tract and Oropharynx in ICU Patients

 The NEW ENGLAND
JOURNAL of MEDICINE

De Smet, Bonten
2009

Étude randomisée en cluster (13 ICUs) et cross over, périodes de 6 mois avec washout de 1 mois

SDD = 4j cefotax IV + coli+amphob+tobra estomac et orl + restriction en
carbapenem, amox, augmentin, peni

SOD coli+amphob+tobra orl

Table 2. Primary and Secondary End Points.*

End Point	Study Group			Unadjusted Odds Ratio or Hazard Ratio (95% CI)†		
	Standard Care (N=1990)	SDD (N=2045)	SOD (N=1904)	Standard Care	SDD	SOD
Death — no. (%)						
During the first 28 days	544 (27.5)	546 (26.9)	502 (26.6)	1.00	0.94 (0.82–1.08)	0.95 (0.82–1.10)
In the ICU	443 (22.3)	440 (21.5)	416 (21.8)	1.00	0.91 (0.79–1.06)	0.97 (0.83–1.13)
In the hospital	632 (31.8)	665 (32.6)	584 (30.7)	1.00	0.99 (0.86–1.13)	0.94 (0.82–1.08)

Time to outcome for survivors at

Characteristic	SDD (N = 2045)	SOD (N = 1904)	Standard Care (N = 1990)	P Value		
				SDD vs. Standard Care	SOD vs. Standard Care	SDD vs. SOD
Age — yr†	62.4±15.9	61.4±16.3	61.4±16.2	0.04	0.88	0.05
Male sex — no. (%)	1244 (61.2)	1213 (63.7)	1220 (61.3)	0.90	0.13	0.09
Mean APACHE II score	19.6±7.8	19.5±8.2	18.6±7.9	0.00	0.001	0.63
APACHE II score ≥20 — no. (%)	969 (47.4)	897 (47.1)	837 (42.1)	0.001	0.002	0.87
Mechanical ventilation — no. (%)	1890 (92.9)	1793 (94.2)	1753 (88.1)	0.00	0.00	0.12
Reason for admission — no. (%)						
Surgical	923 (45.4)	866 (45.5)	973 (48.9)	0.03	0.03	0.95
Medical	1111 (54.6)	1038 (54.5)	1016 (51.1)			
Specialty of admitting physician — no. (%)						
Surgery	605 (29.7)	551 (28.9)	609 (30.6)	0.56	0.26	0.60
Cardiothoracic surgery	353 (17.4)	284 (14.9)	321 (16.1)	0.31	0.31	0.04
Neurosurgery	105 (5.2)	140 (7.4)	145 (7.3)	0.006	0.95	0.005
Neurology	124 (6.1)	144 (7.6)	128 (6.4)	0.70	0.19	0.08
Internal medicine	382 (18.8)	371 (19.5)	393 (19.8)	0.45	0.84	0.60
Cardiology	159 (7.8)	147 (7.7)	129 (6.5)	0.11	0.13	0.95
Pulmonology	152 (7.5)	138 (7.2)	127 (6.4)	0.19	0.31	0.81
Other	153 (7.5)	126 (6.6)	137 (6.9)	0.47	0.75	0.29
Unknown	1 (<1)	3 (0.2)	0	1.00	0.12	0.36
Previous or preexisting condition — no. (%)						

Ils nous font croire à des déséquilibres entre les groupes

Pour mieux transformer une étude négative en étude positive

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Time to outcome for survivors at

Effects of Decontamination of the Oropharynx and Intestinal Tract on Antibiotic Resistance in ICUs

A Randomized Clinical Trial

2014

Evelien A. N. Oostdijk, MD, PhD; Jozef Kesecioglu, MD, PhD; Marcus J. Schultz, MD, PhD; Caroline E. Visser, MD, PhD; Evert de Jonge, MD, PhD; Einar H. R. van Essen, MD; Alexandra T. Bernards, MD, PhD; Ilse Purmer, MD; Roland Brimicombe, MD, PhD; Dennis Bergmans, MD, PhD; Frank van Tiel, MD, PhD; Frank H. Bosch, MD, PhD; Ellen Mascini, MD, PhD; Arjanne van Griethuysen, MD, PhD; Alexander Bindels, MD, PhD; Arjan Jansz, MD; Fred (A.) L. van Steveninck, MD, PhD; Wil C. van der Zwet, MD, PhD; Jan Willem Fijen, MD, PhD; Steven Thijsen, MD, PhD; Remko de Jong, MD; Joke Oudbier, MD; Adrienne Raben, MD; Eric van der Vorm, MD, PhD; Mirelle Koeman, MD, PhD; Philip Rothbarth, MD, PhD; Annemieke Rijkeboer, MD; Paul Gruteke, MD; Helga Hart-Sweet, MD; Paul Peerbooms, MD, PhD; Lex J. Winsser, MD[†]; Anne-Marie W. van Elsacker-Niele, MD, PhD; Kees Demmendaal, MD; Afke Brandenburg, MD, PhD; Anne Marie G.A. de Smet, MD, PhD; Marc J. M. Bonten, MD, PhD

Étude multicentrique (réa chir essentiellement, patients graves 20% mortalité réa)
 randomisée en cluster, en cross over sur 1 an SSD / 1 an SOD (washout 1 mois)
 Objectif principal: la résistance aux ATB, CJS la mortalité et les bactériémies

Table 3. Mortality End Points and Length of Stay (Days)

	Regimen		OR or HR (95% CI)	P Value	Adjusted Odds (95% CI)	P Value
	SOD	SDD				
Mortality, No. (%)^a						
No.	5957	6040				
ICU	1189 (20.0)	1114 (18.4)	0.90 (0.82-0.99)	.03	0.84 (0.76-0.93)	.001
Hospital	1677 (28.2)	1589 (26.3)	0.91 (0.84-0.98)	.02	0.86 (0.78-0.94)	.001
Day 28	1530 (25.7)	1439 (23.8)	0.90 (0.83-0.98)	.02	0.85 (0.77-0.93)	.001

SDD > SOD

Decontamination Strategies and Bloodstream Infections With Antibiotic-Resistant Microorganisms in Ventilated Patients A Randomized Clinical Trial

2018

Bastiaan H. Wittekamp, MD, PhD; Nienke L. Plantinga, MD, PhD; Ben S. Cooper, PhD; Joaquin Lopez-Contreras, MD, PhD; Pere Coll, MD, PhD; Jordi Mancebo, MD; Matt P. Wise, MD, PhD; Matt P. G. Morgan, MD, PhD; Pieter Depuydt, MD, PhD; Jerina Boelens, MD, PhD; Thierry Dugernier, MD, PhD; Valérie Verbelen, PhD; Philippe G. Jorens, MD, PhD; Walter Verbrugghe, MD; Surbhi Malhotra-Kumar, PhD; Pierre Damas, MD, PhD; Cécile Meex, PhD; Kris Leleu, MD; Anne-Marie van den Abeele, MD; Ana Filipa Gomes Pimenta de Matos, MSc; Sara Fernández Méndez, MD; Andrea Vergara Gomez, Msc; Viktorija Tomic, MD, PhD; Franc Sifrer, MD; Esther Villarreal Tello, MD; Jesus Ruiz Ramos, PhD; Irene Aragao, MD; Claudia Santos, MD; Roberta H. M. Sperring, Msc; Patrizia Coppadoro, BSc; Giuseppe Nardi, MD; Christian Brun-Buisson, MD, PhD; Marc J. M. Bonten, MD, PhD

Étude multicentrique (13 icu, réa med essentiellement, patients très graves 30% mortalité réa)
randomisée en cluster, en cross over sur 6 mois SDD / SOD / CHX oral

Bactériémies CJP, Mortalité CJs

Table 3. Associations Between Interventions and ICU-Acquired BSI and Patient Mortality

	Crude Analyses				Adjusted Analyses, Adjusted Hazard Ratio (95% CI) ^a		
	Baseline (n = 2251)	CHX (n = 2108)	SOD (n = 2224)	SDD (n = 2082)	CHX vs Baseline	SOD vs Baseline	SDD vs Baseline
Mortality at 28 d from ICU admission^e							
Incidence, no./No. (%)	701/2198 (31.9)	675/2049 (32.9)	703/2171 (32.4)	689/2022 (34.1)			
Absolute risk reduction vs baseline, % (95% CI)		-1.1 (-3.9 to 1.8)	-0.5 (-3.3 to 2.3)	-2.2 (-5.0 to 0.7)	1.07 (0.86 to 1.32) ^f	1.05 (0.85 to 1.29) ^f	1.03 (0.80 to 1.32) ^f

Résultats de Oostdijk ou De Smet non retrouvés !


Il persiste des doutes !

Que des esprits chagrins mettent vite sur le compte de qq éditorialistes

Letter to the Editor

Selective digestive and oropharyngeal decontamination in medical and surgical ICU patients

Resistance to selective decontamination: the jury is still out

 In *The Lancet Infectious Diseases*, Nick Daneman and an absolute reduction in mortality of 3.5 percentage

Comment on: Selective decontamination of the oropharynx and the digestive tract, and antimicrobial resistance: a 4 year ecological study in 38 intensive care units in the Netherlands

A. J. Petros^{1*}, L. Silvestri², N. Taylor³, F. Abecasis⁴, V. Damjanovic³, M. A. de la Cal⁵, D. Zandstra⁶ and H. K. F. van Saene³

British Journal of Anaesthesia 113 (4): 537–9 (2014)
Advance Access publication 30 July 2014 · doi:10.1093/bja/aeu260

Selective decontamination of the digestive tract: time to implement it in all UK intensive care units? Maybe not yet

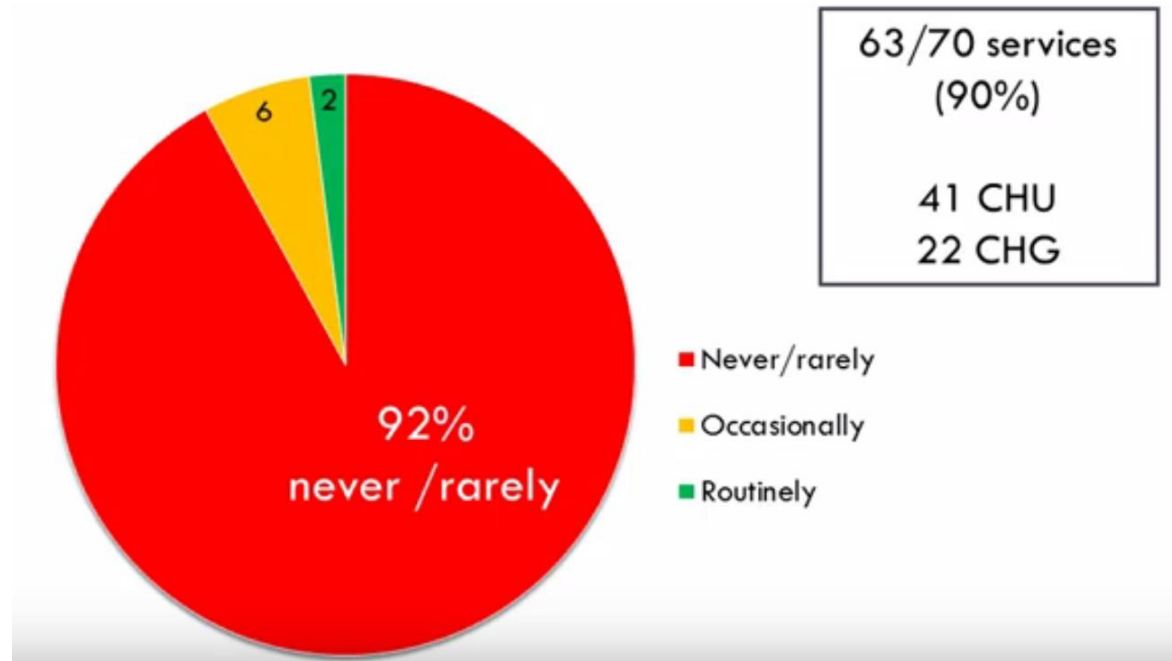
B. J. Philips

EUROPE



Reis Miranda et al.
Minerva Anestesiol 2015

FRANCE



Pourquoi ?

Promu et étudié en Hollande essentiellement

Limites des méta analyses et effets hétérogènes

Doute sur le dc de PAVM (bactériémies a pris la place comme CJP)

Pas de réduction démontrée des pavm à pyo, acineto pourtant visé par le SDD

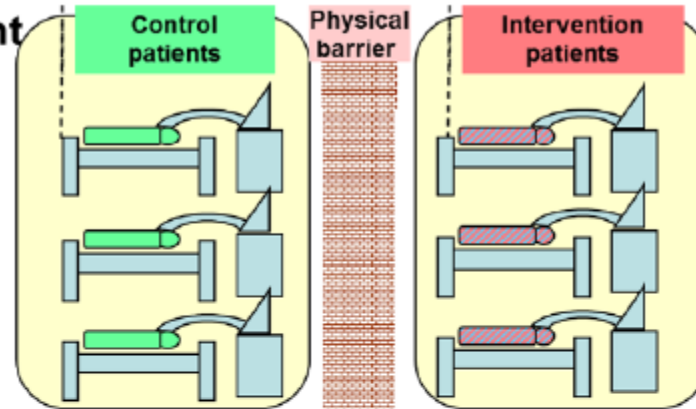
Surmortalité du groupe contrôle

Doute sur l'innocuité en terme de R

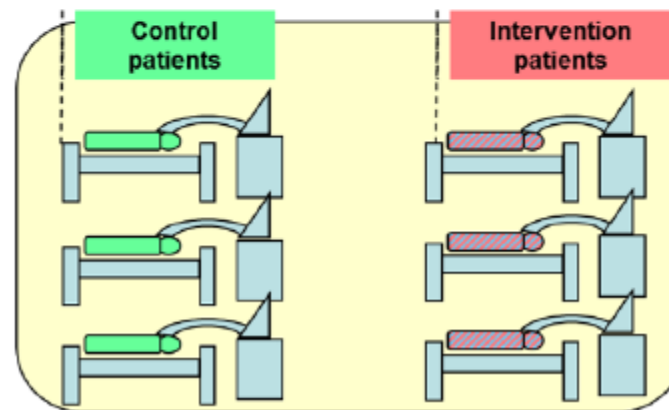
La surmortalité des groupes contrôles ?

Types of SDD study design:

a Non-concurrent

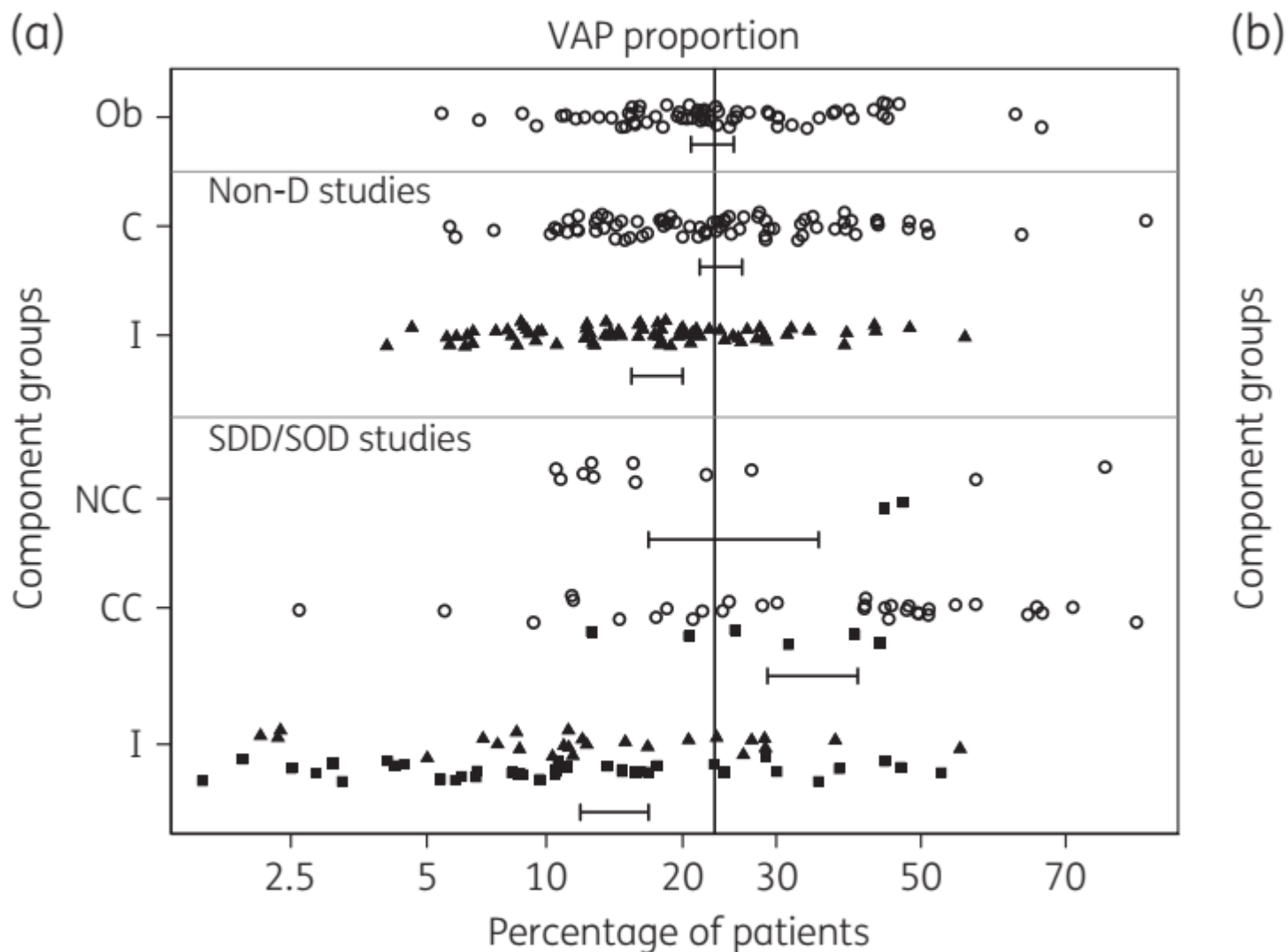


b RCCT:
(Randomized &
concurrent
controlled trial)

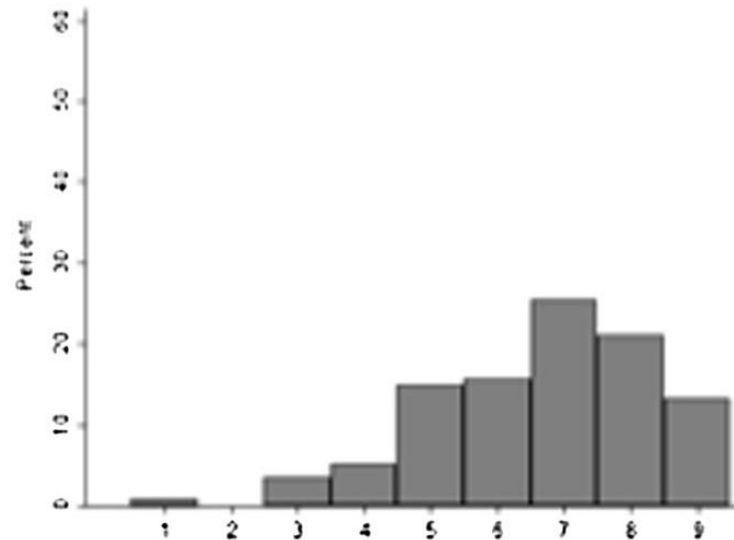


Is selective decontamination (SDD/SOD) safe in the ICU context?

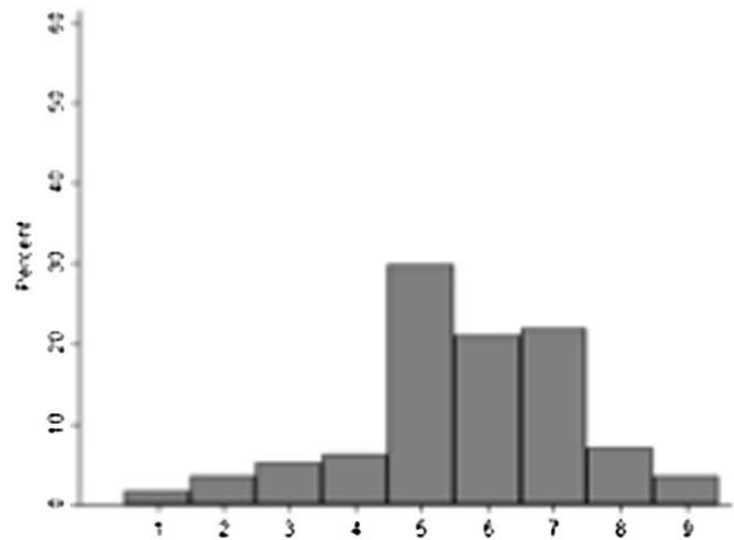
James C. Hurley ^{1,2*}



La résistance aux antibiotiques



Research to date has not adequately addressed concerns about antibiotic resistance and SDD



SDD increases antibiotic resistance

Luciano Silvestri
Miguel A. de la Cal
Hendrick K. F. van Saene



2013

Selective decontamination of the digestive tract: the mechanism of action is control of gut overgrowth

de Smet et al. [19] showed that there were fewer patients with AGNB in rectal swabs resistant to the marker antibiotics in the SDD than the SOD group.

Ecological Effects of Selective Decontamination on Resistant Gram-negative Bacterial Colonization



Evelien A. N. Oostdijk¹, Anne Marie G. A. de Smet², Hetty E. M. Blok¹, Emily S. Thieme Groen², Gerard J. van Asselt³, Robin F. J. Benus⁴, Sandra A. T. Bernardis⁵, Ine H. M. E. Frénay⁶, Arjan R. Jansz⁷, Bartelt M. de Jongh⁸, Jan A. Kaan⁹, Maurine A. Leverstein-van Hall¹, Ellen M. Mascini¹⁰, Wouter Pauw¹¹, Patrick D. J. Sturm¹², Steven F. T. Thijsen¹³, Jan A. J. W. Kluytmans^{14,15}, and Marc J. M. Bonten^{1,16}

2010

AT A GLANCE COMMENTARY

Scientific Knowledge on the Subject

The effects of selective decontamination on antibiotic resistance in intensive care units remain controversial. So far, effects of selective digestive tract decontamination on resistance have been studied in individual patients without determination of its ecological effects over time.

What This Study Adds to the Field

Selective decontamination was associated with a gradual increase in resistance rates among gram-negative bacteria in the respiratory tract and with a rebound effect of resistant gram-negative bacteria in the intestinal tract after discontinuation.

Ecological Effects of Selective Decontamination on Resistant Gram-negative Bacterial Colonization

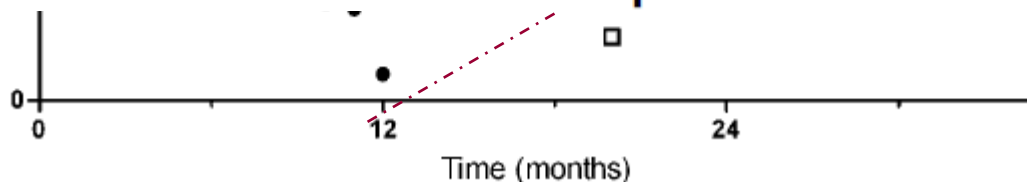


Evelien A. N. Oostdijk¹, Anne Marie G. A. de Smet², Hetty E. M. Blok¹, Emily S. Thieme Groen², Gerard J. van Asselt³, Robin F. J. Benus⁴, Sandra A. T. Bernardis⁵, Ine H. M. E. Fréney⁶, Arjan R. Jansz⁷, Bartelt M. de Jongh⁸, Jan A. Kaan⁹, Maurine A. Leverstein-van Hall¹, Ellen M. Mascini¹⁰, Wouter Pauw¹¹, Patrick D. J. Sturm¹², Steven F. T. Thijsen¹³, Jan A. J. W. Kluytmans^{14,15}, and Marc J. M. Bonten^{1,16}

2010

1A

Measurements and Main Results: During SDD, average proportions of patients with intestinal colonization with GNB resistant to either ceftazidime, tobramycin, or ciprofloxacin were 5, 7, and 7%, and increased to 15, 13, and 13% postintervention ($P < 0.05$). During SDD/SOD resistance levels in the respiratory tract were not more than 6% for all three antibiotics but increased gradually (for ceftazidime; $P < 0.05$ for trend) during intervention and to levels of 10% or more for all three antibiotics postintervention ($P < 0.05$).

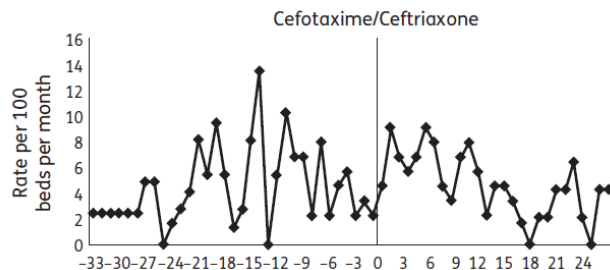
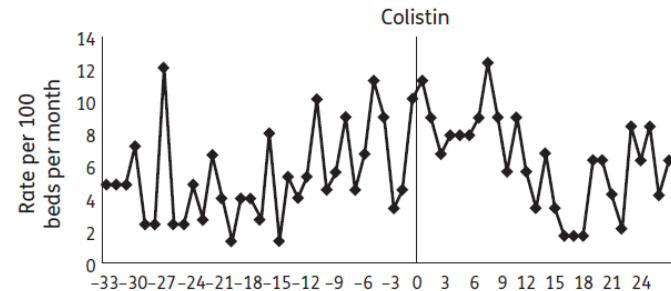
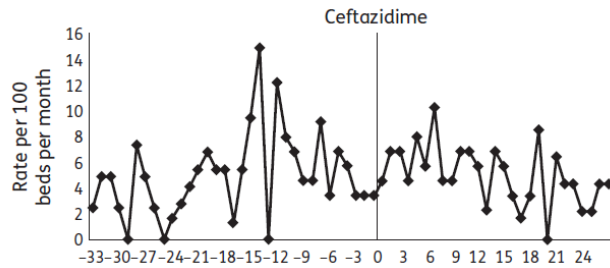
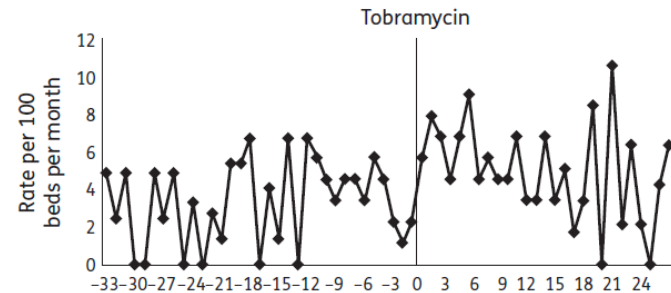
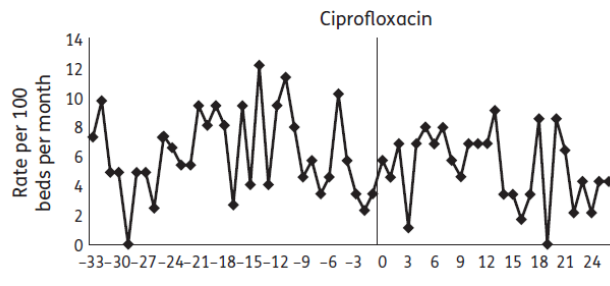


4 ans après

J Antimicrob Chemother 2014; **69**: 797–804
doi:10.1093/jac/dkt416 Advance Access publication 21 October 2013

Selective decontamination of the oropharynx and the digestive tract, and antimicrobial resistance: a 4 year ecological study in 38 intensive care units in the Netherlands

A. J. M. Houben^{1,2}, E. A. N. Oostdijk^{3,4}, P. H. J. van der Voort⁵, J. C. M. Monen¹, M. J. M. Bonten^{3,6} and A. K. van der Bijl^{1,7*} on behalf of the ISIS–AR Study Group†



Mais pas de test de tendance
Pas de distinction possible entre SOD et SDD

**A. J. Petros^{1*}, L. Silvestri², N. Taylor³, F. Abecasis⁴,
V. Damjanovic³, M. A. de la Cal⁵, D. Zandstra⁶ and
H. K. F. van Saene³**

Sir,

We read with interest the report by Houben *et al.*¹ entitled ‘Selective decontamination of the oropharynx and the digestive tract, and antimicrobial resistance: a 4 year ecological study in 38 intensive care units in the Netherlands’. Although this type of ecological study is evaluated as 2C, having a low level of evidence,² the results are still remarkable. Three years ago the same group published their first ecological study claiming the emergence of resistant microorganisms during selective decontamination of the digestive tract (SDD).³ Although the authors cite their earlier ecological study in their recent paper, they fail to try to explain why they found the opposite results, that SDD does not increase but rather reduces resistance. This is puzzling.

**Résultats contradictoires entre étude à 1
an et étude à 4 ans**

reduced rates of antibiotic resistance among aerobic Gram-negative

bacilli (AGNB) during SDD or a modification of SDD, termed selective oropharyngeal decontamination (SOD). However, there was an abrupt increase after discontinuation of SDD/SOD, suggesting a rebound effect on resistance in the intestinal tract, probably due to the recolonization of the patient by the surrounding microbiological flora.³

**Effet rebond dans un cas alors que
dans l'autre la SDD continue**

Pas d'étude
bien faite
sur le plan
méthodo

However, an absence of detection of antimicrobial resistance associated with selective decontamination could also relate to limitations identified in the included studies. First, and most importantly, the effect of selective decontamination on ICU-level antimicrobial resistance rates over time is largely unstudied. The median duration of selective decontamination intervention was 16 months, which should be sufficient time for exertion of selection pressure. However, only five studies examined temporal trends in resistance, only two compared the difference in antimicrobial resistance rates over time in recipients of selective decontamination versus non-recipients, and only one assessed this difference in patients treated in separate ICUs. Therefore, existing studies of selective decontamination have not answered the question of how selective decontamination affects ICU-level antimicrobial resistance rates over time.

Effects of Decontamination of the Oropharynx and Intestinal Tract on Antibiotic Resistance in ICUs

A Randomized Clinical Trial

Étude multicentrique (réa
chir essentiellement,
patients graves 20%
mortalité réa)
randomisée en cluster, en
cross over sur 1 an SSD / 1
an SOD (washout 1 mois)

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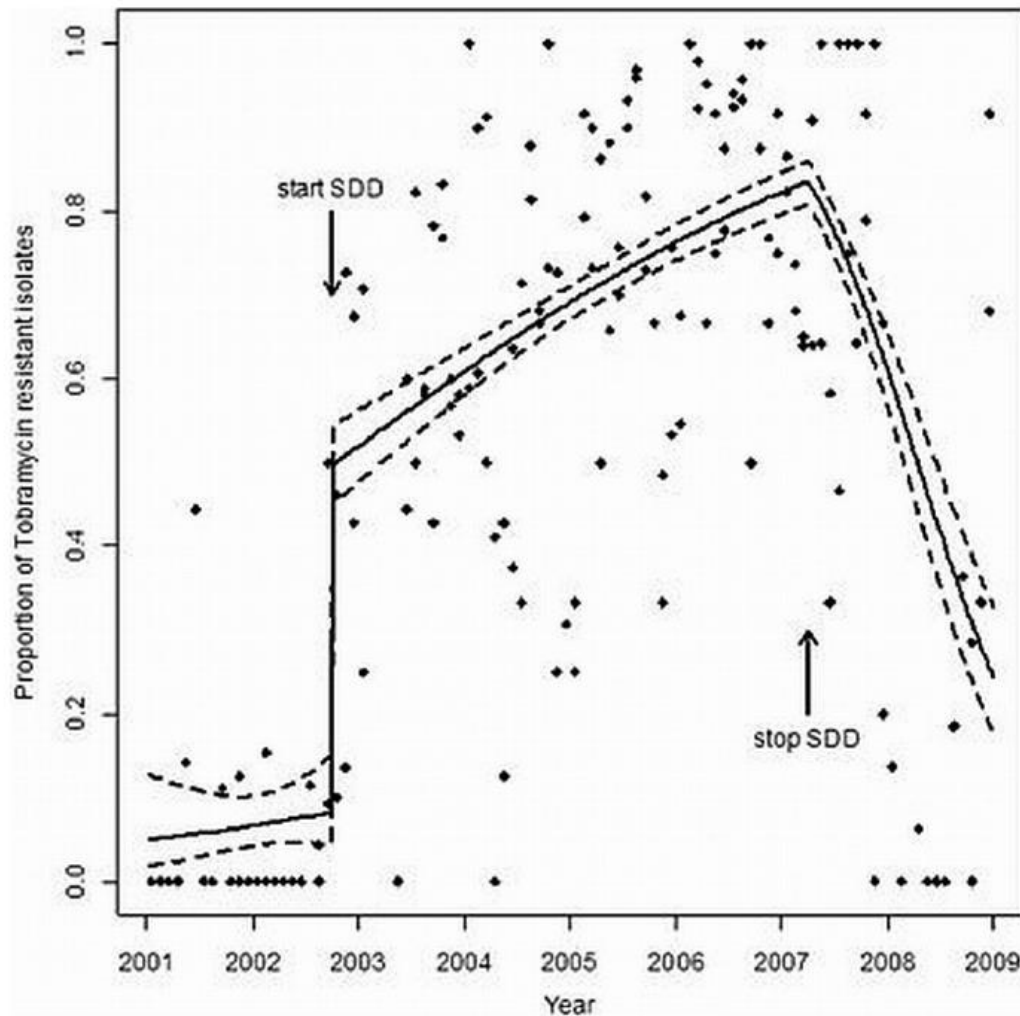
Objectif principal: la résistance aux ATB, mesurée sur un pvt systématique rectal et respiratoire le 3^{ème} jeudi de chaque mois

Table 2. Prevalence of Colonization With Resistant Bacteria During SOD and SDD

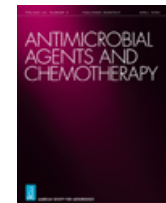
	SOD			SDD			P Value for Difference	
	Patients Colonized, No.(%) [95% CI]	Trend in Time ^a		Patients Colonized, No. (%) [95% CI]	Trend in Time ^a		Proportion Colonized	Slope
		% (95% CI)	P Value		% (95% CI)	P Value		
Rectal Samples								
Total patients cultured	n=1871 (mean per month, 156 [IQR, 150-164])			n=1928 (mean per month, 161 [IQR, 153-168])				
HRMO	237 (12.7) [11.2-14.2] ^b	1.03 (1.00-1.07)	.09	140 (7.3) [6.1-8.4]	1.05 (1.00-1.10)	.05	.008	.60
ESBL	144 (7.7) [6.5-8.9] ^b	1.03 (0.98-1.08)	.20	85 (4.4) [3.5-5.3]	1.06 (0.99-1.12)	.09	.02	.54
Aminoglycosides ^c	220 (11.8) [10.3-13.2] ^b	1.04 (1.00-1.08) ^b	.05	109 (5.6) [4.6-6.7]	1.07 (1.01-1.13)	.02	<.001	.40
Ciprofloxacin	193 (10.3) [8.9-11.7] ^b	1.01 (0.97-1.06)	.52	108 (5.6) [4.6-6.6]	1.03 (0.97-1.09)	.32	.009	.72
Carbapenems ^d	52 (2.8) [2.0-3.5] ^b			30(1.6) [1.0-2.1]			.04	
Colistin ^e	13 (0.7) [0.3-1.1]			23 (1.1) [0.7-1.]			.11	
VRE	4 (0.2) [0-0.4]			11 (0.6) [0.2-0.9]				

Emergence of Colistin Resistance in *Enterobacteriaceae* after the Introduction of Selective Digestive Tract Decontamination in an Intensive Care Unit

Teysir Halaby,^a Nashwan al Naiemi,^{a,b} Jan Kluytmans,^{b,c} Job van der Palen,^d Christina M. J. E. Vandenbroucke-Grauls^b



2013



Decontamination Strategies and Bloodstream Infections With Antibiotic-Resistant Microorganisms in Ventilated Patients

A Randomized Clinical Trial

2018

Bastiaan H. Wittekamp, MD, PhD; Nienke L. Plantinga, MD, PhD; Ben S. Cooper, PhD; Joaquin Lopez-Contreras, MD, PhD; Pere Coll, MD, PhD; Jordi Mancebo, MD; Matt P. Wise, MD, PhD; Matt P. G. Morgan, MD, PhD; Pieter Depuydt, MD, PhD; Jerina Boelens, MD, PhD; Thierry Dugernier, MD, PhD; Valérie Verbelen, PhD; Philippe G. Jorens, MD, PhD; Walter Verbrugghe, MD; Surbhi Malhotra-Kumar, PhD; Pierre Damas, MD, PhD; Cécile Meex, PhD; Kris Leleu, MD; Anne-Marie van den Abeele, MD; Ana Filipa Gomes Pimenta de Matos, MSc; Sara Fernández Méndez, MD; Andrea Vergara Gomez, Msc; Viktorija Tomic, MD, PhD; Franc Sifrer, MD; Esther Villarreal Tello, MD; Jesus Ruiz Ramos, PhD; Irene Aragao, MD; Claudia Santos, MD; Roberta H. M. Sperring, Msc; Patrizia Coppadoro, BSc; Giuseppe Nardi, MD; Christian Brun-Buisson, MD, PhD; Marc J. M. Bonten, MD, PhD


Étude multicentrique (13
 icu, réa med
 essentiellement, patients
 très graves 30% mortalité
 réa)
 randomisée en cluster, en
 cross over sur 6 mois SDD /
 SOD / CHX oral

Table 5. Prevalence of Unitwide Carriage of Antibiotic-Resistant Microorganisms in the Rectum and Respiratory Tract (Exploratory Outcome)

	Baseline	CHX	SOD	SDD			
	Prevalence, %	Prevalence, %	aRR (95% CI) ^a	Prevalence, %	aRR (95% CI) ^a	Prevalence, %	aRR (95% CI) ^a
Rectum							
MDRGNB, regardless of antibiotic susceptibility	1.0	1.5	0.80 (0.50-1.27)	1.1	0.80 (0.49-1.30)	1.6	1.01 (0.64-1.58)
Respiratory Tract							
MDRGNB, regardless of antibiotic susceptibility	3.8	5.2	1.16 (0.94-1.44)	3.2	0.97 (0.77-1.22)	3.6	1.04 (0.83-1.31)

Non retrouvé dans cette étude !

The ecological effects of selective decontamination of the digestive tract (SDD) on antimicrobial resistance: a 21-year longitudinal single-centre study

Sophie Buitinck^{1,2}, Rogier Jansen³, Saskia Rijkenberg¹, Jos P. J. Wester¹, Rob J. Bosman¹, Nardo J. M. van der Meer^{2,4} and Peter H. J. van der Voort^{1,2*} 

Crit Care 2019

1 centre hollandais, SDD depuis 1986, mesure du taux de BGN R parmi l'ensemble des pvts des patients pdt séjour en ICU (pas très standardisé)

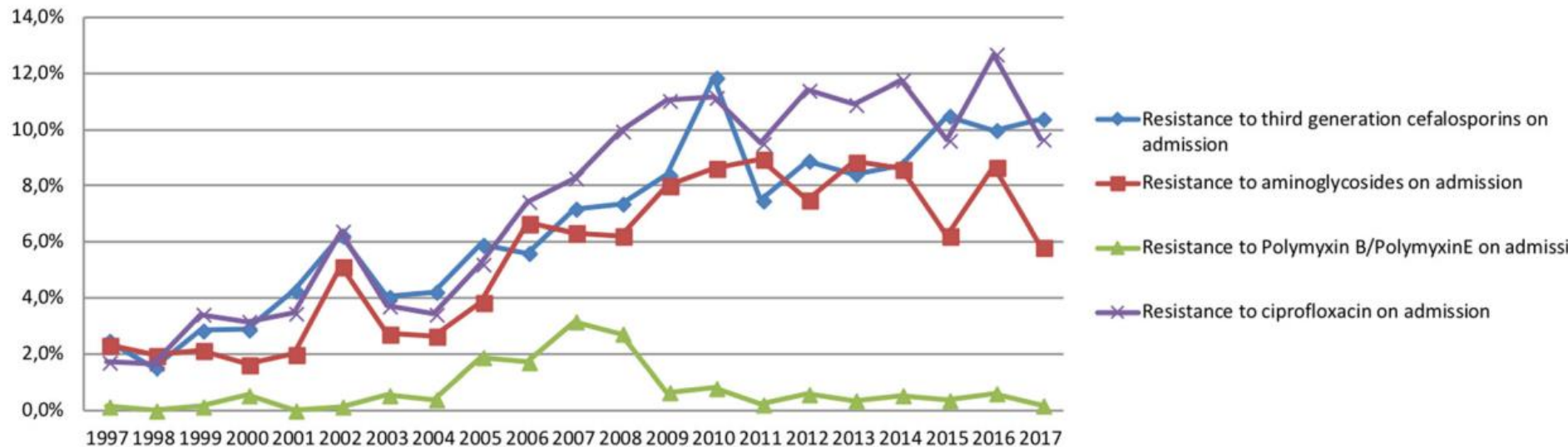


Fig. 3 Admission prevalence rates for resistant antimicrobials per year

Stabilité sur 20 ans de la colonisation à BGN R

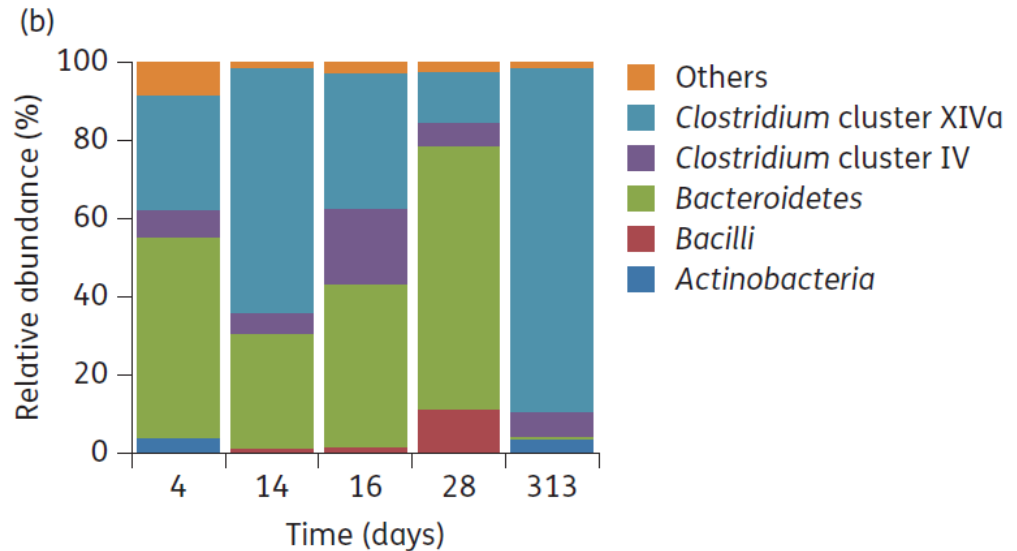
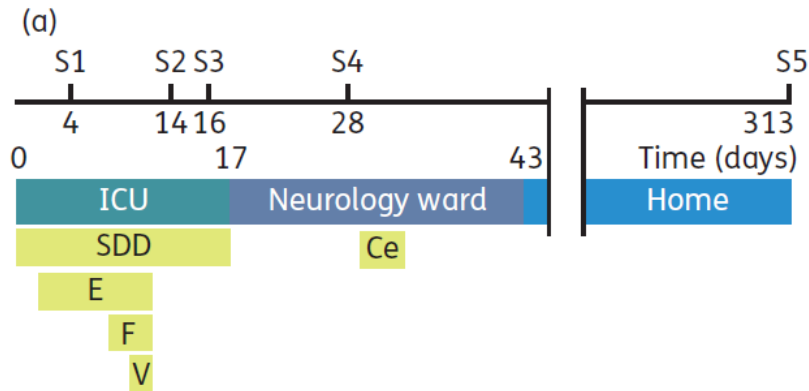
Augmentation des R à l'admission reflétant l'augmentation des R

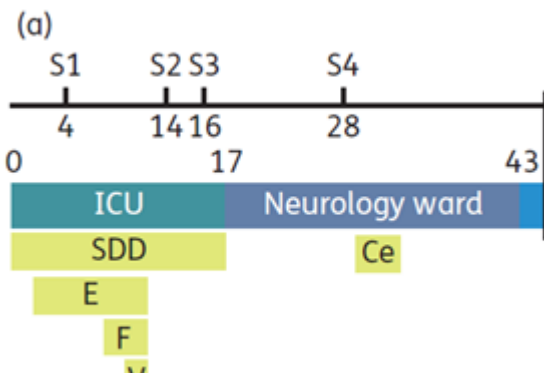
Difficile d'en tirer qq chose car pas de suivi post R, augmentation aux Pays bas difficile à comparer avec d'autres pays pour voir si SDD a changé qq chose

2014

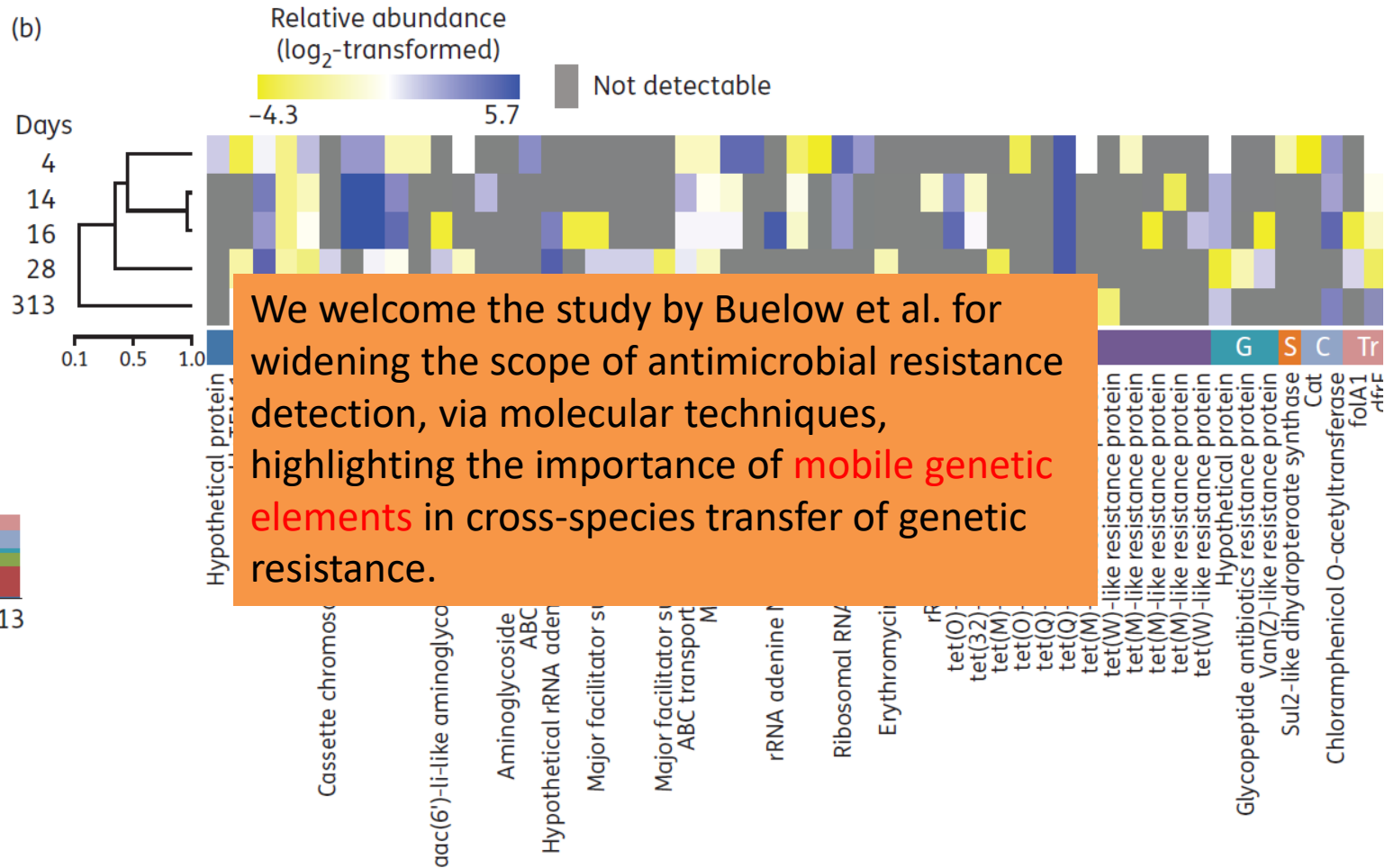
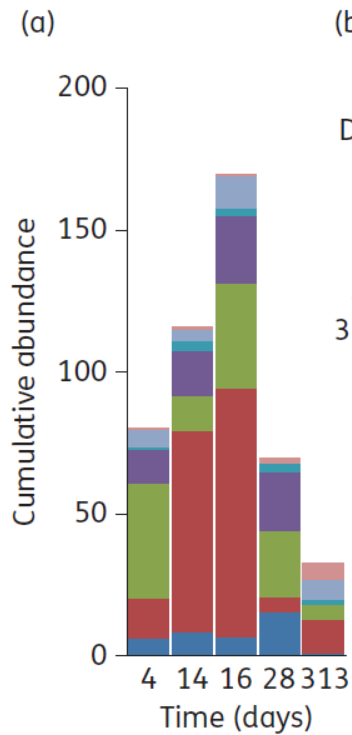
Effects of selective digestive decontamination (SDD) on the gut resistome

Elena Buelow¹, Teresita Bello Gonzalez², Dennis Versluis², Evelien A. N. Oostdijk¹, Lesley A. Ogilvie^{3,4}, Maaïke S. M. van Mourik¹, Els Oosterink¹, Mark W. J. van Passel⁵, Hauke Smidt², Marco Maria D'Andrea⁶, Mark de Been¹, Brian V. Jones^{3,7}, Rob J. L. Willems¹, Marc J. M. Bonten¹ and Willem van Schaik^{1*}





Augmentation des gènes de R de 6 à 7 fois par les aminosides



We welcome the study by Buelow et al. for widening the scope of antimicrobial resistance detection, via molecular techniques, highlighting the importance of **mobile genetic elements** in cross-species transfer of genetic resistance.

Lack of generalizability (outside of the Netherlands)

- ▣ MRSA <1% of *S. aureus* infections
- ▣ VRE <1% of enterococcal infections
- ▣ ESBL <5% of Enterobacteriaceae infections
- ▣ CRE 0%

11:37 - 12:30

Excellence Award Ceremony & Lecture: The modern ICU, are antibiotics used to save the patients or to soothe the minds of...

Chairs: Murat Akova
Gunnar Kahlmeter

11:50
Sunday, 26 April 2015

Hall A

Conclusions, part 1

- In the Netherlands
 - SDD or SOD recommended for routine use in all patients with expected length of stay >2 days
 - Need for careful microbiological monitoring, especially for aminoglycoside/colistin resistance
- Abroad
 - No recommendation for routine use (except in Spain)
 - Well-designed large studies needed
 - R-GNOSIS: 12 ICUs cRTC (CHX-SOD-SDD) started in Oct 2013
 - 2700 patients enrolled (see ePoster EV0363)



Marc J.M. Bonten (Utrecht, NL)

The modern ICU, are antibiotics used to save the patients or to soothe the minds of the doctors?

ECCMID

Conclusion

« La caractéristique la plus frappante de la Terre, c'est la vie et la caractéristique la plus frappante de la vie, c'est sa diversité. »

David Tilman, écologiste, chercheur à l'Université St-Paul (USA), Nature n°405, 2000

