

# AER 2019



**AER**

ACTUALITÉS EN RÉANIMATION

**25<sup>ème</sup> AER : 19 & 20 novembre 2020**

# Réanimation Digestive

## Que retenir de 2019 ?

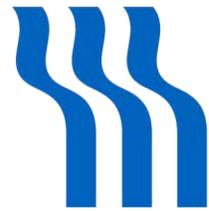
(et aussi des années antérieures...)

Thomas LESCOT  
Département D' Anesthésie-Réanimation  
Hôpital Saint-Antoine (APHP)  
Sorbonne Université  
[thomas.lescot@aphp.fr](mailto:thomas.lescot@aphp.fr)

**Réanimation Digestive**  
**Que retenir de 2019 ?**  
**(et aussi des années antérieures...)**

Thomas LESCOT

# Lien d'intérêt



**FRESENIUS  
KABI**

caring for life

# Plan

Pancréatite aigüe

Infections Intraabdominales

Insuffisance hépatique

Hémorragie digestive

Nutrition Clinique

Période post-opératoire de chirurgie abdominale

# Plan

Pancréatite aigüe

Infections Intraabdominales

Insuffisance hépatique

Hémorragie digestive

Nutrition Clinique

Période post-opératoire de chirurgie abdominale

# Pancréatite aigüe - généralités

Année 1990 - N°100

ISSN 0242-6773

6 décembre 1990

JOURNAL OFFICIEL DE LA RÉPUBLIQUE FRANÇAISE  
ÉDITION DES

DOCUMENTS ADMINISTRATIFS

DIRECTION DES JOURNAUX OFFICIELS  
26, rue Desaix, 75727 PARIS CEDEX 15  
TELEX 201176F DIRJO PARIS



TÉLÉPHONES :  
STANDARD : (1) 40-58-75-00  
ABONNEMENTS : (1) 40-58-77-77

LES RECTIFICATIONS DE L'ORTHOGRAPHE

---

CONSEIL SUPÉRIEUR DE LA LANGUE FRANÇAISE

---

4. *Tréma* : dans les mots suivants, on place le tréma sur la voyelle qui doit être prononcée : **aigüe** (et dérivés, comme **suraigüe**, etc.), **ambigüe**, **exigüe**, **contigüe**, **ambigüité**, **exigüité**, **contigüité**, **cigüe**. Ces mots appliquent ainsi la règle générale : le tréma indique qu'une lettre (*u*) doit être prononcée (comme voyelle ou comme semi-voyelle) séparément de la lettre précédente (*g*). (voir Analyse 3.1.)

## ANNALS *of* SURGERY

VOL. LXXXI

JANUARY, 1925

No. 1

THE EARLY DAYS OF THE ANNALS OF SURGERY

BY WILLIAM WILLIAMS KEEN, M.D.

OF PHILADELPHIA, PA.

EMERITUS PROFESSOR OF SURGERY IN THE JEFFERSON MEDICAL COLLEGE OF PHILADELPHIA  
DOCTOR, HONORIS CAUSA, UNIVERSITY OF PARIS

### ACUTE PANCREATITIS

BY SIR BERKELEY MOYNIHAN, F.R.C.S.

OF LEEDS, ENGLAND

ACUTE pancreatitis is the most terrible of all the calamities that occur in connection with the abdominal viscera. The suddenness of its onset, the illimitable agony which accompanies it, and the mortality attendant upon it, all render it the most formidable of catastrophies. The disease (in accordance with the classification suggested by Fitz, of Boston, one of the greatest of physicians, who first described it in the year 1889) is generally said to be of three types, hemorrhagic, gangrenous and suppurative. The three types differ only in degree. In the most acute form of all, which is rapidly fatal unless an early operation is performed, hemorrhage is found

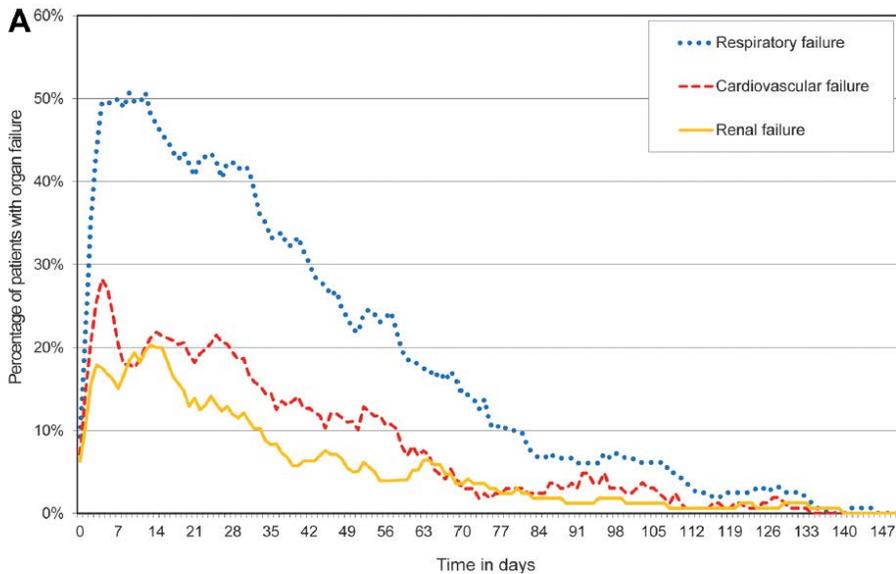
# Impact of characteristics of organ failure and infected necrosis on mortality in necrotising pancreatitis

Nicolien J Schepers,<sup>1</sup> Olaf J Bakker,<sup>2</sup> Marc G Besselink,<sup>3</sup> Usama Ahmed Ali,<sup>4</sup> Thomas L Bollen,<sup>5</sup> Hein G Gooszen,<sup>6</sup> Hjalmar C van Santvoort,<sup>2</sup> Marco J Bruno,<sup>1</sup> for the Dutch Pancreatitis Study Group

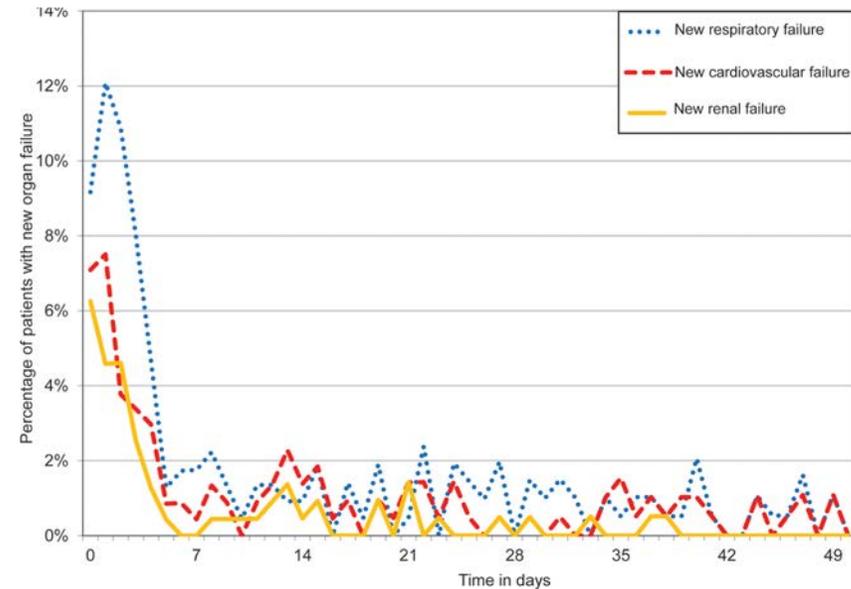
Gut 2019

## 639 Patients with necrotising pancreatitis 38% developed organ failure

% of patients with OF



% of patients with new OF



Respiratory failure  
92 %

cardiovascular failure  
82 %

Renal failure  
44 %

# Impact of characteristics of organ failure and infected necrosis on mortality in necrotising pancreatitis

Gut 2019

Nicolien J Schepers,<sup>1</sup> Olaf J Bakker,<sup>2</sup> Marc G Besselink,<sup>3</sup> Usama Ahmed Ali,<sup>4</sup> Thomas L Bollen,<sup>5</sup> Hein G Gooszen,<sup>6</sup> Hjalmar C van Santvoort,<sup>2</sup> Marco J Bruno,<sup>1</sup> for the Dutch Pancreatitis Study Group

**Table 2** Mortality in different subgroups in 240 patients with organ failure

Subgroups	Mortality (%) in transient organ failure	Mortality (%) in persistent organ failure
<b>Single organ failure</b>		
Any organ system	2/15 (13)	11/53 (21)
Cardiovascular	0/6 (0)	2/4 (50)
Respiratory	0/3 (0)	8/46 (17)
Renal	2/6 (30)	1/3 (33)
<b>Multiple organ failure (any two or more organ systems)</b>	0/6 (0)	72/166 (43)
Any two organ systems	0/6 (0)	39/114 (34)
Cardiovascular and respiratory	0/6 (0)	32/90 (36)
Respiratory and renal	–	7/21 (33)
Renal and cardiovascular	–	0/3 (0)
All three organ systems	–	33/52 (63)

# Pancréatite aigüe – Péridurale thoracique

THE USE OF EPIDURAL BLOCK IN ACUTE PANCREATITIS:  
A REPORT OF EIGHT CASES

R. A. BROWNE, M.B., CH.B., F.F.A.R.C.S. (ENG.), AND  
E. J. ASHWORTH, M.B., B.S. (LOND.)<sup>o</sup>

Can. Anaes. Soc. J., vol. 16, no. 5, September 1969

- Analgesic effect
- Targeted sympathectomy in the anesthetized region
- Splanchnic vasodilatation and an improvement in local microcirculation
- Pulmonary effects

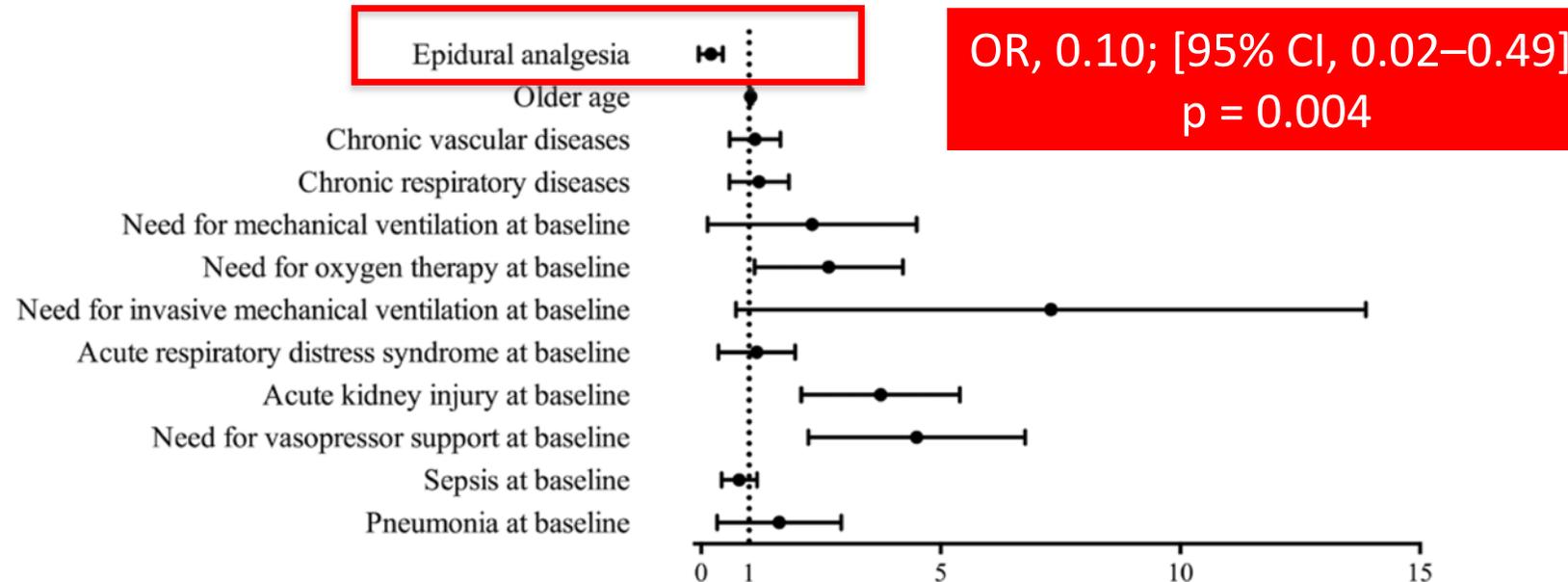
# Pancréatite aigüe – Péridurale thoracique

## Thoracic Epidural Analgesia and Mortality in Acute Pancreatitis: A Multicenter Propensity Analysis

CCM 2018

Matthieu Jabaudon, MD, PhD<sup>1,2</sup>; Nouria Belhadj-Tahar, MD<sup>3</sup>; Thomas Rimmelé, MD, PhD<sup>4</sup>;  
Olivier Joannes-Boyau, MD<sup>5</sup>; Stéphanie Bulyez, MD<sup>1</sup>; Jean-Yves Lefrant, MD, PhD<sup>6</sup>;  
Yannick Malledant, MD, PhD<sup>7</sup>; Marc Leone, MD, PhD<sup>8</sup>; Paer-Selim Abback, MD, MSc<sup>9</sup>;  
Fabienne Tamion, MD, PhD<sup>10</sup>; Hervé Dupont, MD, PhD<sup>11</sup>; Brice Lortat-Jacob, MD<sup>12</sup>;  
Philippe Guerci, MD<sup>13</sup>; Thomas Kerforné, MD<sup>14</sup>; Raphael Cinotti, MD<sup>15</sup>; Laurent Jacob, MD, PhD<sup>16</sup>;  
Philippe Verdier, MD<sup>17</sup>; Thierry Dugernier, MD, PhD<sup>18</sup>; Bruno Pereira, PhD<sup>19</sup>;  
Jean-Michel Constantin, MD, PhD<sup>1,2</sup>; Azurea Network

Multicenter retrospective, observational, cohort study  
1003 **ICU** patients with acute pancreatitis  
30-day mortality



# Pancréatite aigüe – Péridurale thoracique

Open Access

Protocol

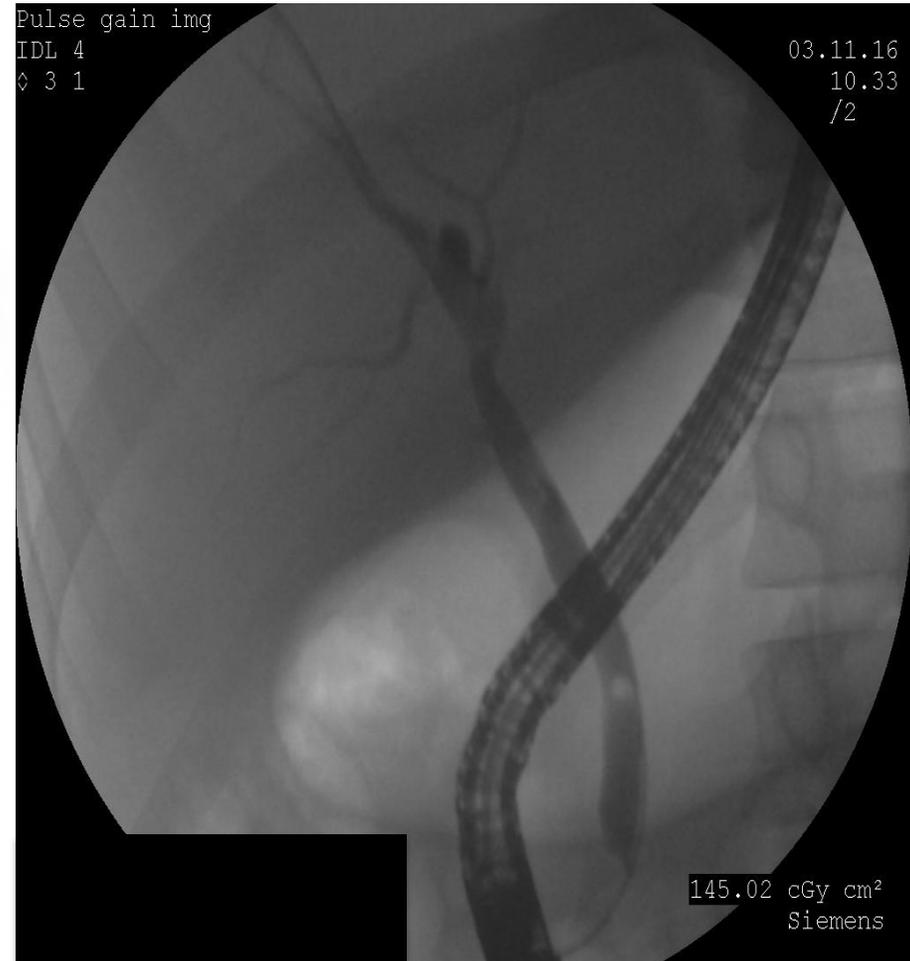
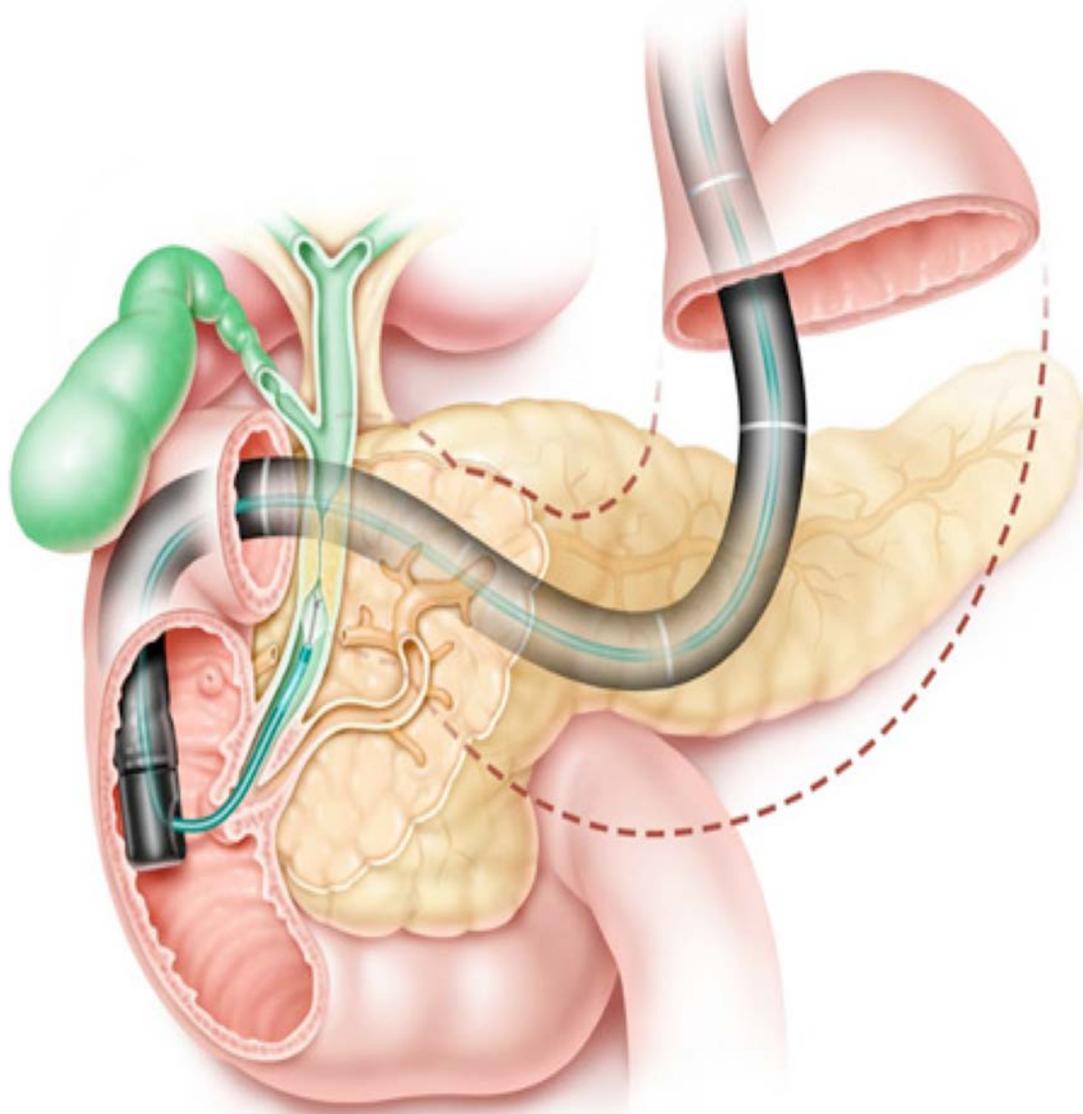
## **BMJ Open** Epidural analgesia in critically ill patients with acute pancreatitis: the multicentre randomised controlled EPIPAN study protocol

---

Stéphanie Bulyez,<sup>1</sup> Bruno Pereira,<sup>2</sup> Elodie Caumon,<sup>2</sup> Etienne Imhoff,<sup>1</sup> Laurence Roszyk,<sup>3,4</sup> Lise Bernard,<sup>5,6</sup> Leo Bühler,<sup>7</sup> Claudia Heidegger,<sup>8</sup> Samir Jaber,<sup>9</sup> Jean-Yves Lefrant,<sup>10</sup> Russell Chabanne,<sup>1</sup> Pierre-Marie Bertrand,<sup>11</sup> Pierre-François Laterre,<sup>12</sup> Philippe Guerci,<sup>13</sup> Pierre-Eric Danin,<sup>14</sup> Etienne Escudier,<sup>15</sup> Achille Sossou,<sup>16</sup> Dominique Morand,<sup>2</sup> Vincent Sapin,<sup>3,4</sup> Jean-Michel Constantin,<sup>1,4</sup> Matthieu Jabaudon,<sup>1,4</sup> on behalf of the EPIPAN study group and the AzuRea network

En cours

# Pancréatite aigüe – CPRE: indications et timing



# Pancréatite aigüe – CPRE: indications et timing

## Gallstone pancreatitis

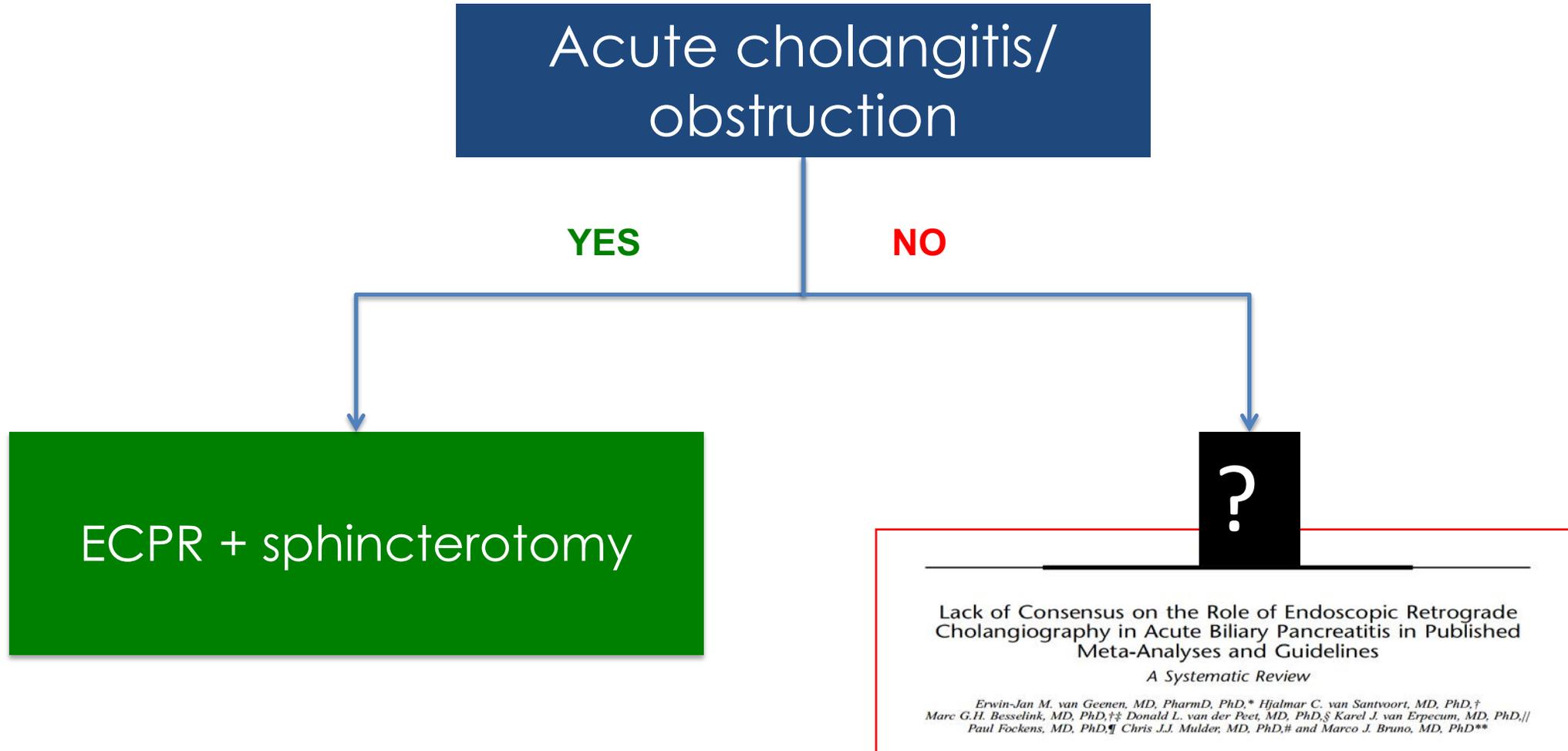
Acute cholangitis/  
obstruction

### Challenging diagnosis

- SIRS
- Charcot's triad
- expert opinion
- Tokyo guidelines (TG13)

# Pancréatite aigüe – CPRE: indications et timing

## Gallstone pancreatitis



# Pancréatite aigüe – CPRE: indications et timing

Schepers et al. *Trials* (2016) 17:5  
DOI 10.1186/s13063-015-1132-0

Trials

STUDY PROTOCOL

Open Access



## Early biliary decompression versus conservative treatment in acute biliary pancreatitis (APEC trial): study protocol for a randomized controlled trial



Nicolien J. Schepers<sup>1,2\*</sup>, Olaf J. Bakker<sup>3</sup>, Marc G. H. Besselink<sup>4</sup>, Thomas L. Bollen<sup>5</sup>, Marcel G. W. Dijkgraaf<sup>6</sup>, Casper H. J. van Eijck<sup>7</sup>, Paul Fockens<sup>8</sup>, Erwin J. M. van Geenen<sup>9</sup>, Janneke van Grinsven<sup>4,8</sup>, Nora D. L. Hallensleben<sup>1,10</sup>, Bettina E. Hansen<sup>1</sup>, Hjalmar C. van Santvoort<sup>10</sup>, Robin Timmer<sup>1</sup>, Marie-Paule G. F. Anten<sup>11</sup>, Clemens J. M. Bolwerk<sup>12</sup>, Foke van Delft<sup>13</sup>, Hendrik M. van Dullemen<sup>14</sup>, G. Willemien Erkelens<sup>15</sup>, Jeanin E. van Hooff<sup>8</sup>, Robert Laheij<sup>16</sup>, René W. M. van der Hulst<sup>17</sup>, Jeroen M. Jansen<sup>18</sup>, Frank J. G. M. Kubben<sup>19</sup>, Sjoerd D. Kuiken<sup>20</sup>, Lars E. Perk<sup>21</sup>, Rogier J. J. de Ridder<sup>22</sup>, Mamo C. M. Rijk<sup>23</sup>, Tessa E. H. Römkens<sup>24</sup>, Erik J. Schoon<sup>25</sup>, Matthijs P. Schwartz<sup>26</sup>, B. W. Marcel Spanier<sup>27</sup>, Adriaan C. I. T. L. Tan<sup>28</sup>, Willem J. Thijs<sup>29</sup>, Niels G. Venneman<sup>30</sup>, Frank P. Vleggaar<sup>31</sup>, Wim van de Vrie<sup>32</sup>, Ben J. Witteman<sup>33</sup>, Hein G. Gooszen<sup>34</sup>, Marco J. Bruno<sup>1</sup> and for the Dutch Pancreatitis Study Group

**Methods/Design:** The APEC trial is a randomized controlled, parallel group, superiority multicenter trial. Within 24 hours after presentation to the emergency department, patients with biliary pancreatitis without cholangitis and at high risk for complications, based on an Acute Physiology and Chronic Health Evaluation (APACHE-II) score of 8 or greater, Modified Glasgow score of 3 or greater, or serum C-reactive protein above 150 mg/L, will be randomized. In 27 hospitals of the Dutch Pancreatitis Study Group, 232 patients will be allocated to early ERC with sphincterotomy or to conservative treatment. The primary endpoint is a composite of major complications (that is, organ failure, pancreatic necrosis, pneumonia, bacteremia, cholangitis, pancreatic endocrine, or exocrine insufficiency) or death within 180 days after randomization. Secondary endpoints include ERC-related complications,

# Pancréatite aigüe – CPRE: indications et timing

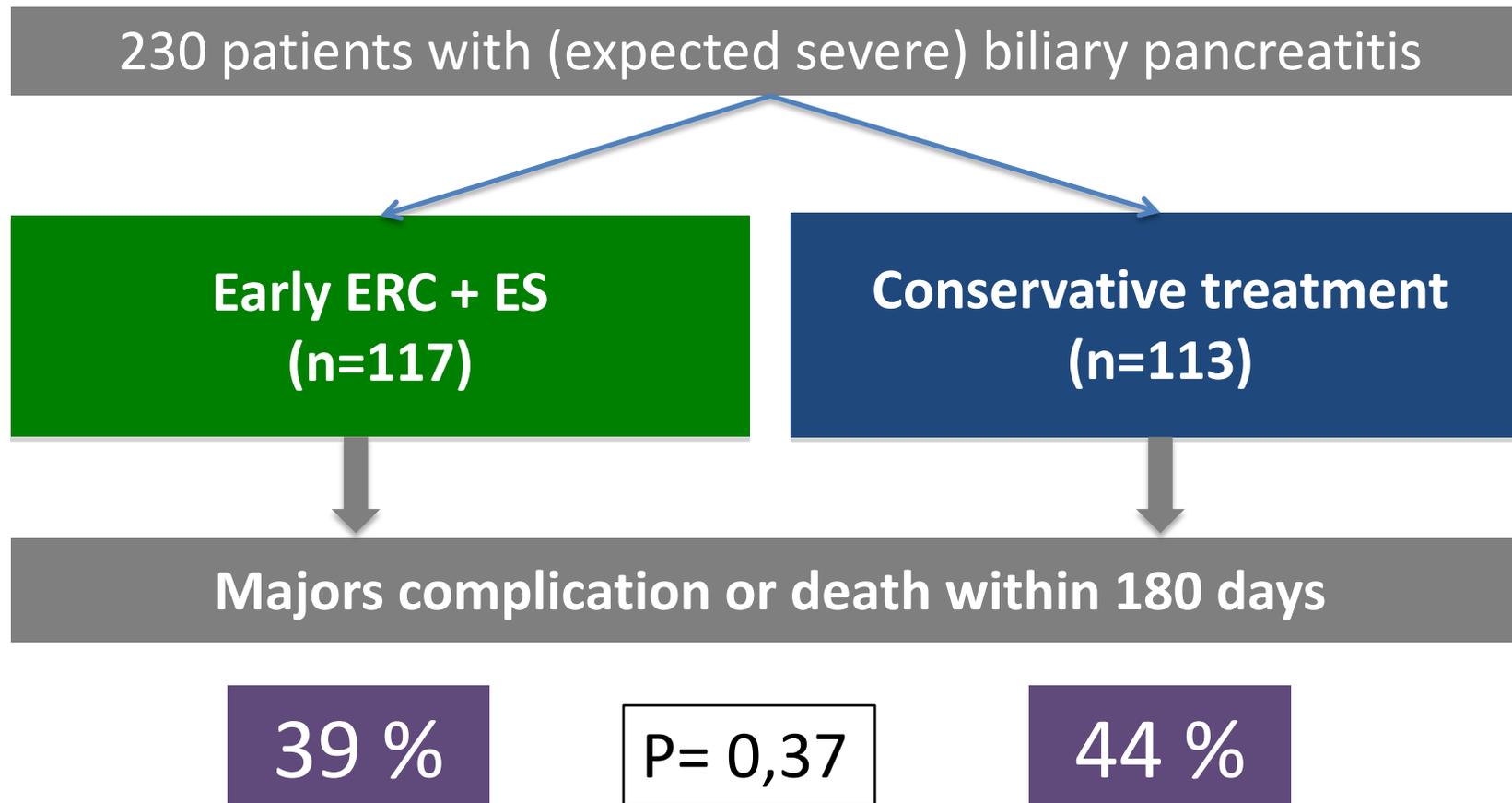
STUDY PROTOCOL

Open Access



Early biliary decompression versus conservative treatment in acute biliary pancreatitis (APEC trial): study protocol for a randomized controlled trial

*Abstract– Gastroenterology 2019*

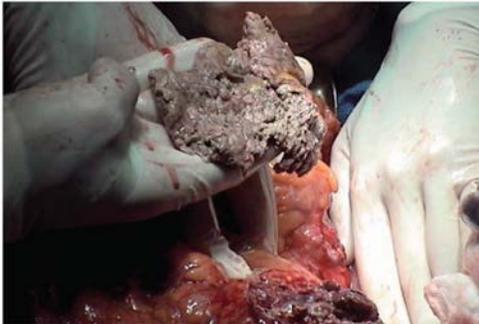


# Pancréatite aiguë – CPRE: indications et timing

- Urgent (> 24 jours) ERCP and biliary drainage in patients with acute biliary pancreatitis combined with cholangitis
- ERCP should be performed within 72 hours in patients ongoing biliary obstruction
- It should not be performed in patient with acute biliary pancreatitis and neither cholangitis or ongoing duct obstruction

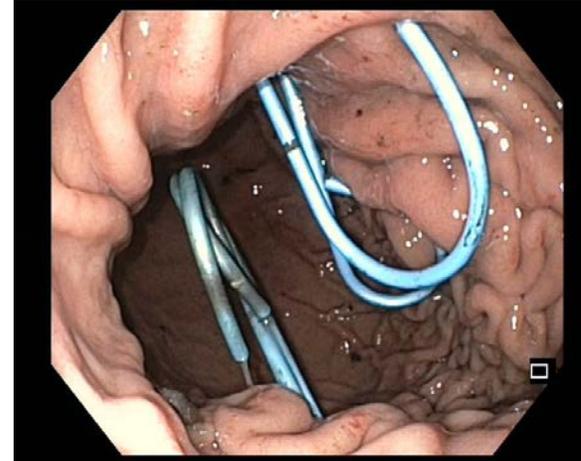
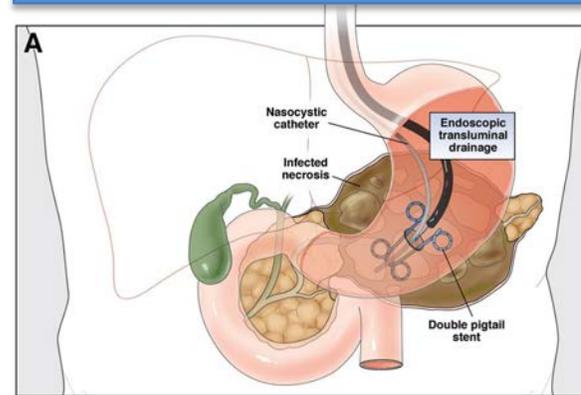
# Pancréatite aigüe – Nécrosectomie

## CHIRURGIE

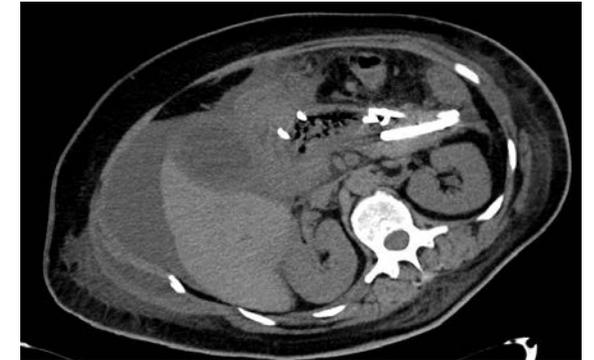


## TECHNIQUES MINI INVASIVES

### Necrosectomie transgastrique



### Drainage radioguidé



Van Santvoort, NEJM 2010  
Bakker OJ, JAMA 2012  
Van Brunschot Lancet 2017

# Pancréatite aigüe – Nécrosectomie

RESEARCH

Open Access

Minimally invasive drainage in critically ill patients with severe necrotizing pancreatitis is associated with better outcomes: an observational study

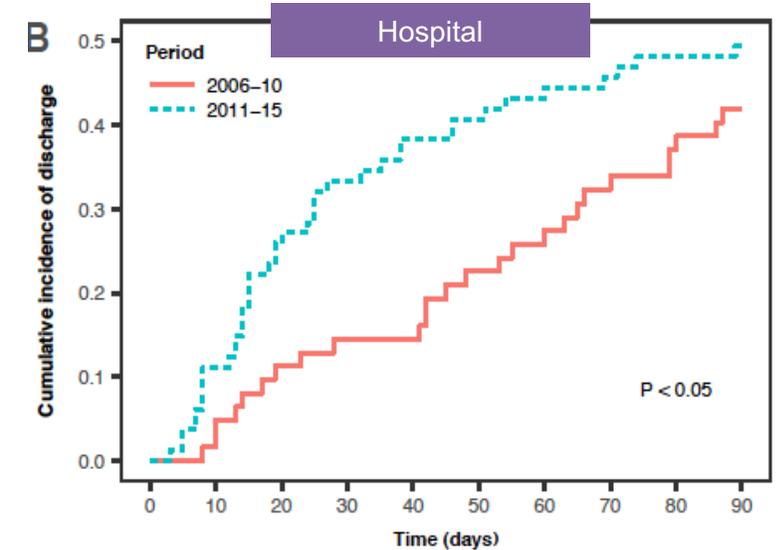
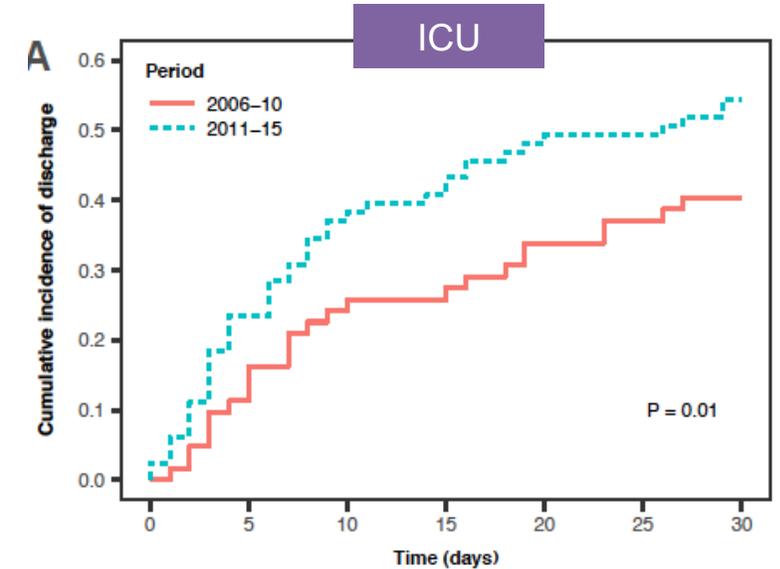
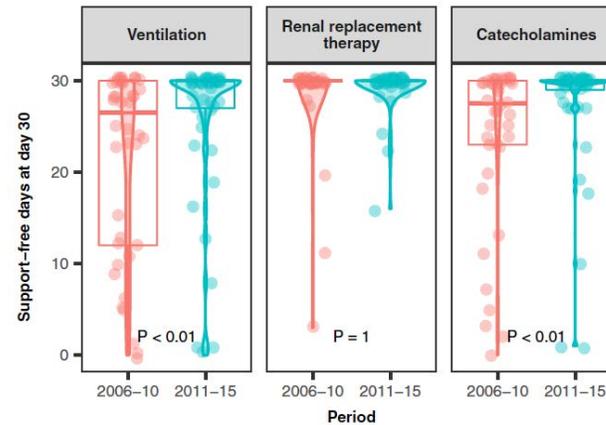
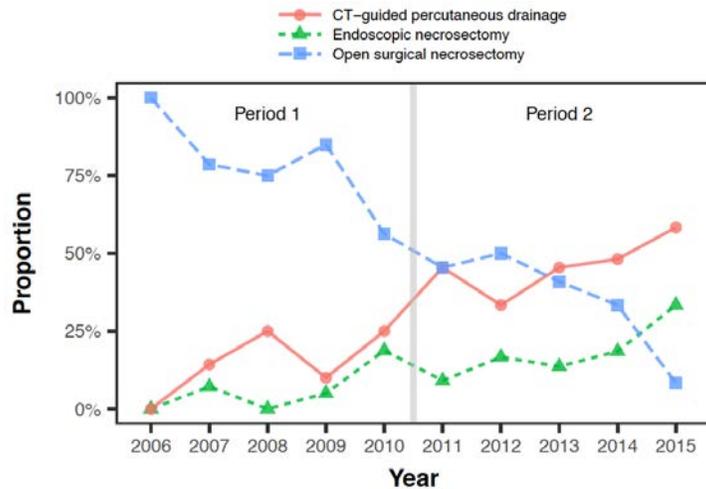


Lucie Darrivere<sup>1</sup>, Nathanael Lapidus<sup>2</sup>, Nikias Colignon<sup>3</sup>, Najim Chafai<sup>4</sup>, Ulriikka Chaput<sup>5</sup>, Franck Verdonk<sup>6</sup>, François Paye<sup>7</sup> and Thomas Lescot<sup>8\*</sup>

Critical Care 2018

Cohorte monocentrique (143 pts)

Avant / Après implémentation des techniques mini invasives



# Pancréatite aigüe – Nécrosectomie

A suivre...

Grinsven *et al. Trials* (2019) 20:239  
<https://doi.org/10.1186/s13063-019-3315-6>

Trials

STUDY PROTOCOL

Open Access

## Postponed or immediate drainage of infected necrotizing pancreatitis (POINTER trial): study protocol for a randomized controlled trial



Janneke van Grinsven<sup>1,2\*</sup> , Sven M. van Dijk<sup>1,2</sup>, Marcel G. Dijkgraaf<sup>3</sup>, Marja A. Boermeester<sup>1</sup>, Thomas L. Bollen<sup>4</sup>, Marco J. Bruno<sup>5</sup>, Sandra van Brunschot<sup>6,7</sup>, Cornelis H. Dejong<sup>8,9</sup>, Casper H. van Eijck<sup>10</sup>, Krijn P. van Lienden<sup>11</sup>, Djamila Boerma<sup>2</sup>, Peter van Duijvendijk<sup>12</sup>, Muhammed Hadithi<sup>13</sup>, Jan Willem Haveman<sup>14</sup>, René W. van der Hulst<sup>15</sup>, Jeroen M. Jansen<sup>16</sup>, Daan J. Lips<sup>17</sup>, Eric R. Manusama<sup>18</sup>, I. Quintus Molenaar<sup>7</sup>, Donald L. van der Peet<sup>19</sup>, Alexander C. Poen<sup>20</sup>, Rutger Quispel<sup>21</sup>, Alexander F. Schaapherder<sup>22</sup>, Erik J. Schoon<sup>23</sup>, Matthijs P. Schwartz<sup>24</sup>, Tom C. Seerden<sup>25</sup>, B. W. Marcel Spanier<sup>26</sup>, Jan Willem Straathof<sup>27</sup>, Niels G. Venneman<sup>28</sup>, Wim van de Vrie<sup>29</sup>, Ben J. Witteman<sup>30</sup>, Harry van Goo<sup>31</sup>, Paul Fockens<sup>6</sup>, Hjalmar C. van Santvoort<sup>2,7†</sup>, Marc G. Besselink<sup>1\*†</sup> and for the Dutch Pancreatitis Study Group

# Plan

Pancréatite aigüe

Infections Intraabdominales

Insuffisance hépatique

Hémorragie digestive

Nutrition Clinique

Période post-opératoire de chirurgie abdominale

# Infections intra-abdominales



Short-course antibiotic therapy for critically ill patients treated for postoperative intra-abdominal infection: the DURAPOP randomised clinical trial

ICM 2018

Philippe Montravers<sup>1,18\*</sup>, Florence Tubach<sup>2</sup>, Thomas Lescot<sup>3</sup>, Benoit Veber<sup>4</sup>, Marina Esposito-Farèse<sup>5</sup>, Philippe Seguin<sup>6</sup>, Catherine Paugam<sup>7</sup>, Alain Lepape<sup>8</sup>, Claude Meistelman<sup>9</sup>, Joel Cousson<sup>10</sup>, Antoine Tesniere<sup>11</sup>, Gaetan Planteveve<sup>12</sup>, Gilles Blasco<sup>13</sup>, Karim Asehnoune<sup>14</sup>, Samir Jaber<sup>15</sup>, Sigismund Lasocki<sup>16</sup>, Herve Dupont<sup>17</sup> and For the DURAPOP Trial Group

Comparaison de la durée du traitement antibiotique des patients hospitalisés en réanimation pour péritonite post opératoire

8 jours (120 pts) vs 15 jours (116 pts)

=> Nombre de jours sans antibiotiques à J28

Primary and secondary outcomes	15-day arm (n=116)	8-day arm (n=120)	Odd-ratios (95%CI)	P value
<b>Primary outcome</b>				
Antibiotic-free days on Day28, median [IQR] <sup>a</sup>	12 [6—13]	15 [6—20]	1.08 (1.04—1.125)	1.9 x 10 <sup>-4</sup>
<b>Secondary outcome</b>				
Length of ICU stay between Day0 and Day45, median [IQR] <sup>b</sup>	12 [7—20]	13 [7.75—25]	1.02 (0.99—1.04)	0.14
Length of hospital stay between Day0 and Day45, median [IQR] <sup>c</sup>	30 [20—45]	30.5 [18.75—45]	0.80 (0.46—1.38)	0.42
<b>Secondary outcomes</b>				
Organ failure on Day15, n (%) <sup>d</sup>	17/96 (18)	15/90 (17)	1.08 (0.47—2.50)	1.00
Organ failure on Day28, n (%) <sup>e</sup>	4/60 (5)	3/63 (6)	0.78 (0.11—4.82)	1.00
45-day mortality, n (%)	17/116 (15)	13/120 (11)	0.71 (0.30—1.64)	0.43
Additional source control between Day8 and Day45, n (%)	34/116 (28)	48/120 (40)	1.61 (0.90—2.87)	0.101
Reoperations between Day8 and Day45, n (%)	27/166 (23)	31/120 (26)	1.15 (0.61—2.17)	0.65
Percutaneous drainages between Day8 and Day45, n (%)	11/116 (9)	23/120 (19)	2.26 (0.99—5.41)	0.041
Recurrent infection, n (%) <sup>f</sup>	13/14 (93)	14/19 (74)	0.22 (0.004—2.40)	0.21
Superinfection, n (%) <sup>f</sup>	11/32 (34)	14/44 (32)	0.65 (0.05—5.52)	1
New antibiotic therapy, n (%)	45/116 (39)	51/120 (42)	1.17 (0.67—2.03)	0.59
New antibiotic therapy between Day16 and Day28, n (%)	25/102 (25)	29/106 (27)	1.16 (0.56—2.27)	0.75
Bacteraemia between Day8 and Day45, n (%)	5/116 (4)	13/120 (11)	2.69 (0.86—9.96)	0.059
Clinical failure between Day8 and Day45, n (%)	16 (14)	28 (24)	1.18 (0.68—2.05)	0.54
Microbiological failure between Day8 and Day45, n (%)	18 (16)	28 (23)	1.65 (0.82—3.40)	0.13
Emergence of MDR bacteria in surveillance samples, n (%) <sup>g</sup>	23/104 (22)	20/107 (19)	0.81 (0.39—1.67)	0.54
Emergence of MDR bacteria in clinical isolates, n (%) <sup>d</sup>	40/104 (38)	38/108 (35)	0.87 (0.47—1.58)	0.72
Emergence of MDR bacteria in both surveillance samples and clinical isolates confounded, n (%) <sup>g</sup>	52/104 (50)	46/108 (43)	0.74 (0.41—1.32)	0.28
Emergence of fungi, n (%) <sup>g</sup>	27/106 (25)	22/107 (21)	0.75 (0.37—1.51)	0.39



# Epidemiology of intra-abdominal infection and sepsis in critically ill patients: “AbSeS”, a multinational observational cohort study and ESICM Trials Group Project

Stijn Blot<sup>1\*</sup>, Massimo Antonelli<sup>2,3</sup>, Kostoula Arvaniti<sup>4</sup>, Koen Blot<sup>1</sup>, Ben Creagh-Brown<sup>5,6</sup>, Dylan de Lange<sup>7</sup>, Jan De Waele<sup>8</sup>, Mieke Deschepper<sup>9</sup>, Yalim Dikmen<sup>10</sup>, George Dimopoulos<sup>11</sup>, Christian Eckmann<sup>12</sup>, Guy Francois<sup>13</sup>, Massimo Girardis<sup>14</sup>, Despoina Koulenti<sup>15,16</sup>, Sonia Labeau<sup>1,17</sup>, Jeffrey Lipman<sup>18,19</sup>, Fernando Lipovestky<sup>20</sup>, Emilio Maseda<sup>21</sup>, Philippe Montravers<sup>22,23</sup>, Adam Mikstacki<sup>24,25</sup>, José-Artur Paiva<sup>26</sup>, Cecilia Pereyra<sup>27</sup>, Jordi Rello<sup>28</sup>, Jean-Francois Timsit<sup>29,30</sup>, Dirk Vogelaers<sup>31</sup> and the Abdominal Sepsis Study (AbSeS) group on behalf of the Trials Group of the European Society of Intensive Care Medicine

=> To describe the epidemiology of intra-abdominal infection in an international cohort of **2621 ICU patients**

Antibiotic-resistant pathogen	Total cohort (n = 1982)	Geographic region							
		Western Europe (n = 601)	Southern Europe (n = 558)	Eastern and South-East Europe (n = 151)	Central Europe (n = 99)	North Africa and Middle-East (n = 172)	Latin America (n = 249)	North America (n = 22)	Asia-Pacific (n = 123)
Difficult-to-treat resistant Gram-negative bacteria	85 (4.3)	2 (0.3)	38 (6.8)	9 (6)	0	15 (8.7)	16 (6.4)	0	5 (4.1)
Any resistant Gram-negative bacteria*	480 (24.2)	54 (9)	140 (25.1)	59 (39.1)	20 (20.2)	82 (47.7)	90 (36.1)	7 (31.8)	26 (21.1)
ESBL-producing Gram-negative bacteria	326 (16.4)	37 (6.2)	81 (14.5)	37 (24.5)	9 (9.1)	65 (37.8)	69 (27.7)	7 (31.8)	20 (16.3)
Carbapenem-resistant Gram-negative bacteria	145 (7.3)	3 (0.5)	61 (10.9)	23 (15.2)	1 (1)	23 (13.4)	25 (10)	0	9 (7.3)



# Epidemiology of intra-abdominal infection and sepsis in critically ill patients: “AbSeS”, a multinational observational cohort study and ESICM Trials Group Project

Stijn Blot<sup>1\*</sup>, Massimo Antonelli<sup>2,3</sup>, Kostoula Arvaniti<sup>4</sup>, Koen Blot<sup>1</sup>, Ben Creagh-Brown<sup>5,6</sup>, Dylan de Lange<sup>7</sup>, Jan De Waele<sup>8</sup>, Mieke Deschepper<sup>9</sup>, Yalim Dikmen<sup>10</sup>, George Dimopoulos<sup>11</sup>, Christian Eckmann<sup>12</sup>, Guy Francois<sup>13</sup>, Massimo Girardis<sup>14</sup>, Despoina Koulenti<sup>15,16</sup>, Sonia Labeau<sup>1,17</sup>, Jeffrey Lipman<sup>18,19</sup>, Fernando Lipovestky<sup>20</sup>, Emilio Maseda<sup>21</sup>, Philippe Montravers<sup>22,23</sup>, Adam Mikstacki<sup>24,25</sup>, José-Artur Paiva<sup>26</sup>, Cecilia Pereyra<sup>27</sup>, Jordi Rello<sup>28</sup>, Jean-Francois Timsit<sup>29,30</sup>, Dirk Vogelaers<sup>31</sup> and the Abdominal Sepsis Study (AbSeS) group on behalf of the Trials Group of the European Society of Intensive Care Medicine

=> To describe the epidemiology of intra-abdominal infection in an international cohort of **2621 ICU patients**

Antibiotic-resistant pathogen	Total cohort (n = 1982)	Geographic region							
		Western Europe (n = 601)	Southern Europe (n = 558)	Eastern and South-East Europe (n = 151)	Central Europe (n = 99)	North Africa and Middle-East (n = 172)	Latin America (n = 249)	North America (n = 22)	Asia-Pacific (n = 123)
Difficult-to-treat resistant Gram-negative bacteria	85 (4.3)	2 (0.3)	38 (6.8)	9 (6)	0	15 (8.7)	16 (6.4)	0	5 (4.1)
Any resistant Gram-negative bacteria*	480 (24.2)	54 (9)	140 (25.1)	59 (39.1)	20 (20.2)	82 (47.7)	90 (36.1)	7 (31.8)	26 (21.1)
ESBL-producing Gram-negative bacteria	326 (16.4)	37 (6.2)	81 (14.5)	37 (24.5)	9 (9.1)	65 (37.8)	69 (27.7)	7 (31.8)	20 (16.3)
Carbapenem-resistant Gram-negative bacteria	145 (7.3)	3 (0.5)	61 (10.9)	23 (15.2)	1 (1)	23 (13.4)	25 (10)	0	9 (7.3)



# Epidemiology of intra-abdominal infection and sepsis in critically ill patients: “AbSeS”, a multinational observational cohort study and ESICM Trials Group Project

Stijn Blot<sup>1\*</sup>, Massimo Antonelli<sup>2,3</sup>, Kostoula Arvaniti<sup>4</sup>, Koen Blot<sup>1</sup>, Ben Creagh-Brown<sup>5,6</sup>, Dylan de Lange<sup>7</sup>, Jan De Waele<sup>8</sup>, Mieke Deschepper<sup>9</sup>, Yalim Dikmen<sup>10</sup>, George Dimopoulos<sup>11</sup>, Christian Eckmann<sup>12</sup>, Guy Francois<sup>13</sup>, Massimo Girardis<sup>14</sup>, Despoina Koulenti<sup>15,16</sup>, Sonia Labeau<sup>1,17</sup>, Jeffrey Lipman<sup>18,19</sup>, Fernando Lipovestky<sup>20</sup>, Emilio Maseda<sup>21</sup>, Philippe Montravers<sup>22,23</sup>, Adam Mikstacki<sup>24,25</sup>, José-Artur Paiva<sup>26</sup>, Cecilia Pereyra<sup>27</sup>, Jordi Rello<sup>28</sup>, Jean-Francois Timsit<sup>29,30</sup>, Dirk Vogelaers<sup>31</sup> and the Abdominal Sepsis Study (AbSeS) group on behalf of the Trials Group of the European Society of Intensive Care Medicine

=> To describe the epidemiology of intra-abdominal infection in an international cohort of **2621 ICU patients**

Variable	Model with source control achievement* OR (95% CI)	Model without source control achievement** OR (95% CI)
Setting of infection acquisition		
Community-acquired infection	Reference	Reference
Early onset hospital-acquired infection ( $\leq 7$ days)	1.15 (0.84–1.58)	1.18 (0.88–1.59)
Late-onset hospital-acquired infection ( $> 7$ days)	1.76 (1.34–2.32)	1.76 (1.36–2.30)
Anatomical disruption		
No anatomical barrier disruption	Reference	Reference
Anatomical disruption with localized peritonitis	1.28 (0.95–1.75)	1.26 (0.95–1.69)
Anatomical disruption with diffuse peritonitis	1.99 (1.49–2.67)	2.04 (1.55–2.70)
Severity of disease expression		
Infection	Reference	Reference
Sepsis	2.44 (1.37–4.66)	2.28 (1.31–4.28)
Septic shock	5.22 (2.91–10)	4.93 (2.80–9.30)
Age (per year increase)	1.03 (1.02–1.04)	1.03 (1.03–1.04)
Underlying conditions		
Malnutrition (body mass index $< 20$ )	2.07 (1.34–3.17)	2.15 (1.43–3.21)
Diabetes mellitus	1.31 (0.99–1.73)	1.32 (1.01–1.72)
Liver failure	2.03 (1.23–3.33)	2.50 (1.55–4.02)
Congestive heart failure	1.86 (1.24–2.81)	1.92 (1.31–2.81)
Empiric antimicrobial coverage		
Anti-MRSA agent	0.77 (0.59–1)	0.77 (0.59–0.98)
Double anaerobe coverage	–	1.28 (0.97–1.71)
Source control achievement at day 7		
Success	Reference	–
Failure, persistent signs of inflammation	4.85 (3.79–6.22)	–
Failure, additional intervention required following initial approach	1.93 (1.41–2.65)	–

# Plan

Pancréatite aigüe

Infections Intraabdominales

Insuffisance hépatique

Hémorragie digestive

Nutrition Clinique

Période post-opératoire de chirurgie abdominale

# Insuffisance hépatique – RFE 2018



Recommandations formalisées d'experts

## INSUFFISANCE HEPATIQUE EN SOINS CRITIQUES

RFE commune SFAR – AFEF

Société Française d'Anesthésie et de Réanimation

Association Française pour l'Etude du Foie

LIVER FAILURE IN INTENSIVE CARE UNIT

G Model  
ACCPM-567; No. of Pages 19

ARTICLE IN PRESS

Anaesth Crit Care Pain Med xxx (2019) xxx-xxx



Société Française d'Anesthésie et de Réanimation



Guidelines

Management of liver failure in general intensive care unit<sup>☆,☆☆</sup>

C. Paugam-Burtz<sup>1,2</sup>, E. Levesque<sup>3,4</sup>, A. Louvet<sup>5</sup>, D. Thabut<sup>6</sup>, R. Amathieu<sup>7,8</sup>,  
C. Bureau<sup>9,10,11</sup>, C. Camus<sup>12</sup>, G. Chanques<sup>13</sup>, S. Faure<sup>14</sup>, M. Ferrandière<sup>15</sup>, C. Francoz<sup>16,17</sup>,  
A. Galbois<sup>18</sup>, T. Gustot<sup>19,20</sup>, C. Ichai<sup>21</sup>, P. Ichai<sup>22,23,24</sup>, S. Jaber<sup>25</sup>, T. Lescot<sup>26</sup>,  
R. Moreau<sup>27,28,29,30</sup>, S. Roulet<sup>31,32</sup>, F. Saliba<sup>33</sup>, T. Thévenot<sup>34</sup>, L. Velly<sup>35,36</sup>, E. Weiss<sup>37,38,\*</sup>

<sup>1</sup> Department of Anaesthesiology and Critical Care, Beaujon Hospital, DMU Parabol, AP-HP Nord, Université de Paris, 92110 Clichy, France

<sup>2</sup> UMR\_S1149, Centre de recherche sur l'inflammation, Inserm, Université de Paris, France

<sup>3</sup> Department of Anaesthesiology and Critical Care, Henri-Mondor Hospital, Assistance Publique-Hôpitaux de Paris, 94010 Créteil, France

<sup>4</sup> EA Dynamyc UPEC, ENVA Faculté de Médecine de Créteil, 94000 Créteil, France

<sup>5</sup> Department of Digestive Diseases, Claude Huriez Hospital, 59037 Lille, France

<sup>6</sup> Department of Hepatology, Pitié-Salpêtrière Hospital, Assistance publique-Hôpitaux de Paris, 75013 Paris, France

<sup>7</sup> Université Paris 13-UFR SMBH-CNRS UMR 7244, Paris, France

<sup>8</sup> Critical Care Department, Diaconesses Croix Saint Simon Hospital Group, 75020 Paris, France

<sup>9</sup> Department of Hepatology, Purpan Hospital, Toulouse University Hospital, 31300 Toulouse, France

<sup>10</sup> Institut Cardiomet, Cardiovascular and Metabolic Department, Rangueil Hospital, TSA 50032, 31059 Toulouse cedex 9, France

<sup>11</sup> Paul Sabatier University, 31330 Toulouse, France

<sup>12</sup> Department of Infectious Diseases and Medical Resuscitation, Rennes University Hospital, 35000 Rennes, France

<sup>13</sup> Department of Anaesthesia and Intensive Care, Saint Eloi Montpellier University Hospital, and PhyMedExp, University of Montpellier, INSERM, CNRS, 34295 Montpellier cedex 5, France

<sup>14</sup> Department of Hepatology, Saint Eloi Montpellier University Hospital, 34090 Montpellier, France

<sup>15</sup> Surgical Intensive Care Unit, Tours University Hospital, 37044 Tours cedex 9, France

<sup>16</sup> Department of Hepatology, Beaujon Hospital, AP-HP, 92110 Clichy, France

<sup>17</sup> UMR\_S1149, Centre de recherche sur l'inflammation, INSERM et Paris Diderot University, 75013 Paris, France

<sup>18</sup> Ramsay Générale de Santé, Claude Galien Private Hospital, Department of Polyvalent Resuscitation, 91480 Quincy-sous-Sénart, France

<sup>19</sup> Department of Gastroenterology and Hepato-Pancreatology, Erasme Hospital, Route de Lennik, 808, 1070 Bruxelles, Belgium

<sup>20</sup> Laboratory of Experimental Gastroenterology, Faculté de Médecine, Université Libre de Bruxelles, avenue Franklin-Roosevelt, 50, 1050 Bruxelles, Belgium

<sup>21</sup> University of Côte D'Azur, Nice University Hospital, Department of Polyvalent Resuscitation, Pasteur 2 Hospital, 06000 Nice, France

<sup>22</sup> Hepato-Biliary Center, Paul-Brousse Hospital, AP-HP, Liver Intensive Care Unit, 94800 Villejuif, France

<sup>23</sup> INSERM, Unité 1193, Université Paris-Saclay, 94800 Villejuif, France

<sup>24</sup> DHU Hépatites, 94800 Villejuif, France

<sup>25</sup> Department of Anaesthesia and Intensive Care, Saint Eloi Montpellier University Hospital, and PhyMedExp, University of Montpellier, INSERM, CNRS, 34295 Montpellier cedex 5, France

<sup>26</sup> Sorbonne Université, Department of Anaesthesiology and Critical Care Medicine, Saint-Antoine Hospital, Assistance Publique-Hôpitaux de Paris, Paris, France

<sup>27</sup> Inserm, Université Paris Diderot, Centre de Recherche sur l'Inflammation (CRI), 75018 Paris, France

<sup>28</sup> Department of Hepatology, Beaujon Hospital, AP-HP, 92110 Clichy, France

<sup>29</sup> European Foundation for the study on chronic liver failure (EF CLF), Barcelona, Spain

<sup>30</sup> Institute for Liver and Biliary Sciences (ILBS), New Delhi, India

<sup>31</sup> Anaesthesiology and Critical Care Department 1, Bordeaux University Hospital, 33000 Bordeaux, France

<sup>32</sup> University of Bordeaux, INSERM U 1034, Biology of Cardiovascular Diseases, 33000 Bordeaux, France

<sup>33</sup> Hepato-Biliary Center, Paul Brousse Hospital, AP-HP, INSERM Unité 935 and Unité 1193, 94800 Villejuif, France

<sup>34</sup> Department of Hepatology and Digestive Critical Care, Department of Hepatology, Jean Minjoz University Hospital, 25030 Besançon, France

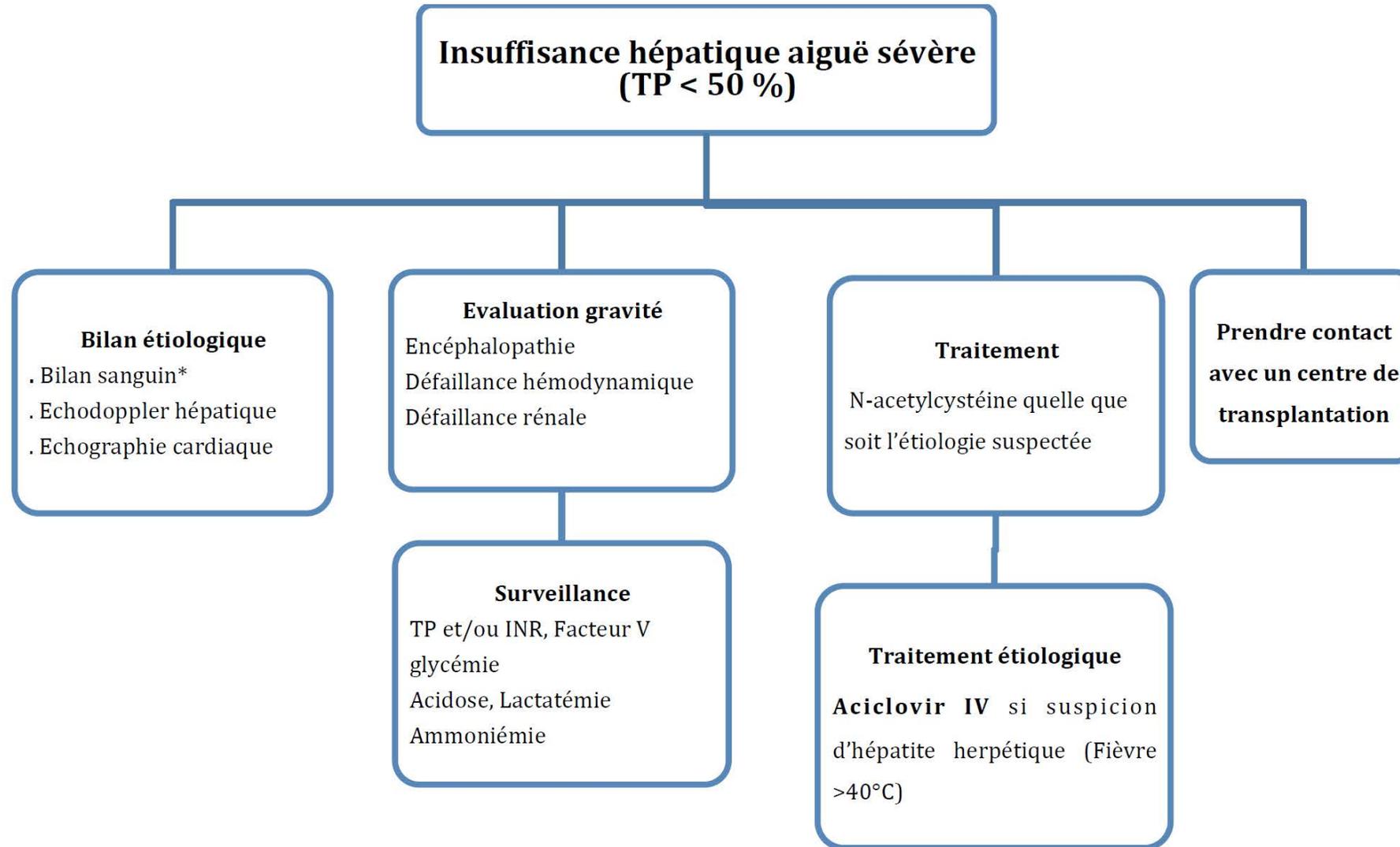
<sup>35</sup> Aix Marseille University, CNRS, Institut de Neurosciences de la Timone (INT), 13005 Marseille, France

<sup>36</sup> Department of Anaesthesiology and Critical Care Medicine, University Hospital La Timone, 13005 Marseille, France

<sup>37</sup> Department of Anaesthesiology and Critical Care, Beaujon Hospital, DMU Parabol, AP-HP Nord, University of Paris, France

<sup>38</sup> UMR\_S1149, Centre de recherche sur l'inflammation, INSERM et University of Paris, Paris, France

# Insuffisance hépatique – RFE 2018



\*Chez les patients présentant une IHA sévère, il est recommandé d'effectuer le dosage sanguin du paracétamol, les sérologies virales A (IgM HAV) et B (AgHBs, IgMHbC), la recherche urinaire de toxiques (amphétamine, cocaïne), une échographie cardiaque, et un échodoppler hépatique.

# Insuffisance hépatique – RFE 2018

## Admission du patient cirrhotique en réanimation

R4 – Il n'est probablement pas recommandé de refuser d'admettre les patients cirrhotiques en soins critiques, du fait de leur seule maladie cirrhotique.

Grade 2-, Accord FORT

## Hémorragie digestive chez le patient cirrhotique

R8.1 – Chez les patients cirrhotiques, en cas d'hémorragie digestive, il est recommandé d'administrer le plus tôt possible un traitement vasoactif intraveineux par octréotide, somatostatine ou terlipressine en association avec une antibiothérapie préventive.

Grade 1+, Accord FORT

R8.2 – Chez les patients cirrhotiques, en cas d'hémorragie digestive, il est probablement recommandé d'administrer le plus tôt possible un traitement par inhibiteurs de la pompe à protons.

Grade 2+, Accord FORT

R8.3 – Chez les patients cirrhotiques, en cas d'hémorragie digestive, il est recommandé de réaliser une endoscopie œsogastroduodénale dès que possible.

Grade 1+, Accord FORT

# Plan

Pancréatite aigüe

Infections Intraabdominales

Insuffisance hépatique

Hémorragie digestive

Nutrition Clinique

Période post-opératoire de chirurgie abdominale

**BMJ Open** Efficacy and tolerance of early administration of tranexamic acid in patients with cirrhosis presenting with acute upper gastrointestinal bleeding: a study protocol for a multicentre, randomised, double-blind, placebo-controlled trial (the EXARHOSE study)

---

Matthieu Heidet,<sup>1,2</sup> Roland Amathieu,<sup>3,4</sup> Etienne Audureau,<sup>5,6</sup> Oriane Augusto,<sup>7</sup> Violaine Nicolazo de Barmon,<sup>7</sup> Amandine Riolland,<sup>7</sup> David Schmitz,<sup>7</sup> François Pierrang,<sup>7</sup> Jean Marty,<sup>1,2</sup> Charlotte Chollet-Xémard,<sup>1</sup> Olivier Thirion,<sup>8</sup> Line Jacob<sup>9</sup>

En cours

# Hémorragie digestive – seuil transfusionnel

=> Restrictive Strategy (7-8 g/dL) vs Liberal Strategy (10 g/dL)?

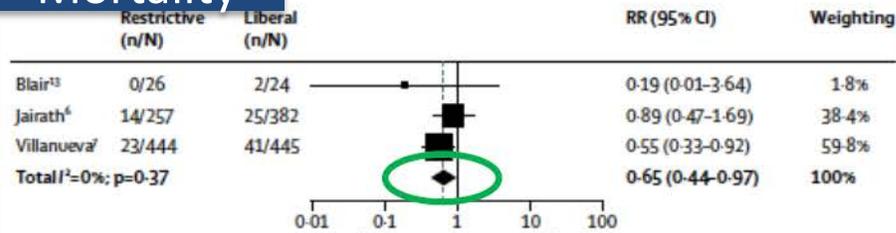


## Restrictive versus liberal blood transfusion for gastrointestinal bleeding: a systematic review and meta-analysis of randomised controlled trials

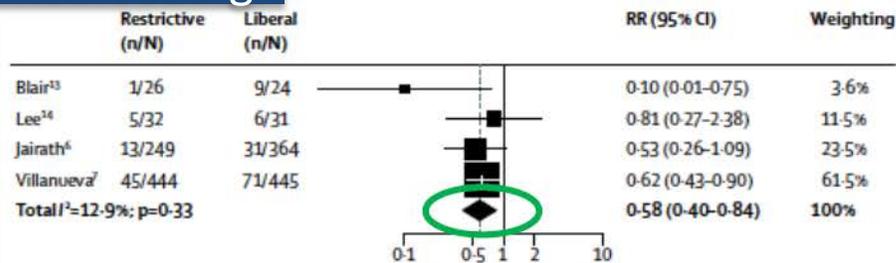
Ayodele Odutayo\*, Michael J R Desborough\*, Marielena Trivella, Adrian J Stanley, Carolyn Dorée, Gary S Collins, Sally Hopewell, Susan J Brunskill, Brennan C Kahan, Richard F A Logan, Alan N Barkun, Michael F Murphy, Vipul Jairath

Lancet Gastroenterol Hepatol  
2017; 2: 354-60

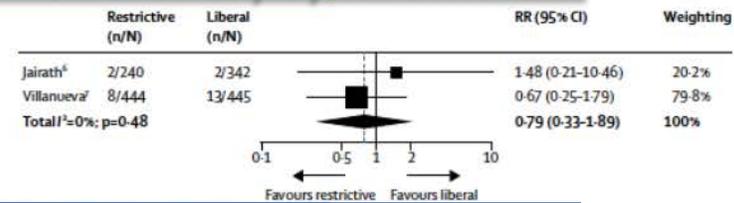
### Mortality



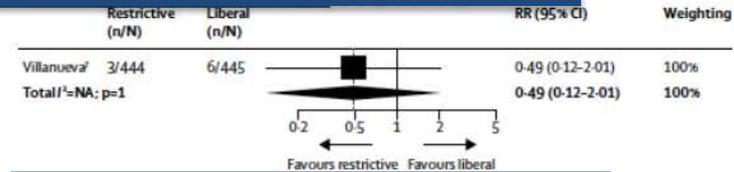
### Rebleeding



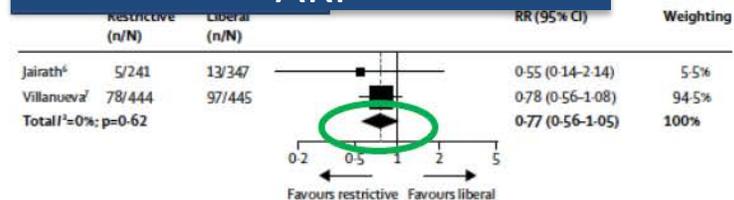
### Coronary syndrome



### Cerebral ischemia



### AKI



# Hémorragie digestive – prévention: IPP ?

The NEW ENGLAND  
JOURNAL of MEDICINE

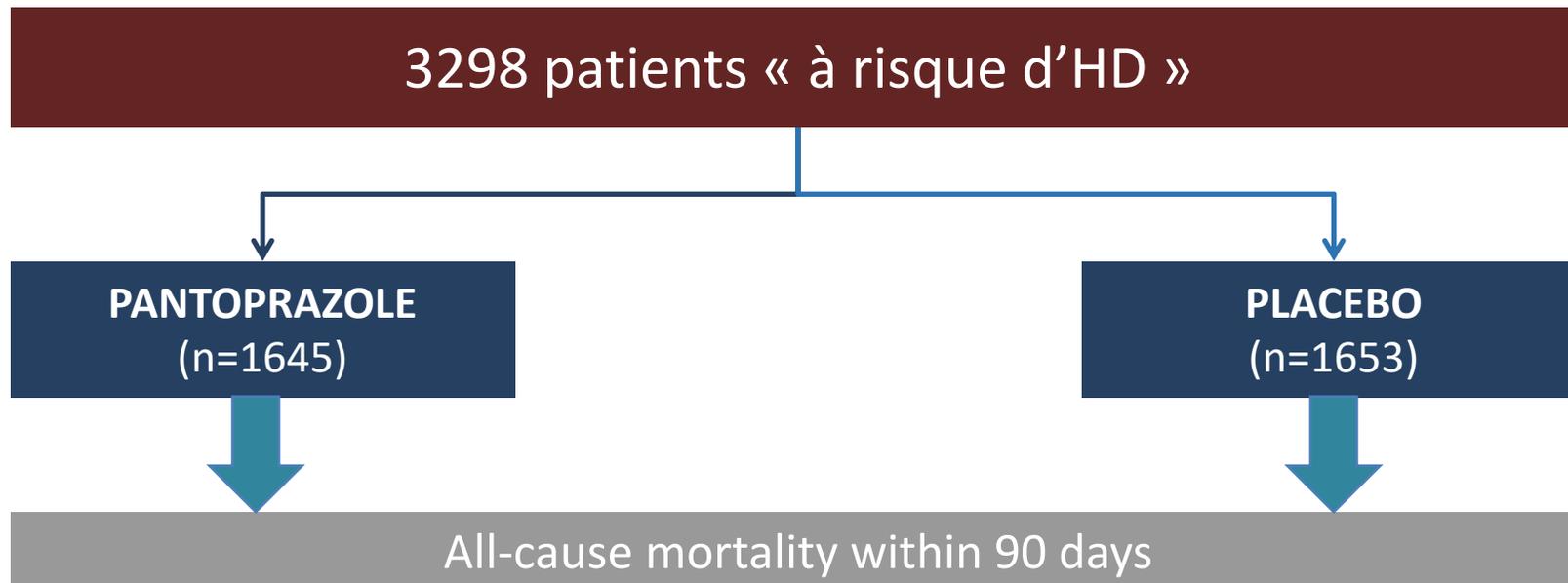
ESTABLISHED IN 1812

DECEMBER 6, 2018

VOL. 379 NO. 23

## Pantoprazole in Patients at Risk for Gastrointestinal Bleeding in the ICU

M. Krag, S. Marker, A. Perner, J. Wetterslev, M.P. Wise, J.C. Schefold, F. Keus, A.B. Guttormsen, S. Bendel, M. Borthwick, T. Lange, B.S. Rasmussen, M. Siegemund, H. Bundgaard, T. Elkmann, J.V. Jensen, R.D. Nielsen, L. Liboriussen, M.H. Bestle, J.M. Elkjær, D.F. Palmqvist, M. Bäcklund, J.H. Laake, P.M. Bådstøløkken, J. Grönlund, O. Breum, A. Walli, R. Winding, S. Iversen, I.-L. Jarnvig, J.O. White, B. Brand, M.B. Madsen, L. Quist, K.J. Thornberg, A. Møller, J. Wiis, A. Granholm, C.T. Anthon, T.S. Meyhoff, P.B. Hjortrup, S.R. Aagaard, J.B. Andreasen, C.A. Sorensen, P. Haure, J. Hauge, A. Hollinger, J. Scheuzger, D. Tuchscherer, T. Vuillioinenet, J. Takala, S.M. Jakob, M.L. Vang, K.B. Pælestik, K.L.D. Andersen, I.C.C. van der Horst, W. Dieperink, J. Fjølner, C.K.W. Kjer, C. Sølling, C.G. Sølling, J. Karttunen, M.P.G. Morgan, B. Sjøbø, J. Engstrøm, B. Agerholm-Larsen, and M.H. Møller, for the SUP-ICU trial group\*



# Hémorragie digestive - IPP

Outcomes	Pantoprazole	Placebo	Relative Risk (95% CI)*	P Value†
Primary outcome: death by day 90 — no./total no. (%)	510/1642 (31.1)	499/1640 (30.4)	1.02 (0.91–1.13)	0.76
Secondary outcomes				
One or more clinically important events — no./total no. (%)‡	360/1644 (21.9)	372/1647 (22.6)	0.96 (0.83–1.11)	—
One or more episodes of clinically important gastrointestinal bleeding — no./total no. (%)	41/1644 (2.5)	69/1647 (4.2)	0.58 (0.40–0.86)	—
One or more infectious adverse events — no./total no. (%)§	276/1644 (16.8)	279/1647 (16.9)	0.99 (0.84–1.16)	—
Severe adverse reaction — no./total no. (%)¶	0/1644 (0)	0/1647 (0)	—	—
Median percentage of days alive without the use of life support (IQR)	92 (60–97)	92 (65–97)	—	—

~

## STATISTICAL ANALYSIS

We estimated that 3350 patients would be required for the trial to have 90% power to detect a between-group difference of 5 percentage points in 90-day mortality, corresponding to a 20% difference in relative risk at a two-sided alpha level of 5%, under the assumption of a baseline 90-day mortality of 25%.<sup>4,13,14</sup> The statistical analysis was performed in accordance with the International Conference on Harmonisation tripartite guideline

Nutrition entérale ?

Etiologie de l'HD?

IPP ttt de fond ?

# Plan

Pancréatite aigüe

Infections Intraabdominales

Insuffisance hépatique

Hémorragie digestive

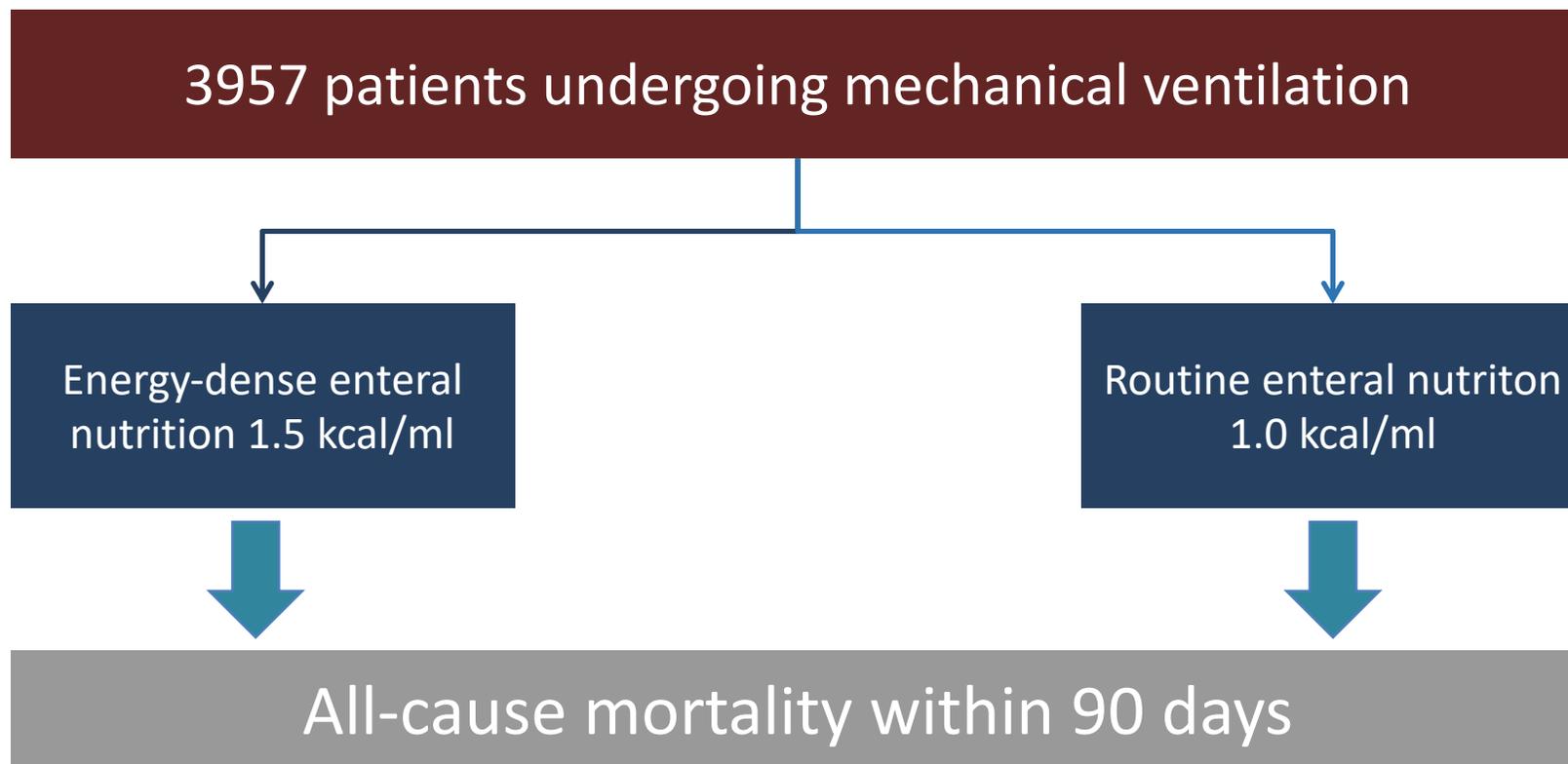
Nutrition Clinique

Période post-opératoire de chirurgie abdominale

ORIGINAL ARTICLE

# Energy-Dense versus Routine Enteral Nutrition in the Critically Ill

The TARGET Investigators, for the ANZICS Clinical Trials Group\*



## ORIGINAL ARTICLE

# Energy-Dense versus Routine Enteral Nutrition in the Critically Ill

The TARGET Investigators, for the ANZICS Clinical Trials Group\*

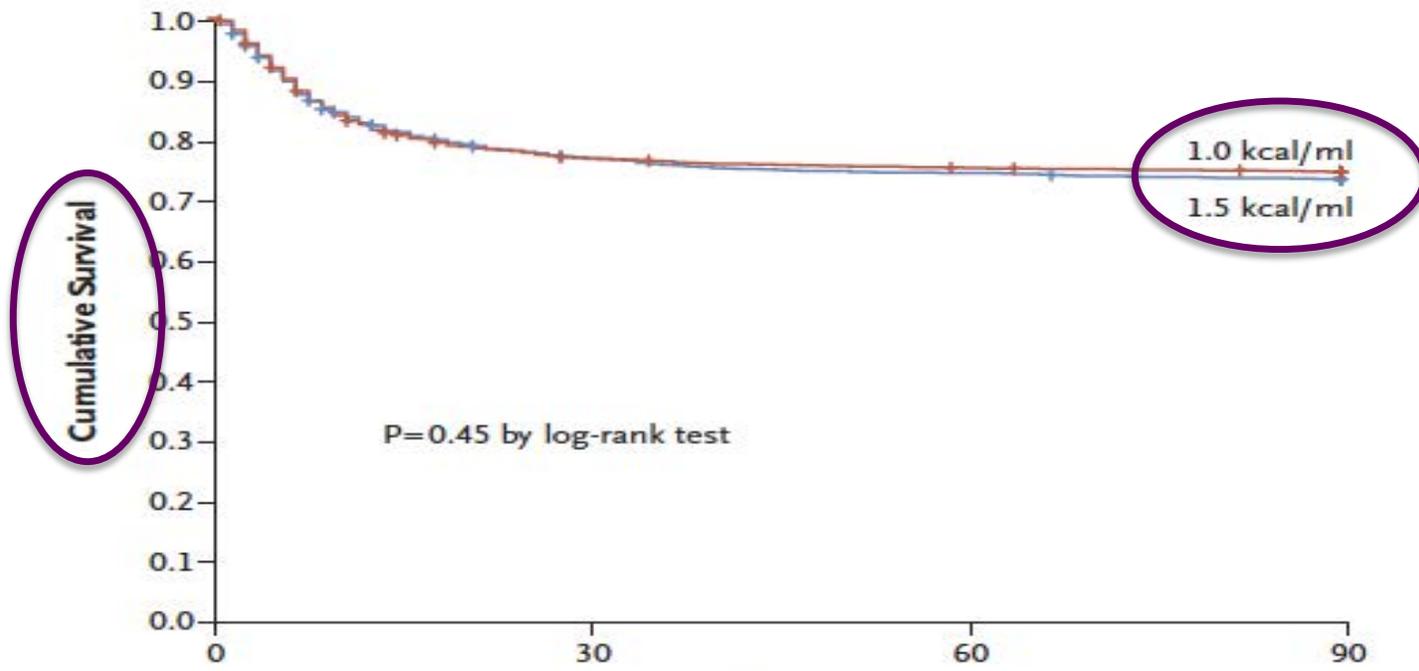
Measure	1.5-kcal Group (N=1971)	1.0-kcal Group (N=1985) <sup>†</sup>	Difference or Relative Risk (95% CI) <sup>‡</sup>
Median time from ICU admission to commencing trial nutrition (IQR) — hr	15.8 (7.7 to 26.3)	15.9 (7.9 to 28.3)	-0.4 (-1.1 to 0.4)
Median duration of trial nutrition (IQR) — days <sup>§</sup>	6.0 (3.0 to 11.0)	6.0 (3.0 to 11.0)	0
Volume of trial nutrition delivered — ml/day <sup>¶</sup>	1242±318	1262±313	-20 (-40 to 0)
Percentage of trial target rate delivered	81±17	82±16	-1 (-2 to 0)
Calories delivered — kcal/day <sup>¶</sup>			
Trial nutrition	1863±478	1262±313	601 (576 to 626)
Trial nutrition plus other sources <sup>  </sup>	1930±547	1407±397	523 (493 to 553)
Calories delivered — kcal/kg of ideal body weight per day <sup>¶</sup>			
Trial nutrition	29.1±6.2	19.6±4.0	9.5 (9.2 to 9.9)
Trial nutrition plus other sources <sup>  </sup>	30.2±7.5	21.9±5.6	8.3 (7.9 to 8.7)
Calories delivered — kcal/kg of actual body weight per day <sup>¶**</sup>			
Trial nutrition	23.1±7.1	15.6±4.8	7.5 (7.1 to 7.9)
Trial nutrition plus other sources <sup>  </sup>	23.9±7.8	17.4±5.5	6.6 (6.2 to 7.0)
Protein delivered <sup>¶</sup>			
Trial nutrition — g/day	69.6±17.8	69.4±17.2	0.1 (-1.0 to 1.2)
Trial nutrition — g/kg of ideal body weight per day	1.09±0.22	1.08±0.23	0.01 (-0.01 to 0.02)

ORIGINAL ARTICLE

# Energy-Dense versus Routine Enteral Nutrition in the Critically Ill

The TARGET Investigators, for the ANZICS Clinical Trials Group\*

## A Survival



### No. at Risk

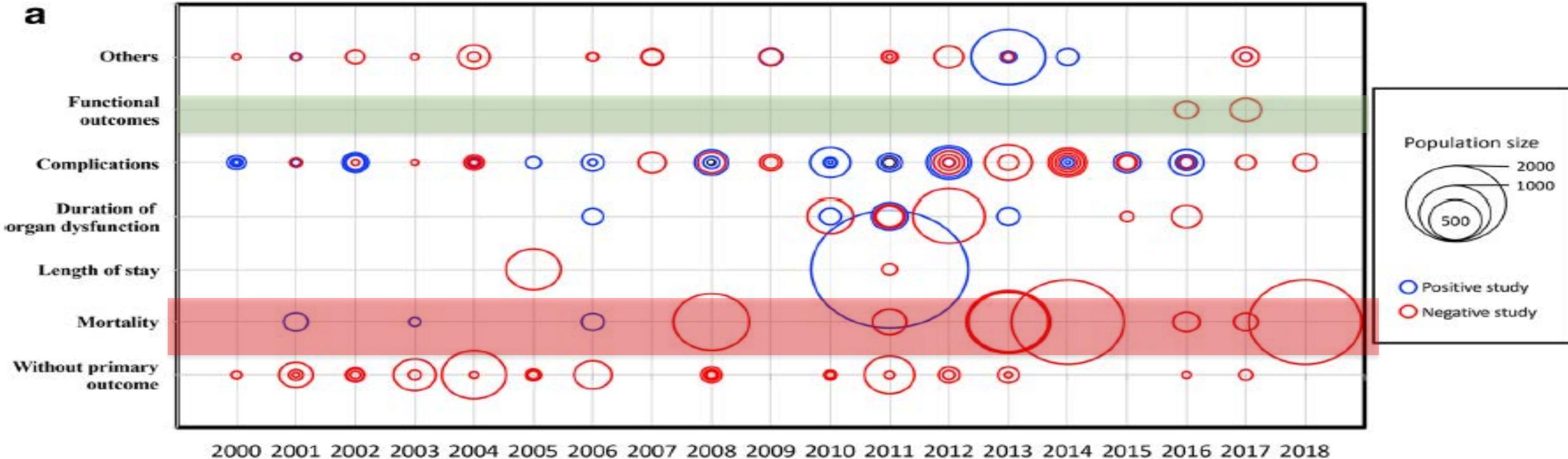
1.5 kcal/ml	1971	1495	1445	1425
1.0 kcal/ml	1985	1512	1477	1461



# Outcomes used in randomised controlled trials of nutrition in the critically ill: a systematic review

Gary Taverny<sup>1,2</sup>, Thomas Lescot<sup>3,4\*</sup>, Emmanuel Pardo<sup>3</sup>, Frederique Thonon<sup>5</sup>, Manar Maarouf<sup>3</sup> and Corinne Alberti<sup>1,2</sup>

170 RCT



# Individualized strategies ?



# Plan

Pancréatite aigüe

Infections Intraabdominales

Insuffisance hépatique

Hémorragie digestive

Nutrition Clinique

Période post-opératoire de chirurgie abdominale

# IRA après chirurgie abdominale: HFNO vs O2 standard

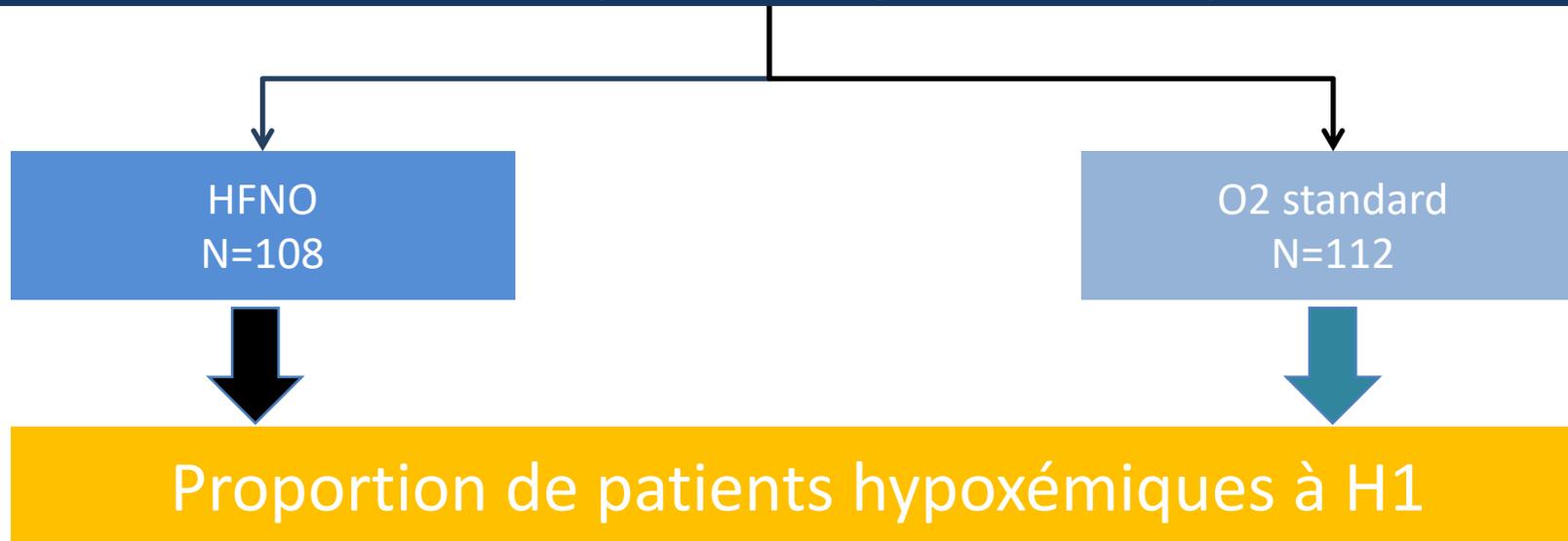
ORIGINAL

Effect of early postextubation high-flow nasal cannula vs conventional oxygen therapy on hypoxaemia in patients after major abdominal surgery: a French multicentre randomised controlled trial (OPERA)



Emmanuel Futier<sup>1,2</sup>, Catherine Paugam-Burtz<sup>3</sup>, Thomas Godet<sup>1</sup>, Linda Khoy-Ear<sup>3</sup>, Sacha Rozencwajg<sup>3</sup>, Jean-Marc Delay<sup>4</sup>, Daniel Verzilli<sup>4</sup>, Jeremie Dupuis<sup>1</sup>, Gerald Chanques<sup>4,6</sup>, Jean-Etienne Bazin<sup>1</sup>, Jean-Michel Constantin<sup>1,2</sup>, Bruno Pereira<sup>5</sup>, Samir Jaber<sup>4,6\*</sup> and OPERA study investigators

220 patients inclus dans la période post-opératoire de chirurgie abdominale et à risque de complications respiratoires



# IRA après chirurgie abdominale: HFNO vs O2 standard

Outcomes	No./total no. (%)		ARR or between-group difference (95 % CI)	p value
	Usual care	HFNC oxygen therapy		
Primary outcomes				
Postoperative hypoxaemia <sup>a,b</sup>				
1 h after extubation	27/112 (24)	23/108 (21)	-3 (-14 to 8)	0.62
After discontinuation of the study treatment	34/112 (30)	29/108 (27)	-4 (-15 to 8)	0.57
Secondary outcomes				
Need for supplemental oxygen therapy after treatment discontinuation	92/112 (82)	79/108 (73)	-9 (-20 to 2)	0.11
Pulmonary complications <sup>c</sup> within 7 days				
Grade 1 or 2	49/112 (44)	37/108 (34)	-10 (-25 to 4)	0.17
Grade $\geq 3$	19/112 (17)	21/108 (20)	2 (-8 to 13)	0.63
Bronchial congestion	14/112 (13)	16/108 (15)	2 (-7 to 11)	0.62
Hypoxaemia <sup>d</sup>	30/112 (27)	30/108 (28)	0 (-11 to 13)	0.87
Pneumonia	10/112 (9)	10/108 (9)	0 (-7 to 8)	0.93
Need for intubation or NIV for respiratory failure <sup>e</sup>	14/112 (13)	20/108 (19)	6 (-4 to 16)	0.22
Surgical reoperation within 7 days <sup>f</sup>	5/112 (4)	2/108 (2)	-3 (-7 to 2)	0.45
Unexpected ICU admission	16/112 (14)	16/108 (15)	0 (-9 to 10)	0.91
ICU length of stay (days)	5 (3-13)	6 (4-16)	3 (-5 to 12)	0.53
Hospital length of stay (days)	11 (7-18)	12 (7-20)	0.5 (-3.5 to 4.5)	0.58
In-hospital mortality	3/112 (3)	2/108 (2)	-1 (-5 to 3)	0.68

NS

# IRA après chirurgie abdominale: timing arrêt sédation

## Immediate interruption of sedation compared with usual sedation care in critically ill postoperative patients (SOS-Ventilation): a randomised, parallel-group clinical trial

Gerald Chanques, Matthieu Conseil, Claire Roger, Jean-Michel Constantin, Albert Prades, Julie Carr, Laurent Muller, Boris Jung, Fouad Belafia, Moussa Cissé, Jean-Marc Delay, Audrey de Jong, Jean-Yves Lefrant, Emmanuel Futier, Grégoire Mercier, Nicolas Molinari, Samir Jaber, on behalf of the SOS-Ventilation study investigators\*

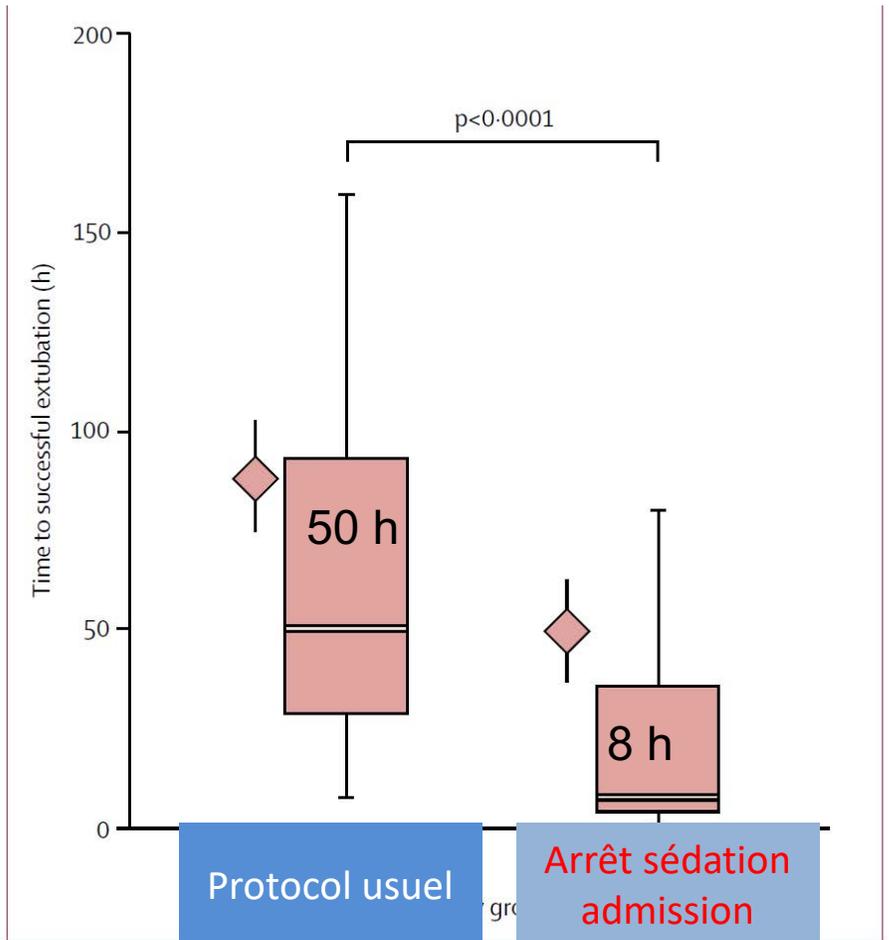


137 patients admis en réanimation après chirurgie abdominale

Protocol usuel

Arrêt sédation admission

Délais d'extubation



# IRA après chirurgie abdominale: quality improvement programme

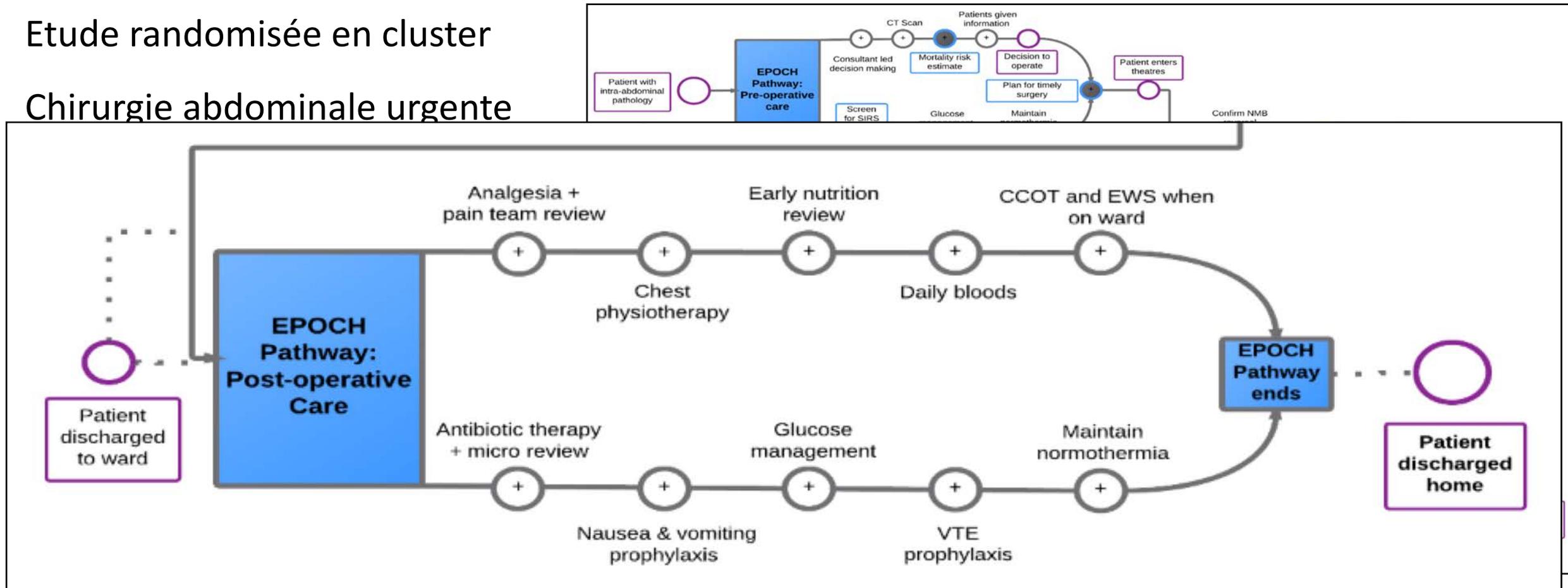
Effectiveness of a national quality improvement programme to improve survival after emergency abdominal surgery (EPOCH): a stepped-wedge cluster-randomised trial



Lancet 2019

Carol J Peden, Tim Stephens, Graham Martin, Brennan C Kahan, Ann Thomson, Kate Rivett, Duncan Wells, Gerry Richardson, Sally Kerry, Julian Bion, Rupert M Pearse, on behalf of the Enhanced Peri-Operative Care for High-risk patients (EPOCH) trial group\*

- Etude randomisée en cluster
- Chirurgie abdominale urgente

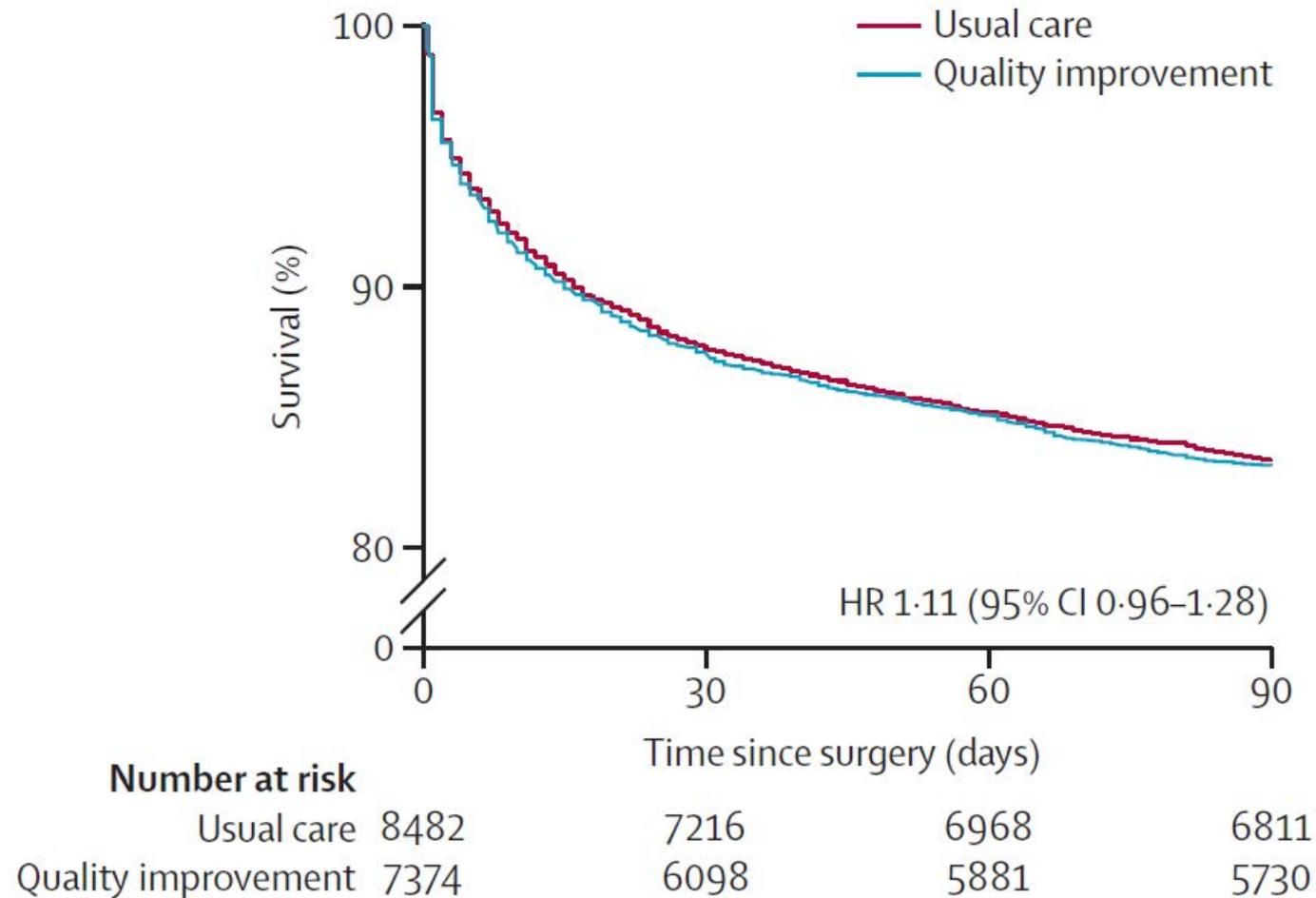


# IRA après chirurgie abdominale: quality improvement programme

## Effectiveness of a national quality improvement programme to improve survival after emergency abdominal surgery (EPOCH): a stepped-wedge cluster-randomised trial



Carol J Peden, Tim Stephens, Graham Martin, Brennan C Kahan, Ann Thomson, Kate Rivett, Duncan Wells, Gerry Richardson, Sally Kerry, Julian Bion, Rupert M Pearse, on behalf of the Enhanced Peri-Operative Care for High-risk patients (EPOCH) trial group\*



# Conclusions

- **Pancréatite aigüe**
  - Dysfonction d'organe et leur évolution temporelle
  - Péridurale thoracique ?
  - Pas de CPRE sauf si angiocholite
  - Privilégier les techniques mini invasives de nécrosectomie
- **Infections intra-abdominales**
  - Durée d'antibiothérapie des PPO: 8 jours
  - Ecologie bactérienne +++ selon géographie
- **Insuffisance hépatique en réanimation**
  - Admission des patients cirrhotiques en réanimation (réévaluation précoce)
  - RFE 2018
- **Hémorragie digestive**
  - Pas d'IPP (systématique) ?
- **Nutrition**
  - NE 1,0 vs 1,5 kcal/ml ne modifie pas.... la mortalité (est-ce l'effet recherché ?)
- **Insuffisance respiratoire aigüe et Chirurgie abdominale**
  - Arrêt précoce des sédatifs
  - HFNO = O2