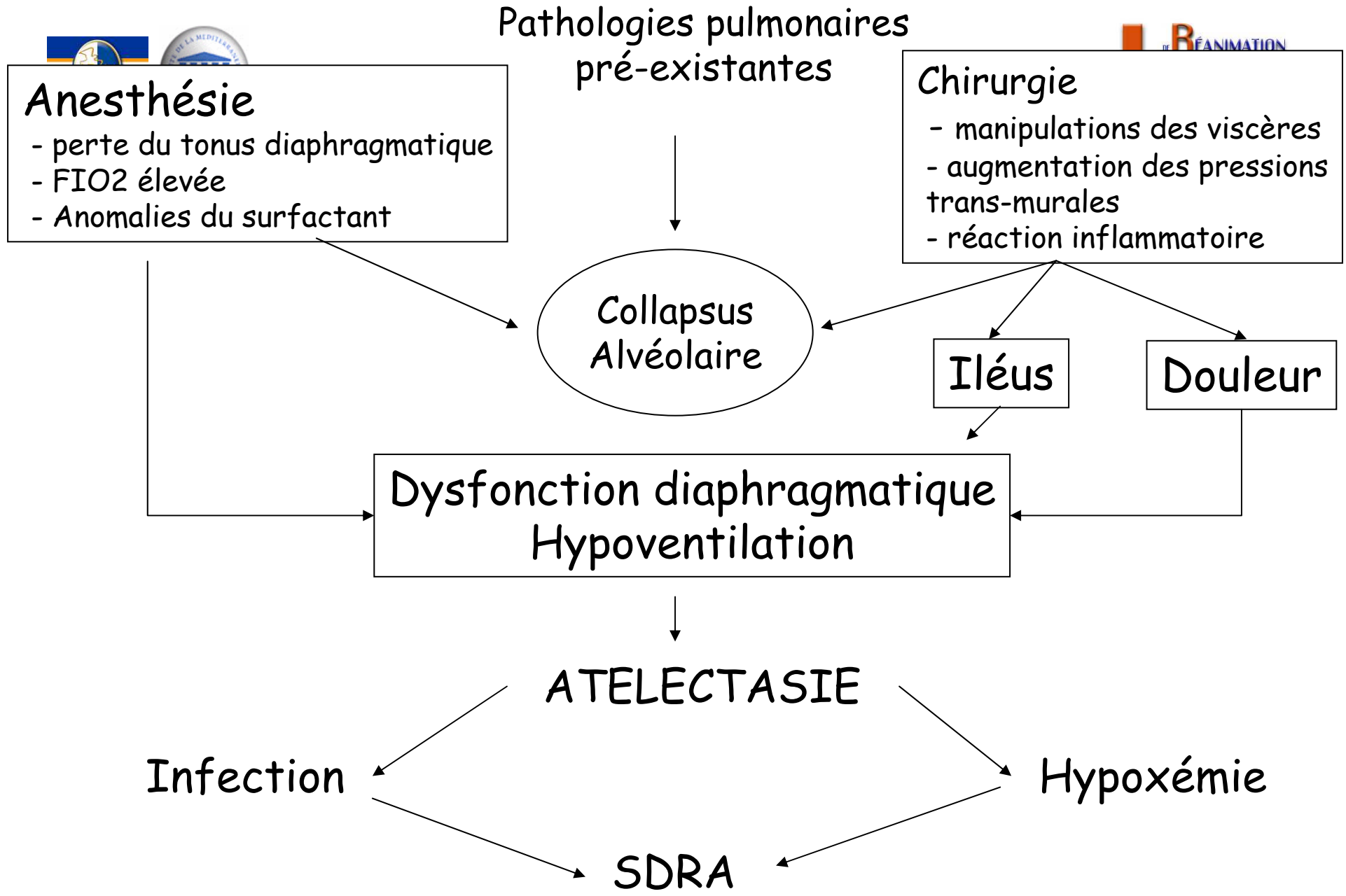
Prévention des complications respiratoires en chirurgie thoraco-abdominale: le point de vue de l'anesthésiste.

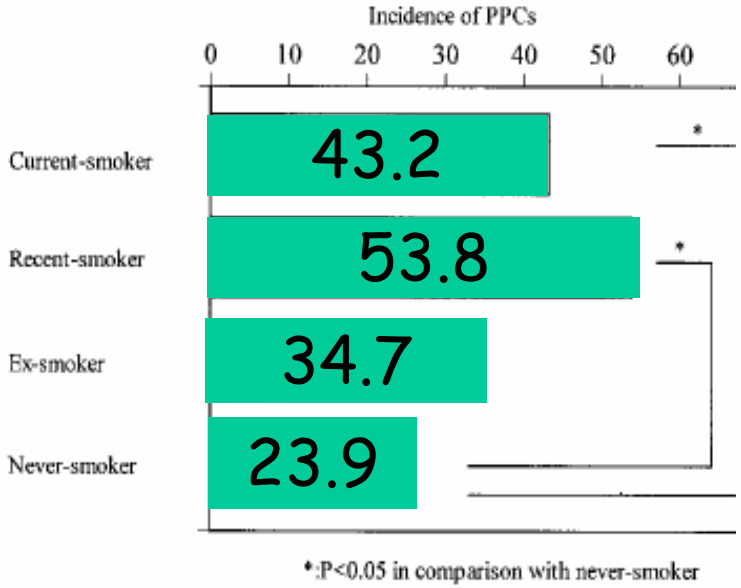
D. Blayac, DAR SUD, Marseille

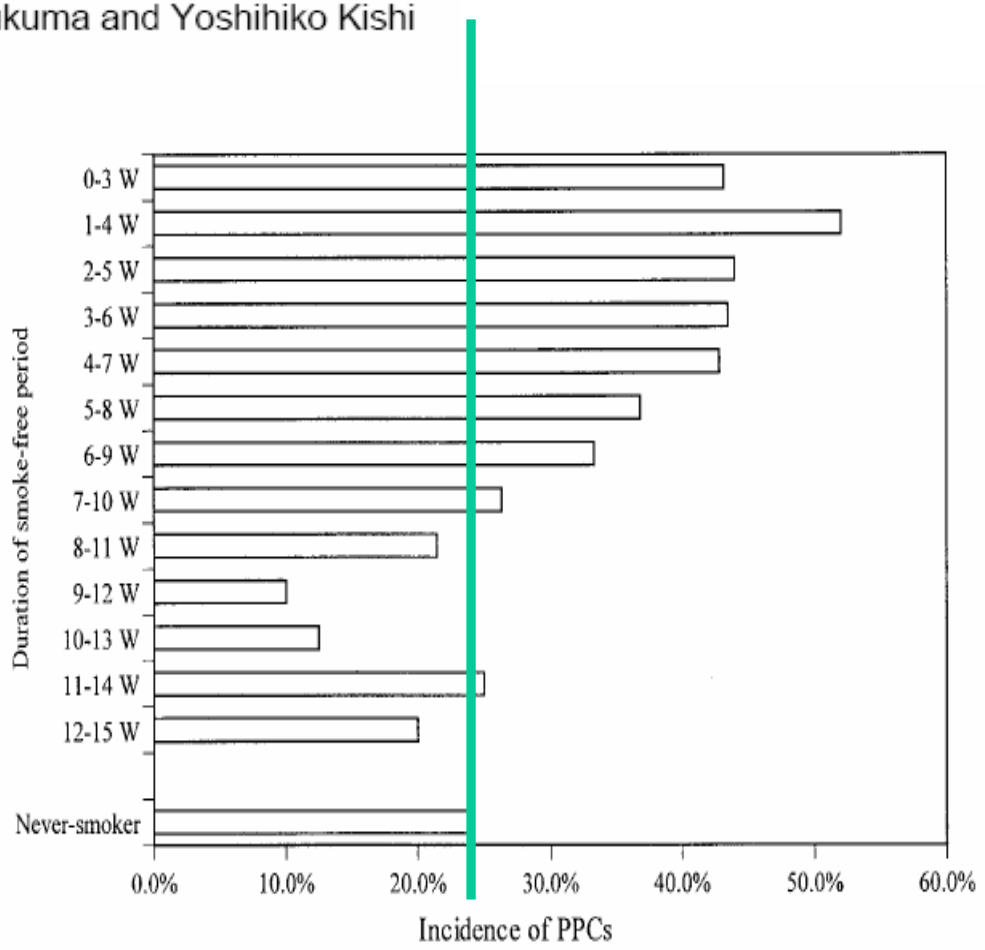

Pathologies pulmonaires pré-existantes
Anesthésie
- perte du tonus diaphragmatique
- FIO2 élevée
- Anomalies du surfactant
Chirurgie
- manipulations des viscères
- augmentation des pressions trans-murales
- réaction inflammatoire
Collapsus Alvéolaire
Iléus
Douleur
Dysfonction diaphragmatique Hypoventilation
ATELECTASIE
Infection
Hypoxémie
SDRA

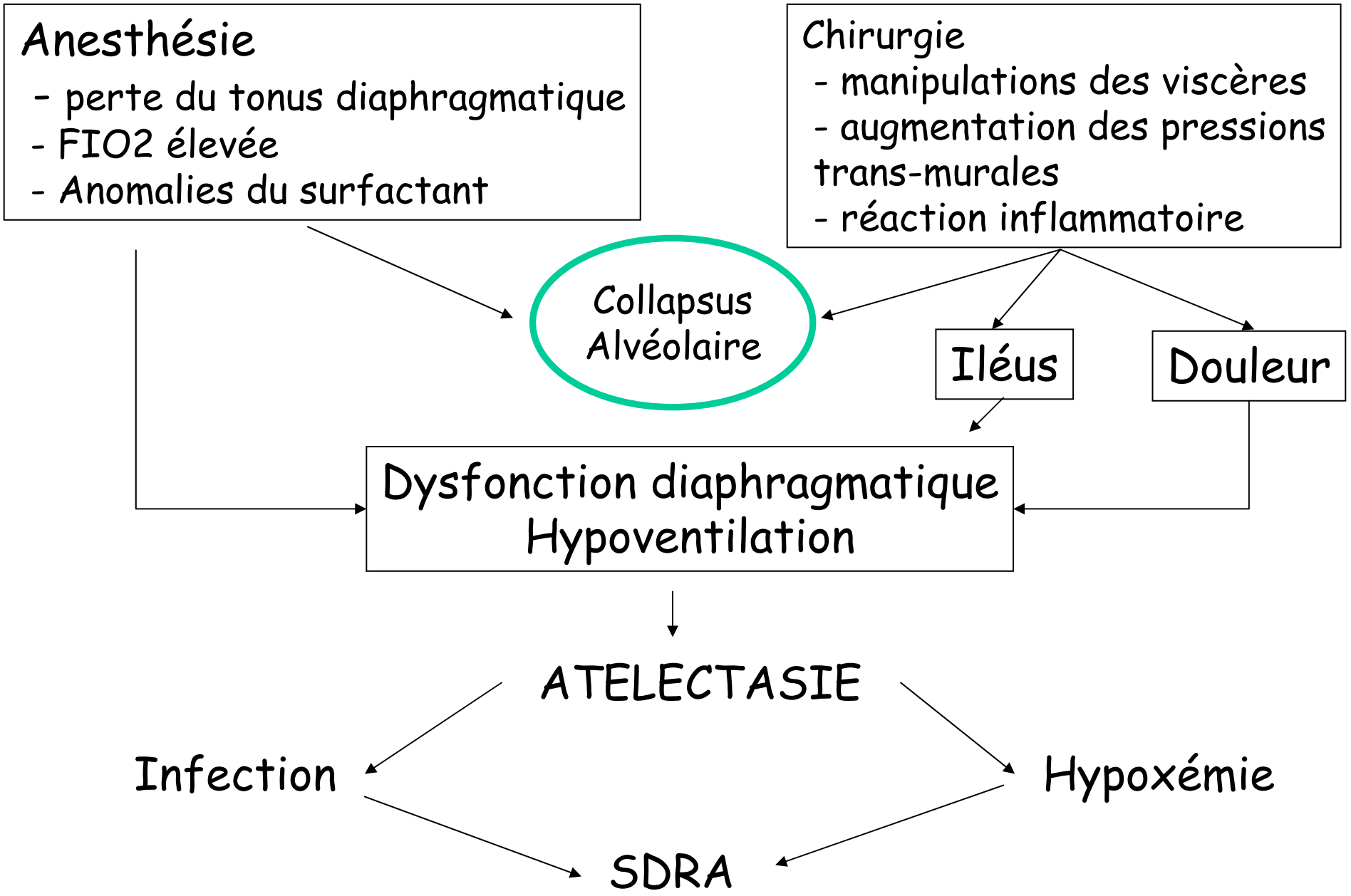
Relationship Between the Duration of the Preoperative Smoke-Free Period and the Incidence of Postoperative Pulmonary Complications After Pulmonary Surgery

Masashi Nakagawa, Hideo Tanaka, Hideaki Tsukuma and Yoshihiko Kishi

Chest 2001;120;705-710



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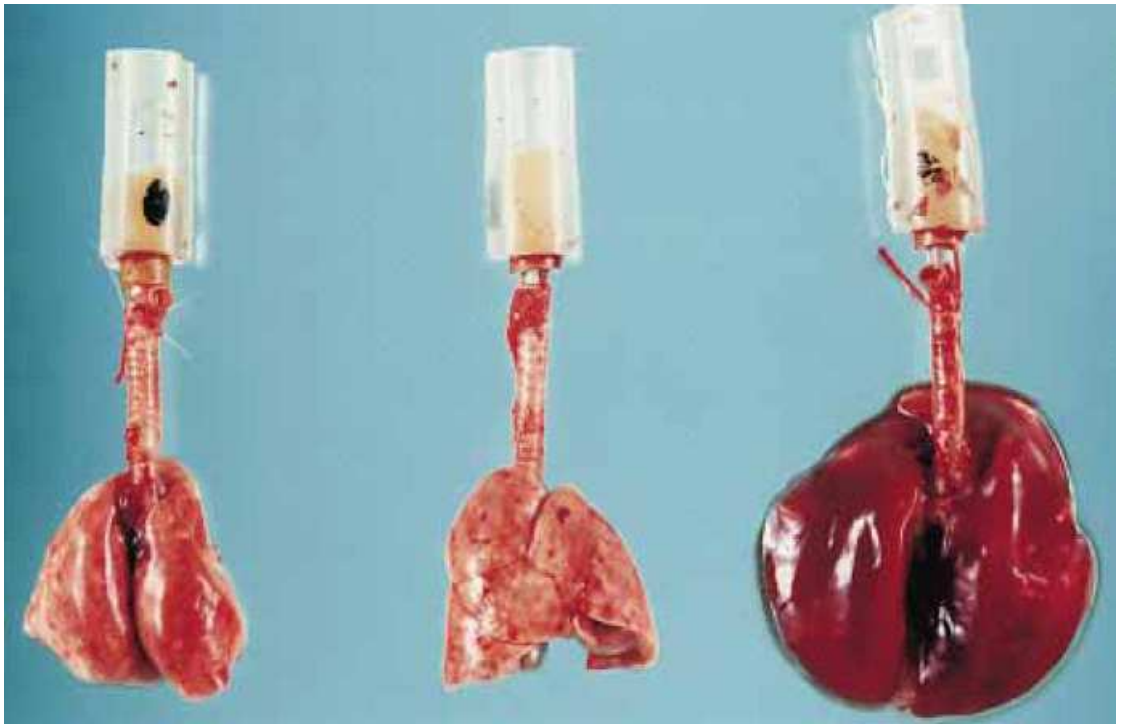
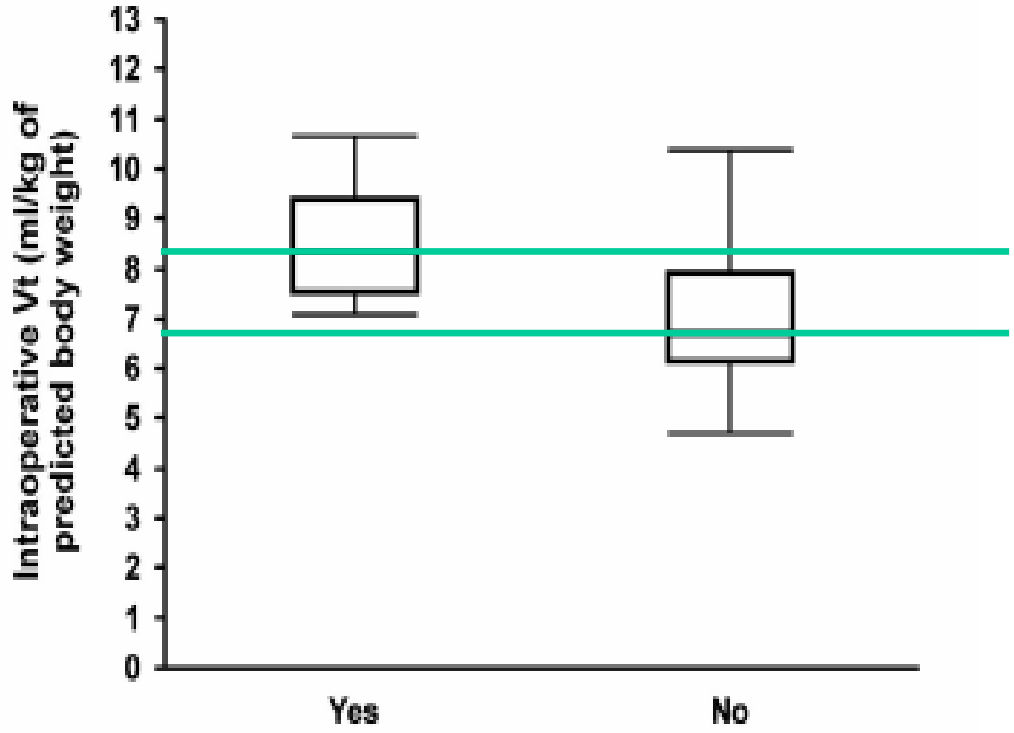


Anesthesiology 2006; 105:14–8

RÉANIMATION URGENCES RESPIRATOIRES

Intraoperative Tidal Volume as a Risk Factor for Respiratory Failure after Pneumonectomy

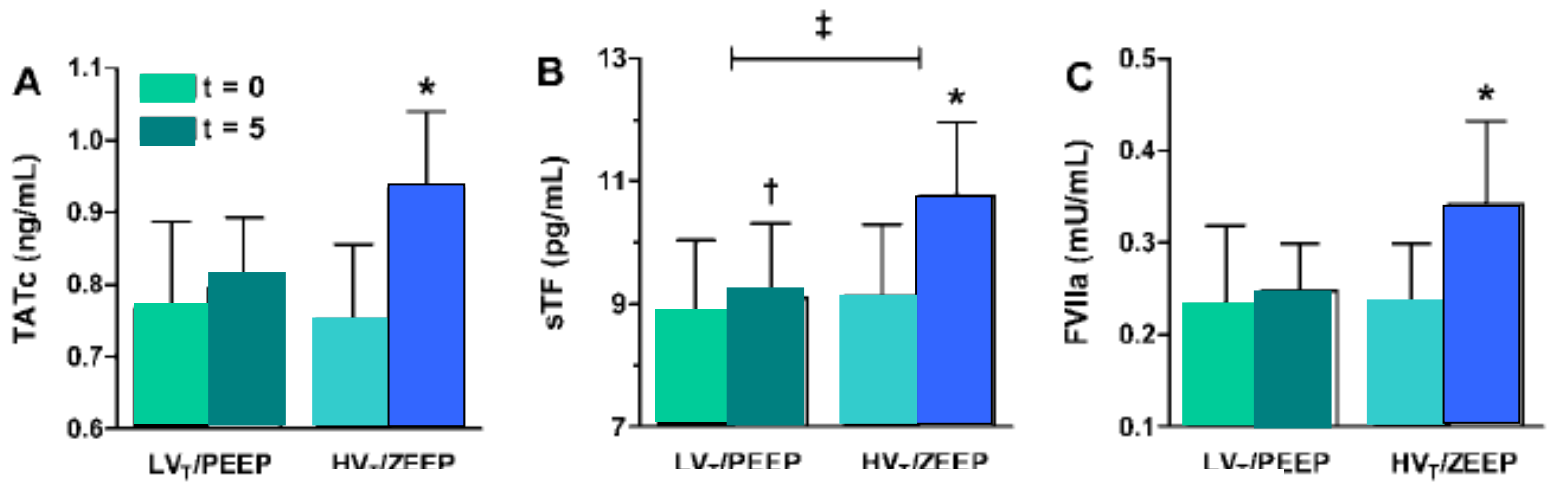
Evans R. Fernández-Pérez, M.D., Mark T. Keegan, M.B.M.R.C.P.I.,† Daniel R. Brown, M.D., Ph.D.,† Rolf D. Hubmayr, M.D.,‡ Ognjen Gajic, M.D., M.Sc.§*

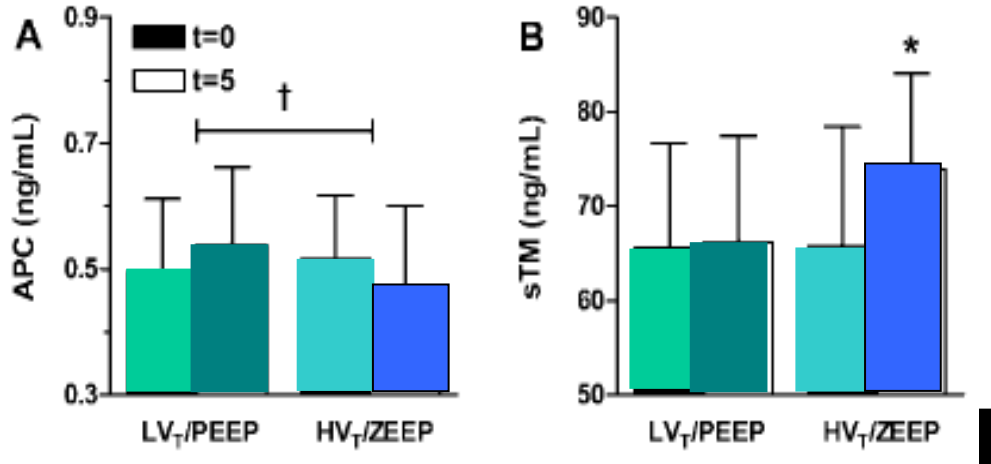


Anesthesiology 2006; 105:689–95

Mechanical Ventilation with Lower Tidal Volumes and Positive End-expiratory Pressure Prevents Alveolar Coagulation in Patients without Lung Injury

Goda Choi, M.D., Esther K. Wolthuis, M.D.,† Paul Bresser, M.D., Ph.D.,‡ Marcel Levi, M.D., Ph.D.,§ Tom van der Poll, M.D., Ph.D.,‖ Misa Dzoljic, M.D., Ph.D.,# Margreeth B. Vroom, M.D., Ph.D.,** Marcus J. Schultz, M.D., Ph.D.††*

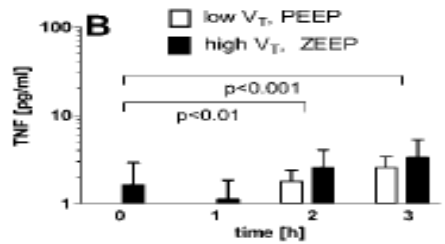


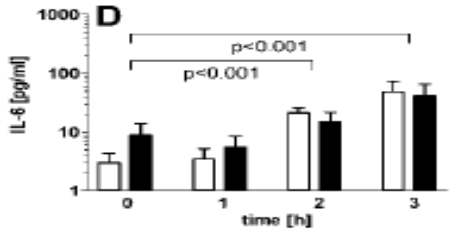


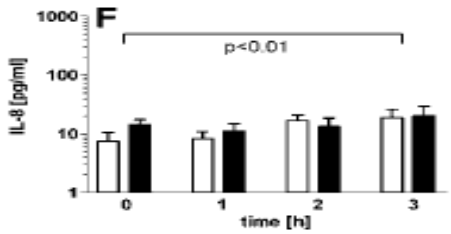
The Effects of Different Ventilatory Settings on Pulmonary and Systemic Inflammatory Responses During Major Surgery

Hermann Wrigge, MD*, Ulrike Uhlig, MSc, PhD†, Jörg Zinserling, MSc*,
Elisabeth Behrends-Callsen*, Gunther Ottersbach*, Matthias Fischer, MD, PhD*,
Stefan Uhlig, MSc, PhD†, and Christian Putensen, MD, PhD*

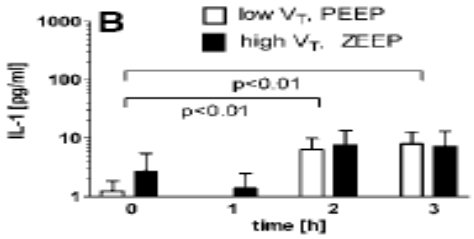
thoracic surgery

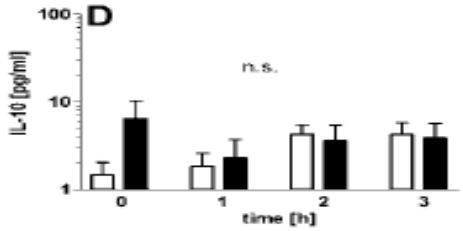


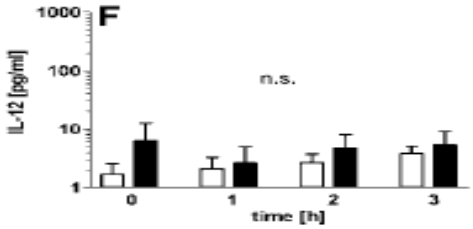




thoracic surgery







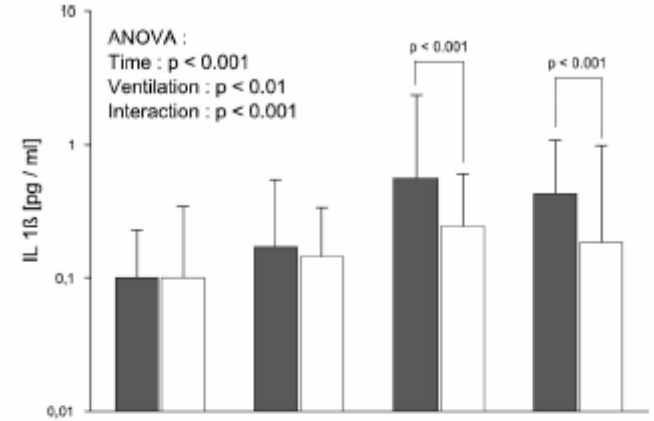
AA 2004;98:775-81

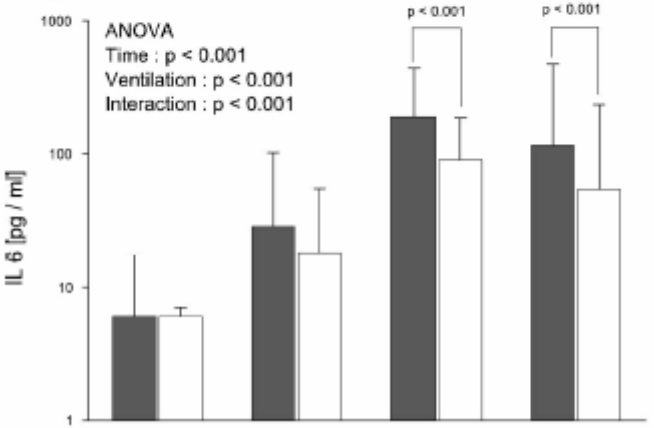
Anesthesiology 2006; 105:911–9

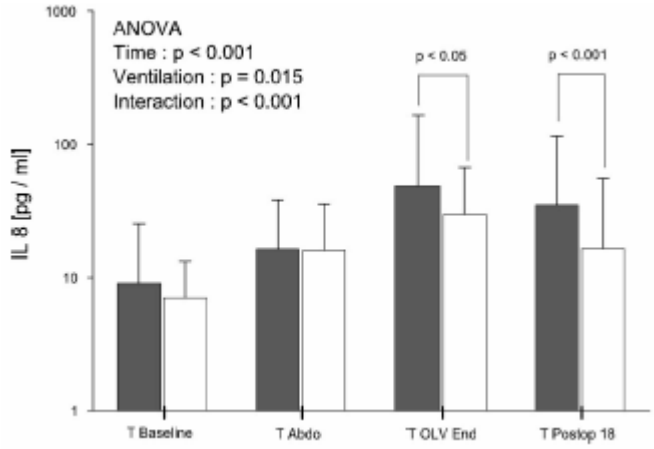
Protective Ventilation Influences Systemic Inflammation after Esophagectomy

A Randomized Controlled Study

Pierre Michelet, M.D., Xavier-Benoît D'Journo, M.D.,† Antoine Roch, M.D., Ph.D.,‡ Christophe Doddoli, M.D.,§ Valerie Marin, M.D.,|| Laurent Papazian, M.D., Ph.D.,# Isabelle Decamps, M.D.,* Fabienne Bregeon, M.D., Ph.D.,** Pascal Thomas, M.D.,†† Jean-Pierre Auffray, M.D.‡‡*







Anesthesiology 2006; 105:911–9

Protective Ventilation Influences Systemic Inflammation after Esophagectomy

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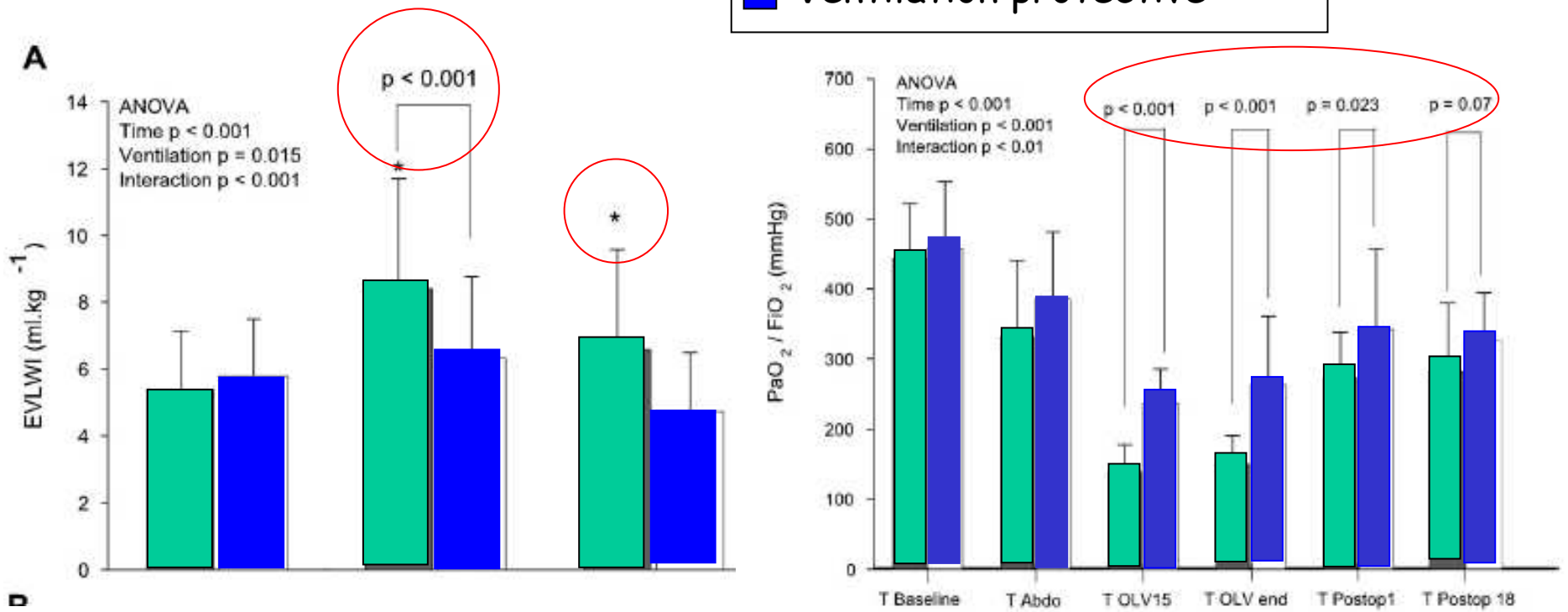
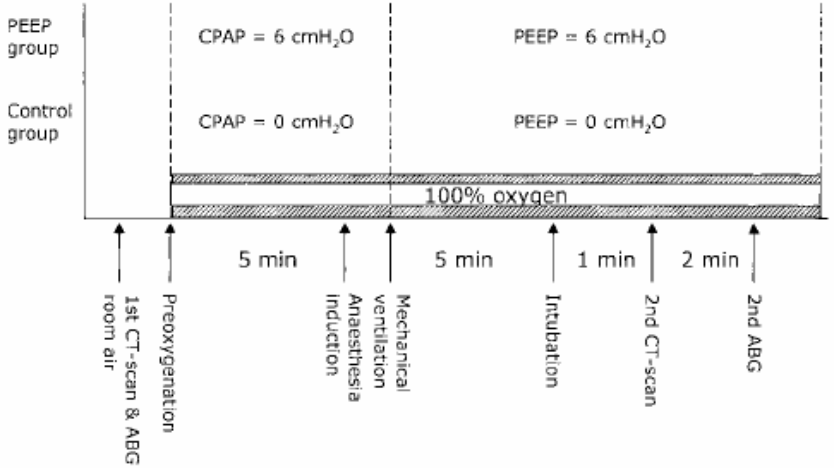
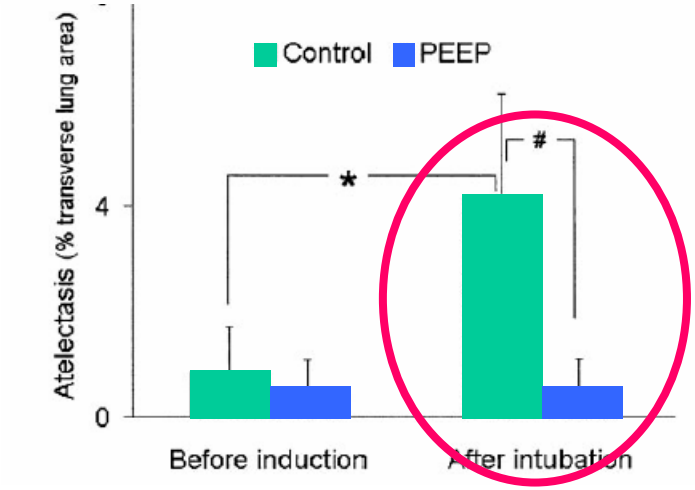
Ventilation conventionnelle
Ventilation protective



Prevention of Atelectasis Formation During Induction of General Anesthesia

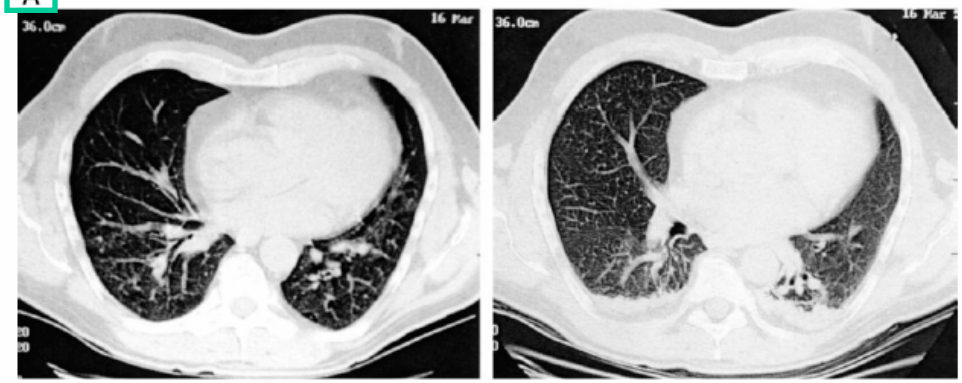
Marco Rusca, MD*, Stefania Proietti, MD†, Pierre Schnyder, MD†, Philippe Frascarolo, PhD*, Göran Hedenstierna, MD, PhD‡, Donat R. Spahn, MD*, and Lennart Magnusson, MD, PhD*





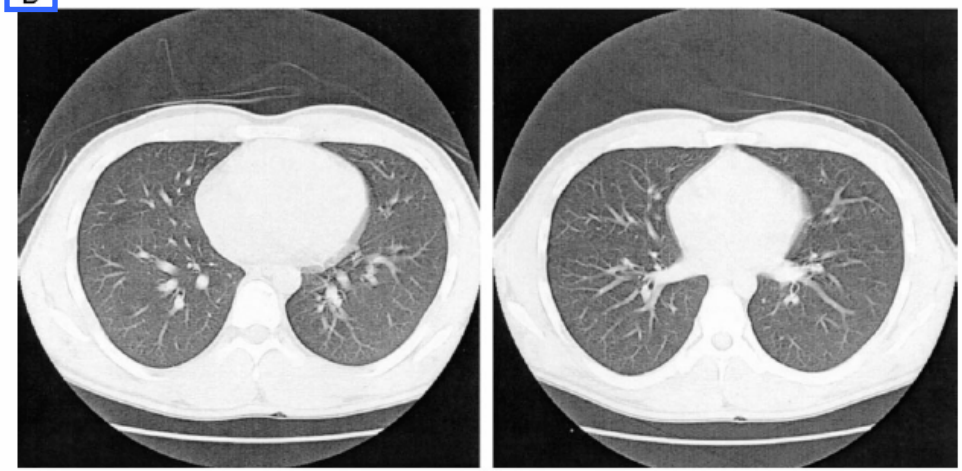
Anesth Analg 2003;97:1835–9

A

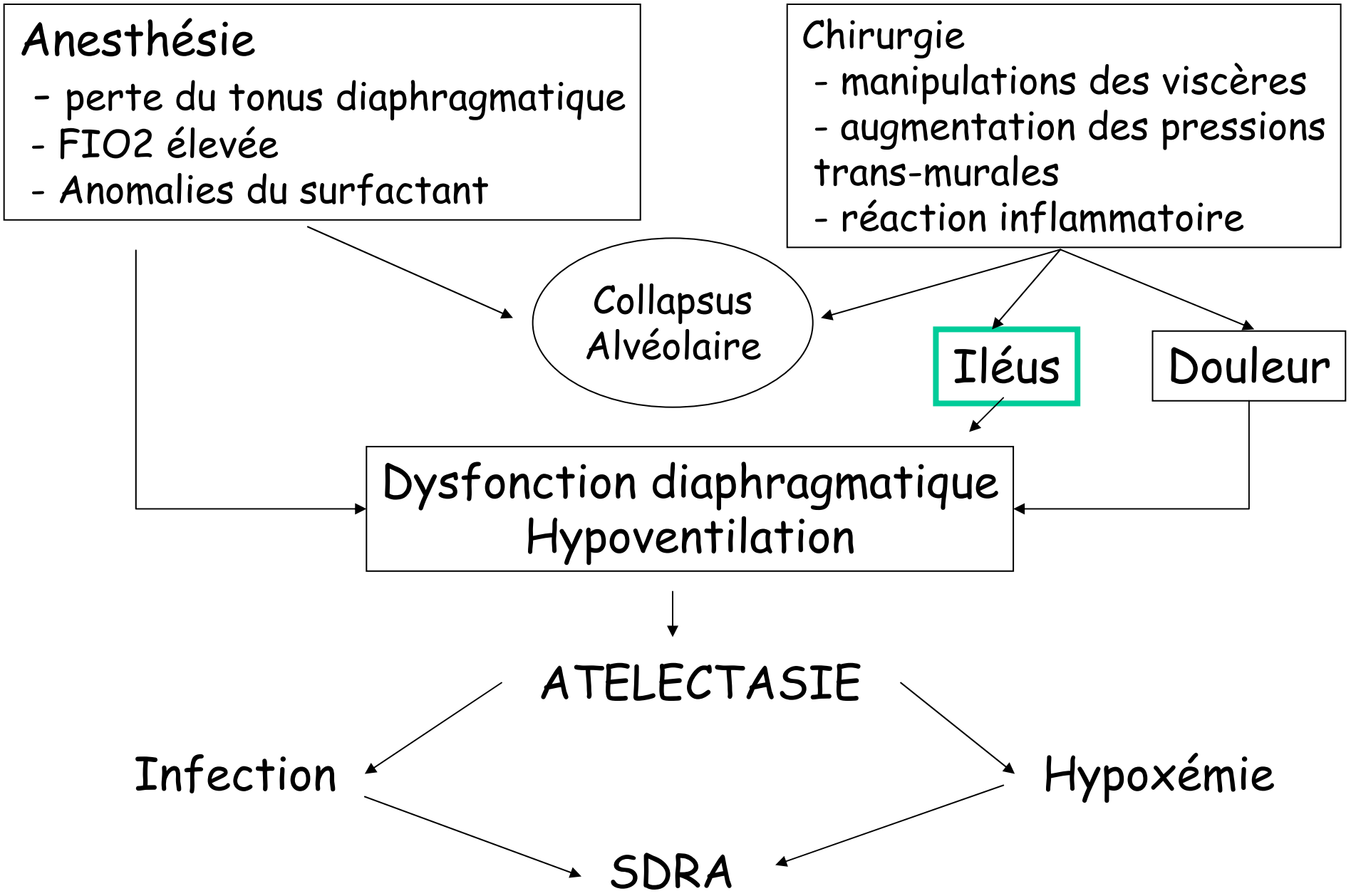


Before induction | After intubation

B



Before induction | After intubation


Anesthésie
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- FIO2 élevée
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Dysfonction diaphragmatique Hypoventilation
ATELECTASIE
Infection
Hypoxémie
SDRA

Anesthesiology 2005; 103:25–32

Effect of Intraoperative Fluid Management on Outcome after Intraabdominal Surgery

Vadim Nisanevich, M.D., Itamar Felsenstein, M.D.,† Gidon Almogy, M.D.,† Charles Weissman, M.D.,‡ Sharon Einav, M.D.,§ Idit Matot, M.D.||*

Complications	Liberal Protocol Group (n = 75)	Restrictive Protocol Group (n = 77)
Infectious		
Wound dehiscence/infection	11	7
Peritonitis/anastomotic leak/ intraabdominal abscess	3	2
Pneumonia	5	3
Urinary tract infection	2	3
Sepsis	1	0
Cardiovascular		
Myocardial infarction	1	1
Congestive heart failure/pulmonary edema	2	0
Arrhythmias (need to start new treatment)	3	1
Cerebrovascular accident	0	0
Gastrointestinal		
Bleeding	0	0
Bowel obstruction	2	0
Pulmonary		
Acute respiratory distress syndrome	2	0
Pulmonary emboli	0	0
Renal		
Renal dysfunction	0	0
Death	0	0
Total number of complications	32	17
Total number of patients with complications	23	13*

* $P < 0.05$ *vs.* liberal protocol group.

Reprise de transit
- 4 (3-7)jours dans le groupe LPG
- 3 (2-7) jours dans le groupe RPG

p = 0,01

Effects of Intravenous Fluid Restriction on Postoperative Complications: Comparison of Two Perioperative Fluid Regimens

A Randomized Assessor-Blinded Multicenter Trial

Brandstrup et al *Annals of Surgery* • Volume 238, Number 5, November 2003

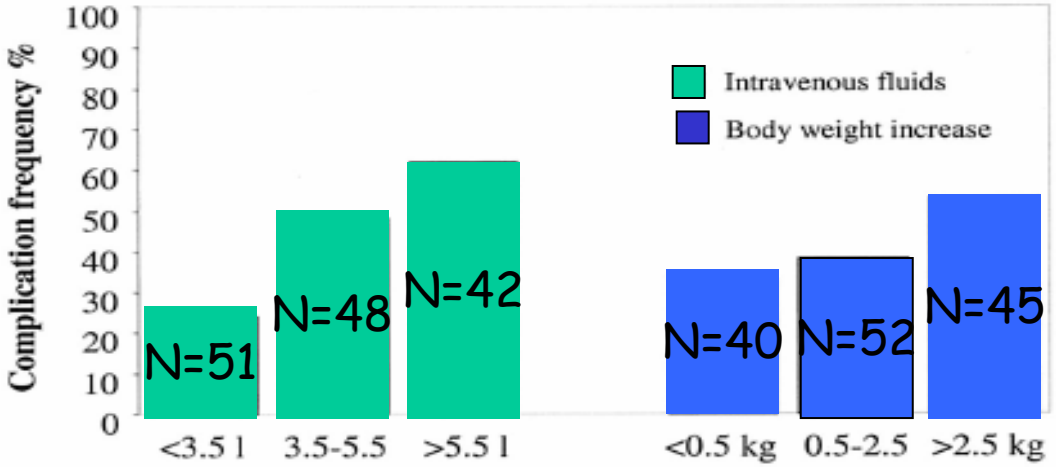


TABLE 3. Number of Patients With Complications (Per-Protocol Analysis)

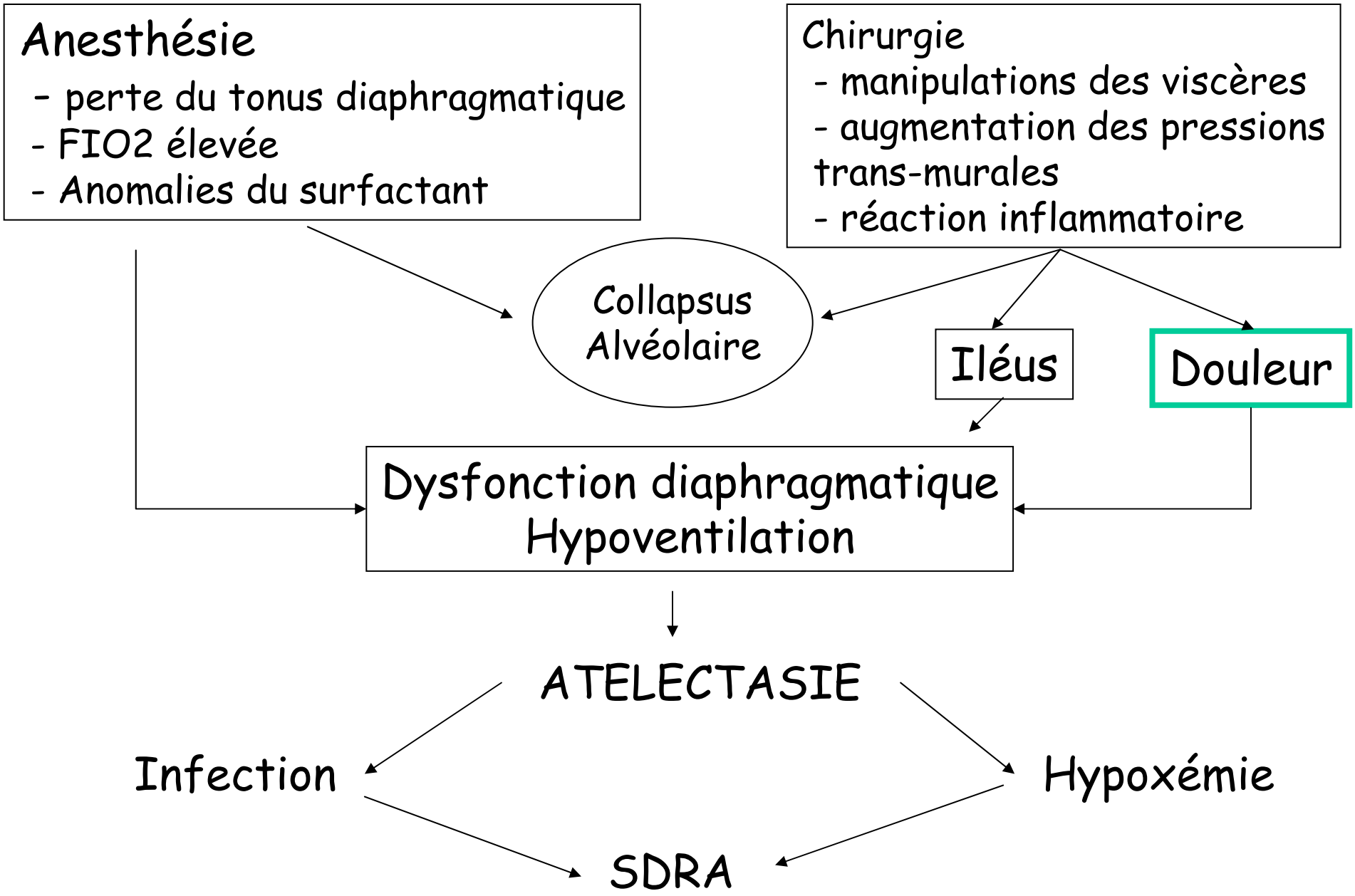
	Blinded Assessment			Unblinded Assessment		
	Restricted Group	Standard Group	*P* value	Restricted Group	Standard Group	*P* value
Overall complications	21	40	0.003	21	43	0.000
Major complications†	8	18	0.040	8	19	0.026
Minor complications†	15	36	0.000	15	37	0.000
Tissue-healing complications†	11	22	0.040	10	24	0.009
Cardiopulmonary complications†	5	17	0.007	4	18	0.002

$n_1 = 69$ in restricted group and $n_2 = 72$ in standard group.

†Number of patients in subgroups does not add up to number of overall complications because some patients had more than 1 complication.

Réduction de l'iléus post-opératoire

- Réalimentation précoce
  - Balg MK. Dis Colon Rectum 2004;47:516-26
- Utilisation raisonnée de SNG
  - Cheatmann et al. Ann Surg 1295;221:469-76
- Pro-kinétiques
  - Lidocaïne
    - Kaba et al. Anesthesiology 2007;106(1):11-18
- Épargne morphinique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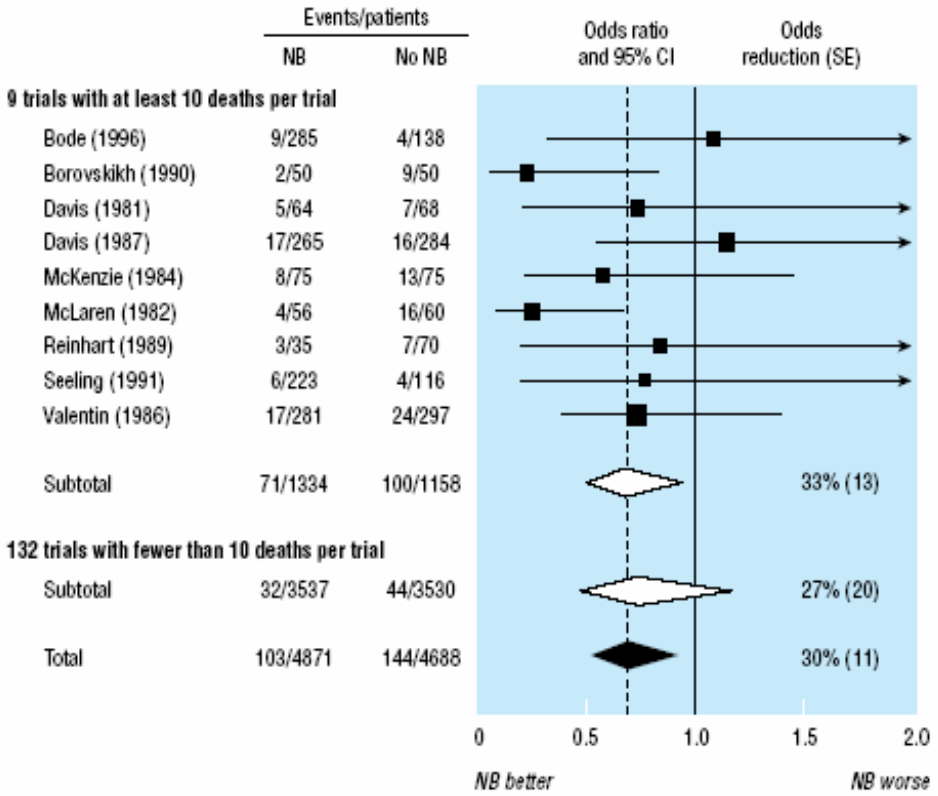
BMJ

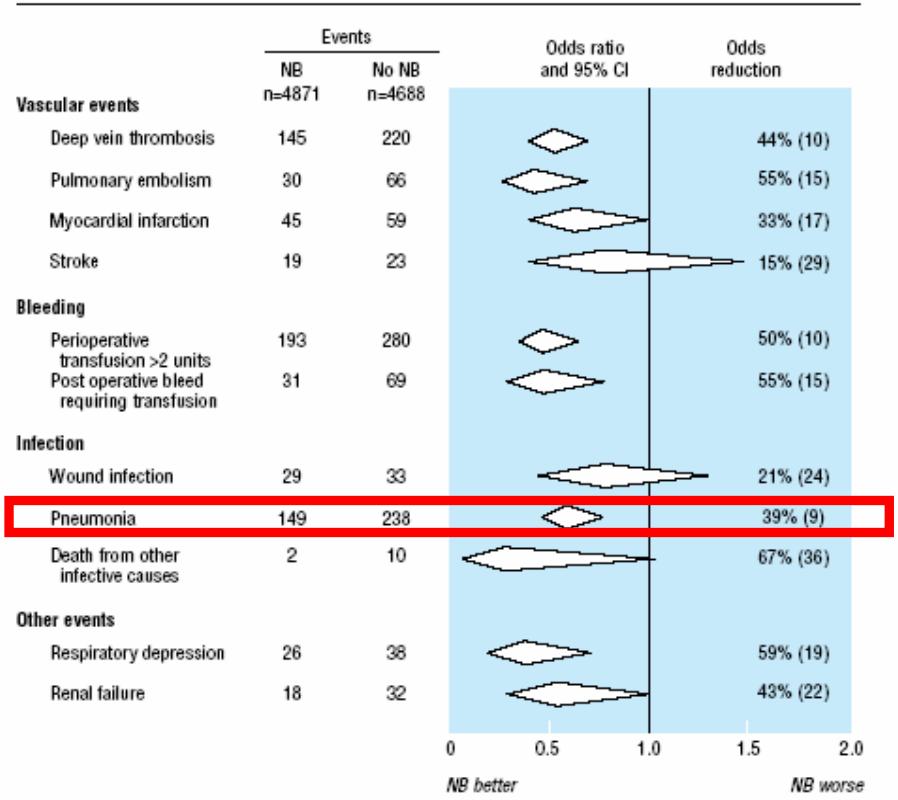
Reduction of postoperative mortality and morbidity with epidural or spinal anaesthesia: results from overview of randomised trials

Anthony Rodgers, Natalie Walker, S Schug, A McKee, H Kehlet, A van Zundert, D Sage, M Futter, G Saville, T Clark and S MacMahon

BMJ 2000;321;1493-

JOURNÉE DE RÉANIMATION ET URGENCES RESPIRATOIRES





Anesthesiology 2003; 99:523–5

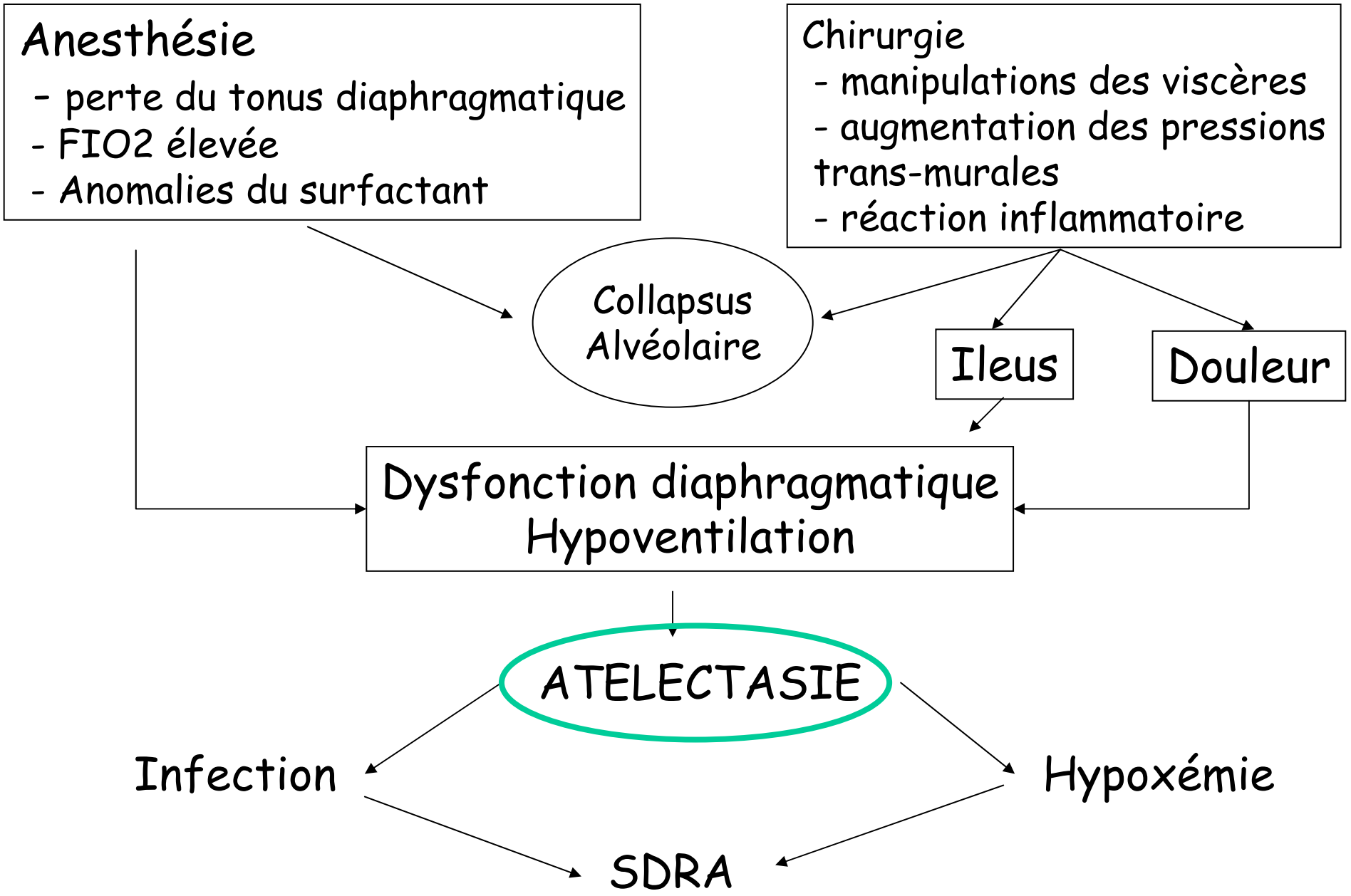
JOURNÉE DE RÉANIMATION ET URGENCES RESPIRATOIRES

Thoracic Epidural Anesthesia

More than Just Anesthesia/Analgesia

Andreas W. Sielenkämper, M.D.* Hugo Van Aken, M.D.

- Atténuation de la réponse inflammatoire post-chirurgie.
- Amélioration de la vascularisation des sutures digestives
- Protection myocardique…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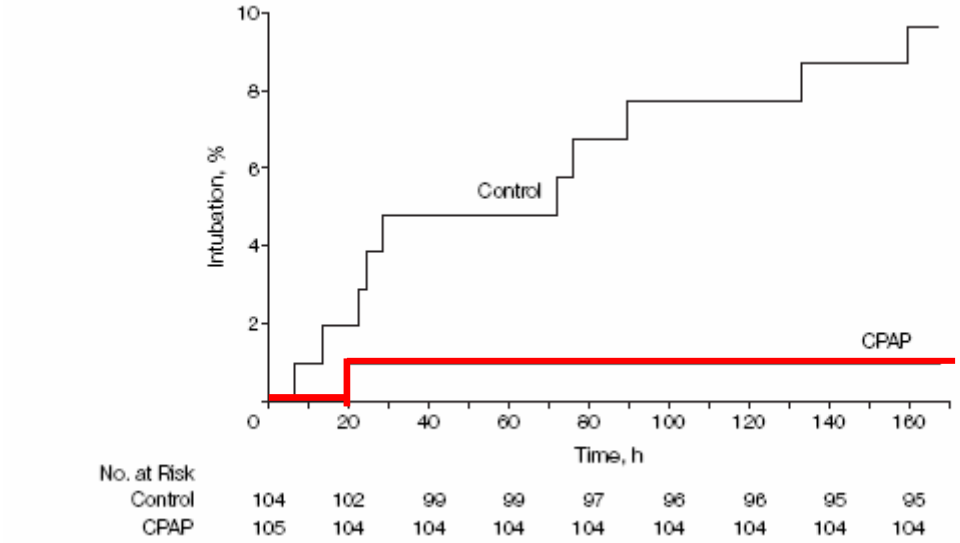
ATELECTASIE
Infection
Hypoxémie
SDRA

Continuous Positive Airway Pressure for Treatment of Postoperative Hypoxemia

A Randomized Controlled Trial



	Control (n = 104)	CPAP (n = 105)	Difference of Means (95% CI)	*P* Value*
ICU length of stay, mean, d	2.6	1.4	−1.2 (−2.0 to −0.3)	.09
Median (95% CI), d	1 (1-11)	1 (1-4)		
Hospital length of stay, mean (SD), d	17 (15)	15 (13)	−2 (−6 to 2)	.10
Median (95% CI)	12 (7-47)	11 (6-35)		
			Relative Risk (95% CI)	
Pneumonia, No. (%)†	10 (10)	2 (2)	0.19 (0.04 to 0.88)	.02
Infection, No. (%)‡	11 (10)	3 (3)	0.27 (0.07 to 0.94)	.03
Sepsis, No. (%)§	9 (9)	2 (2)	0.22 (0.04 to 0.99)	.03
Anastomotic leakage, No.	6	1		
Pneumonia, No.	3	1		
Deaths, No. (%)	3 (3)	0 (0)		.12

Squadrone et al JAMA 2005

Conclusions

- Complications fréquentes et graves
- Moyens de prévention dont l'efficacité est parfois difficile à mettre en évidence de façon isolée
- Nécessité de protocoles de réhabilitation post-opératoires
- Concept de « fast-track surgery »