

Lacanau – Cours Européen – 2016

Indications de la VNI en 2016

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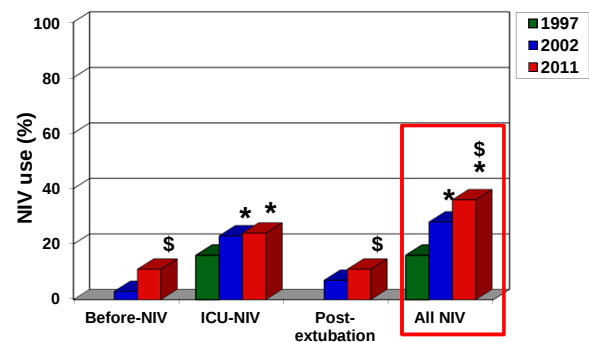


Liens d'intérêt

- Contrats de recherche, investigateur, consultants, interventions, inscriptions à des congrès :
- Maquet
- Covidien, Medtronic
- Dräger
- Philips
- Air Liquide santé
- MSD

NIV use

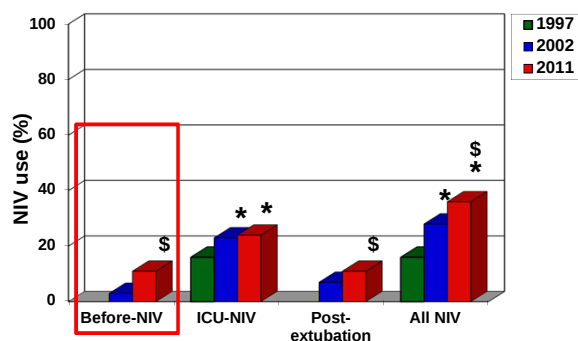
Still increasing



Demoule et Coll. Intensive Care Med 2016

NIV use

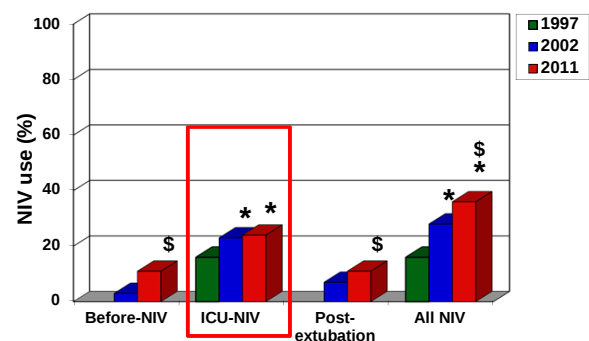
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Demoule et Coll. Intensive Care Med 2016

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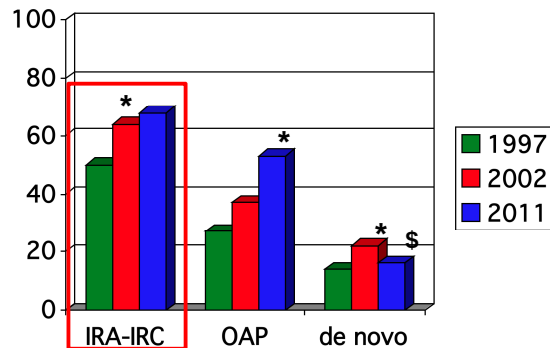
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Demoule et Coll. Intensive Care Med 2016

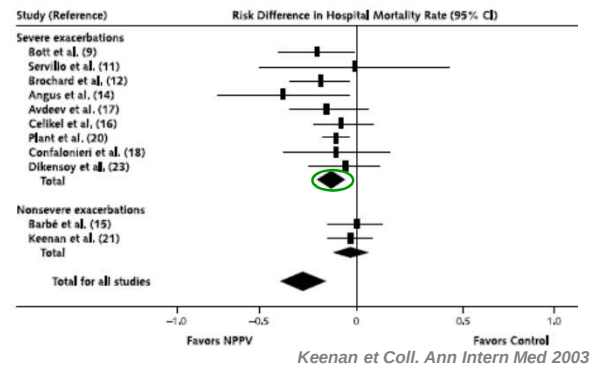
Utilisation de la VNI - France

3 principales indications



BPCO - bénéfice - survie

méta analyse → survie



VNI – alternative à l'intubation

BPCO – VNI en cas de coma

Variable	Success (n = 76)	Failure (n = 19)	p Value
CCS			
Admission	6.5 ± 1.8	6.1 ± 1.5	0.341
First hour	11.2 ± 2.0	7.9 ± 2.2	< 0.0001
pH			
Admission	7.13 ± 0.06	7.11 ± 0.08	0.631
First hour	7.23 ± 0.05	7.17 ± 0.05	< 0.0001
Paco ₂ , mm Hg			
Admission	98 ± 18	102 ± 25	0.513
First hour	78 ± 16	95 ± 25	< 0.0001
Pao ₂ /Fio ₂ ratio			
Admission	138 ± 40	140 ± 50	0.907
First hour	195 ± 40	166 ± 42	0.008

Diaz et coll. Chest 2005

VNI – alternative à l'intubation

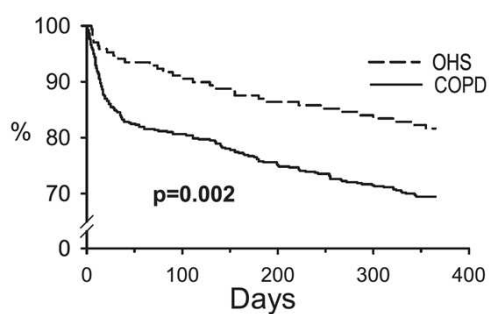
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Diaz et coll. Chest 2005

VNI – obésité-hypoventilation

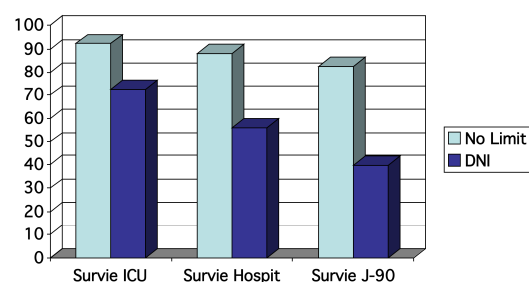
pronostic



Carrillio et coll. Am J Respir Crit Care Med

VNI et DNI – 20 % des VNI

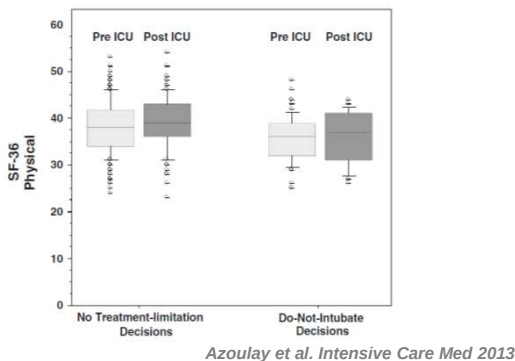
mortalité : réanimation, hôpital, J90



Azoulay et al. Intensive Care Med 2013

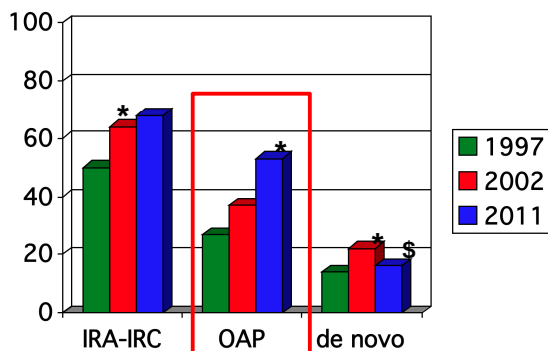
VNI et DNI – qualité de vie

SF36 - Physique

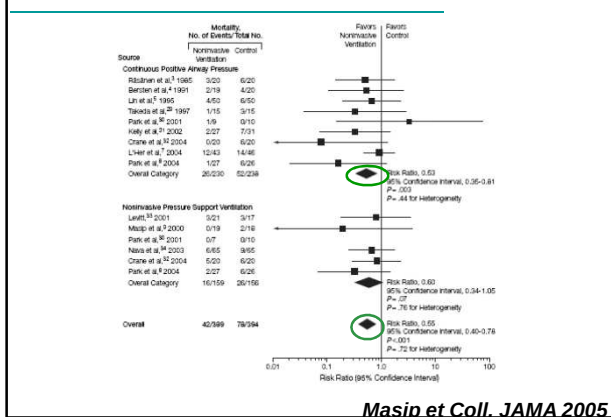


Utilisation de la VNI - France

3 principales indications

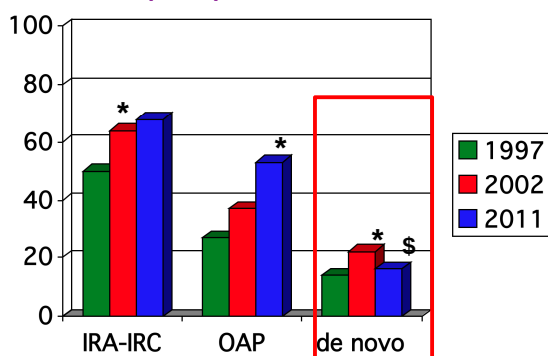


OAP - bénéfice – survie réanimation

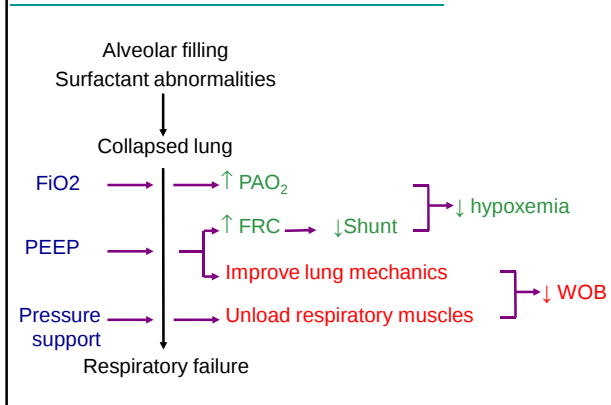


Utilisation de la VNI - France

3 principales indications

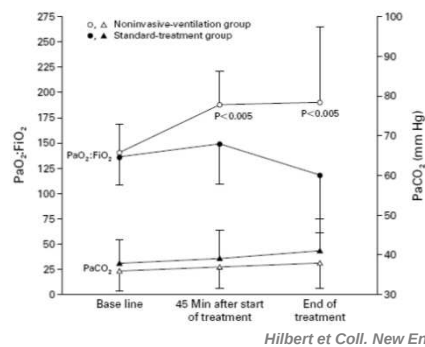


VNI dans l'IRA de novo : mécanisme



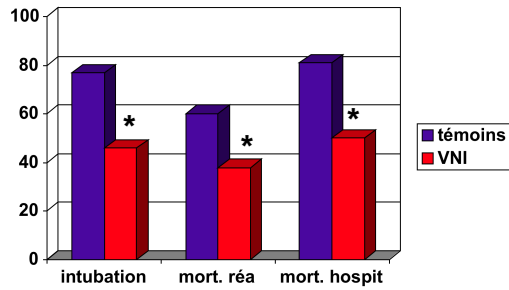
IRA de novo

VNI : effet attendu



IRA de novo – l'étude positive...

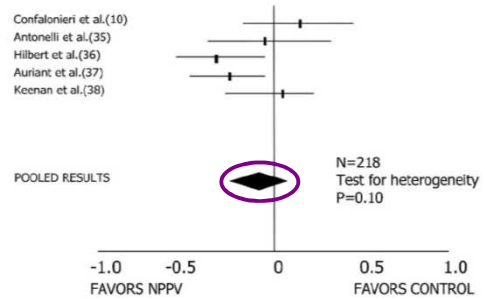
immunodéprimés



Hilbert et Coll. New Engl J Med 2001

IRA de novo - méta analyse

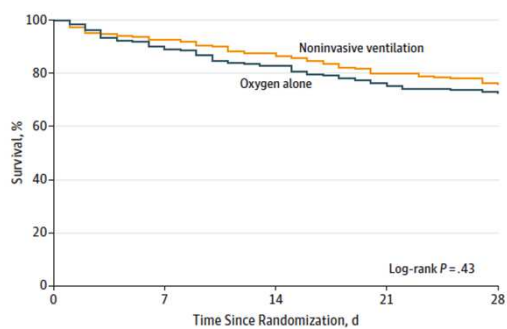
mortalité en réanimation



Keenan et Coll. Crit Care Med 2004

IRA de novo – immunodéprimé

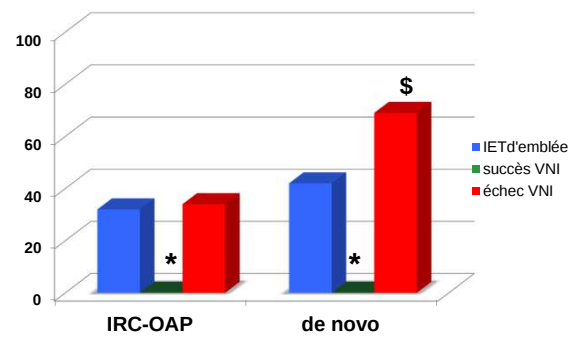
Survie



Azuolay et Coll. JAMA 2015

IRA de novo – Est ce raisonnable ?

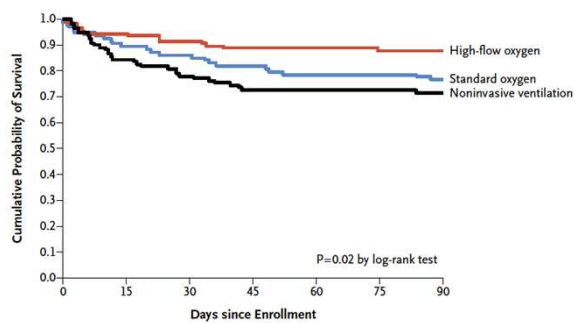
Impact de l'échec de la VNI sur la mortalité



Demoule et coll. Intensive Care Med 2006

Oxygène haut débit

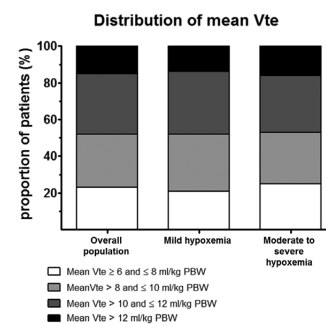
Mortalité



Frat et coll. New Engl J Med 2015

Pourquoi la VNI serait elle délétère ?

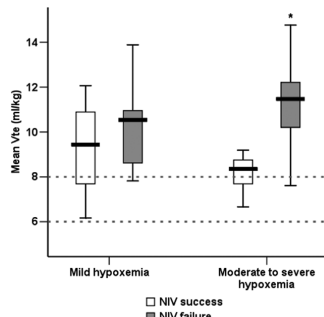
Impact du volume courant



Carteaux et coll. Crit Care Med 2015

Pourquoi la VNI serait elle délétère ?

VT et succès de la VNI



Carteaux et coll. Crit Care Med 2015

Pourquoi la VNI serait elle délétère ?

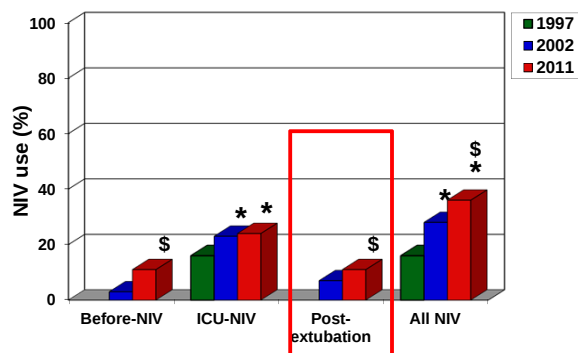
VT et mortalité

Risk Factors	Adjusted Hazard Ratio (95% CI) ^a	p
Simplified Acute Physiology Score II (30)	1.024 (1.007–1.041)	0.013
Immunosuppression	1.351 (0.598–3.056)	0.476
Pao ₂ /Fio ₂ before NIV	0.995 (0.989–1.001)	0.109
Mean expired tidal volume during NIV, per mL/kg predicted body weight	1.286 (1.069–1.547)	0.008

Carteaux et coll. Crit Care Med 2015

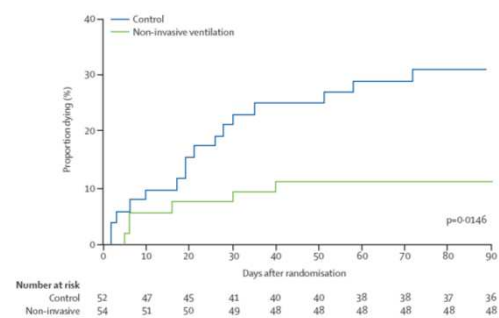
NIV use

Still increasing



post-extubation - prophylactique

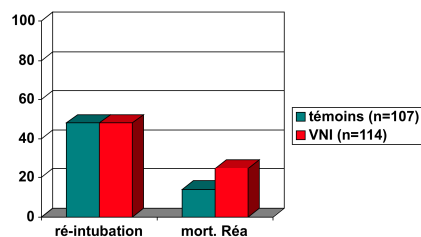
PaCO₂ > 45 mmHg



Ferrer et Coll. Lancet 2009

post-extubation - curatif

multicentrique – non sélectionnés

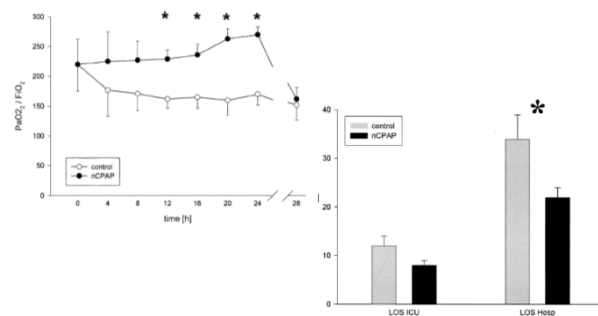


	témoins (n=107)	VNI (n=114)	p
délai ré-intubation (j)	3 [0-17]	12 [2-28]	0,02
durée hospit. réa (j)	18 [11-26]	18 [11-30]	0,59

Esteban et Coll. New Engl J Med 2006

post-op – aorte thoracoabdominale

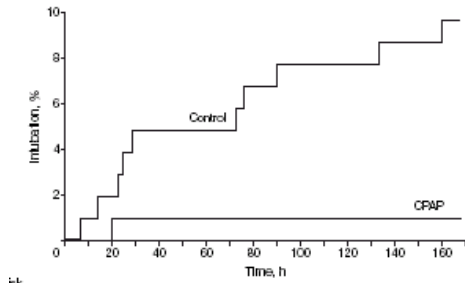
VNI prophylactique



Kingden-Milles et Coll. Chest 2005

post-op – laparotomie

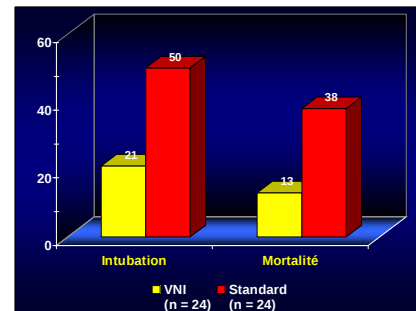
laparo>90 min – PaO₂/FiO₂<300 à H1



Squadron et Coll. JAMA 2005

post-opératoire – curatif

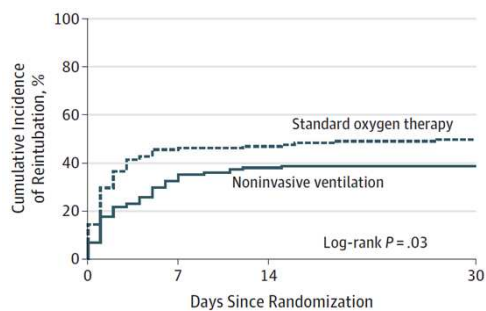
résection pulmonaire -



Auriat et coll. Am J Respir Crit Care Med 2001

post-opératoire – curatif – Chir dig

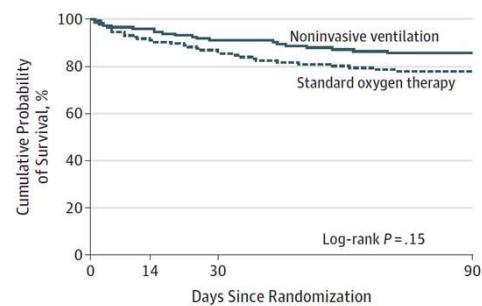
Ré-intubation



Jaber et Coll. JAMA 2016

post-opératoire – curatif – Chir dig

Mortalité



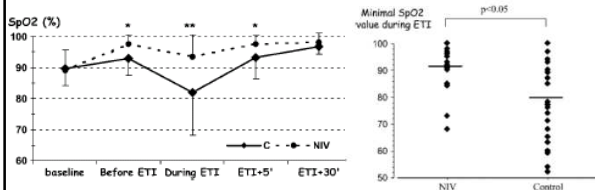
Jaber et Coll. JAMA 2016

intubation - préoxygénation

PaO₂<100 mmHg / O₂=10 l/min

SpO₂ moyenne

SpO₂ mini



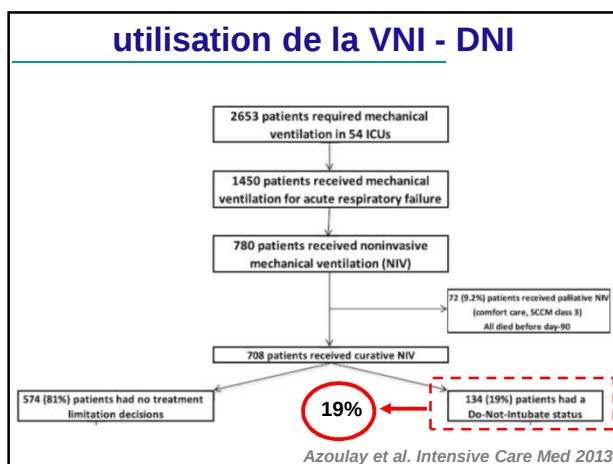
Baillard et Coll. Am J Respir Crit Care Med 2006

Conclusion

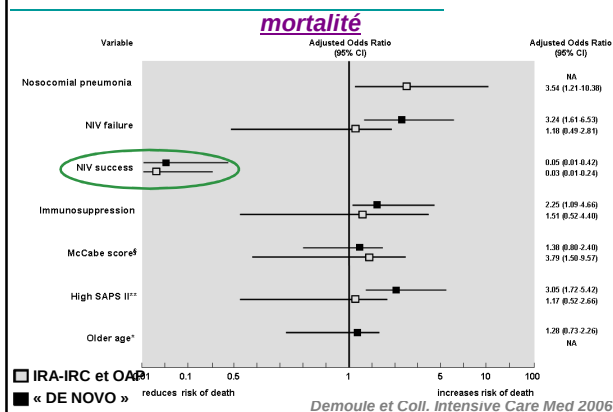
La VNI en 2016

- indications bien démontrées
 - BPCO : toujours des enjeux
 - OAP
- indications moins bien montrées
 - IRA de novo
 - Oxygène humidifié à haut débit ?
 - nouvelles études nécessaires ?
- VNI prophylactique post-extubation
 - Expansion
 - Oxygène humidifié à haut débit ?

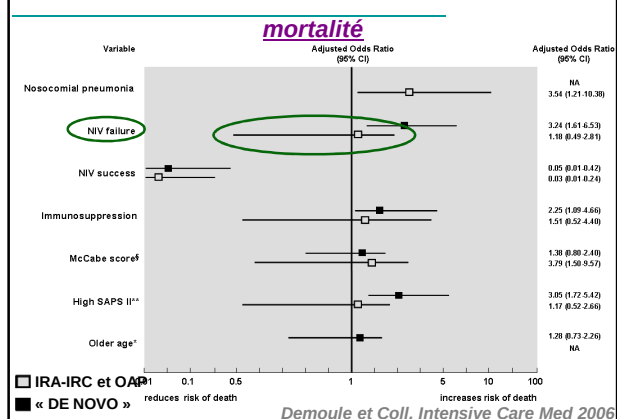
utilisation de la VNI - DNI



BPCO et OAP - « vraie vie »



BPCO et OAP - « vraie vie »



IRA de novo – Un risque ?

