Comment les nouvelles RFE sur l'intubation peuvent vous faciliter la vie ?

Pr X.Combes, SAMU 33, CHU de Bordeaux

Conflits d'intérêt

- Expert pour la RFE SFAR-SFMU « intubation en urgence chez l'adulte hors bloc opératoire et hors réanimation »
- Coordonnateur PRHC « osetim »

RECOMMANDATIONS FORMALISEES D'EXPERTS

De la **Société Française d'Anesthésie et Réanimation (SFAR)**

ET

De la **Société Française de Médecine d'Urgence (SFMU)**

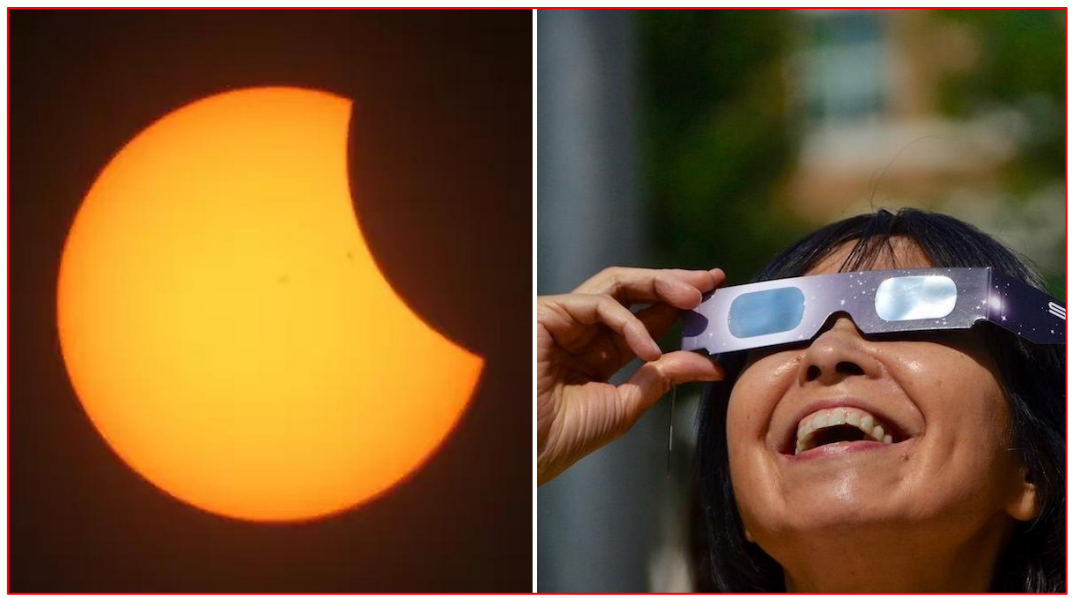
Intubation en urgence d'un adulte hors bloc opératoire et hors unité des soins critiques

Emergency intubation of an adult outside the operating room and intensive care unit

2024

Texte validé par le Comité des Référentiels Cliniques de la SFAR le 25/10/2024, le Conseil d'Administration de la SFAR le 03/12/2024, le Comité de Référentiels de la SFMU le 25/10/2024, le Conseil d'Administration de la SFMU le 21/11/2024.

Auteurs : Thomas CLAVIER, Eric CESAREO, Denis FRASCA, Frédéric ADNET, Marie-Pierre BONNET, Fanny VARDON, Nathalie BRUNEAU, Xavier COMBES, Julie CONTENTI, Anne-Laure FERAL-PIERSSENS, Michel GALINSKI, Jérémy GUENEZAN, Cédric GIL-JARDINE, Alice HUTIN,

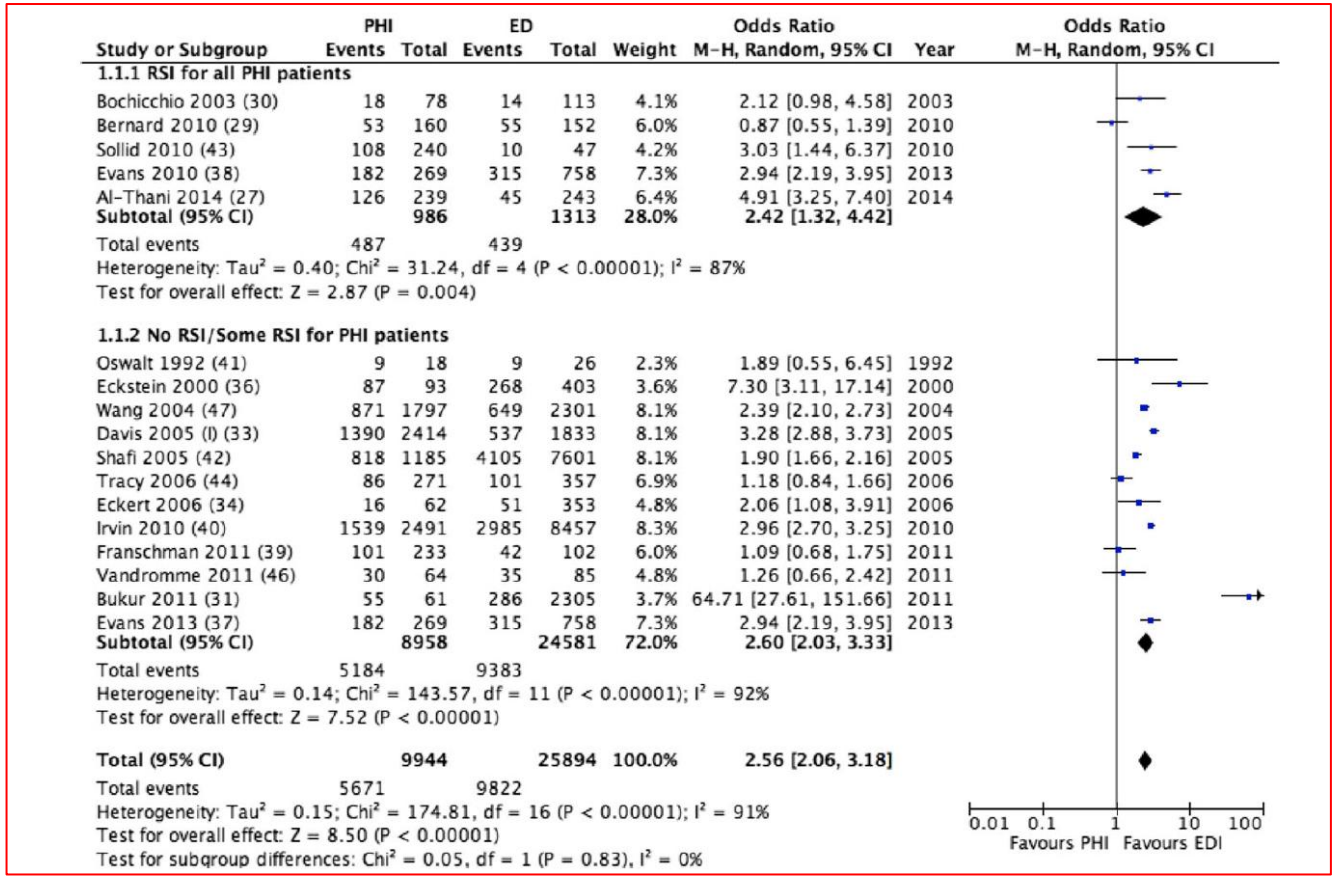


On intube moins…..

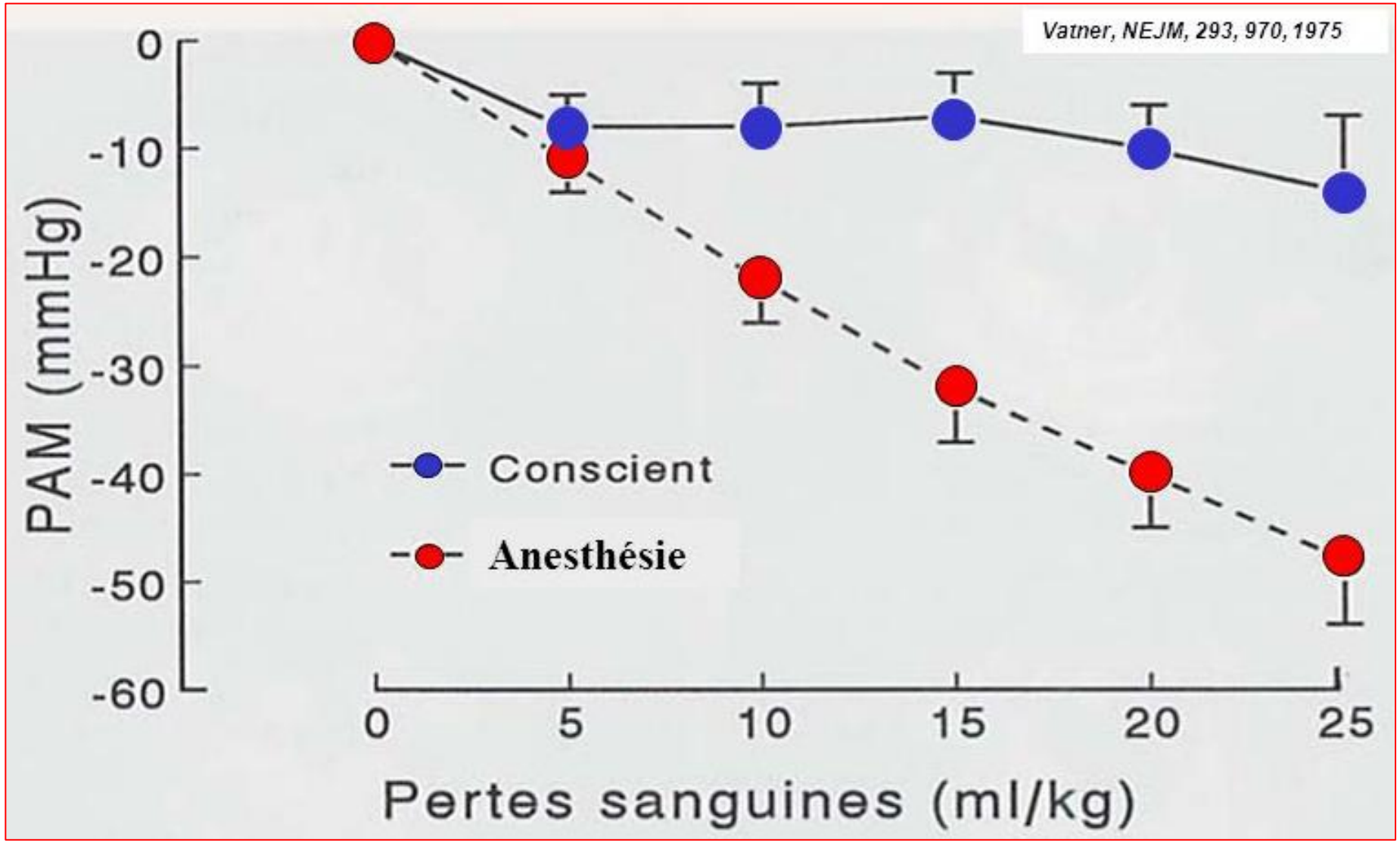
- Choc hémorragique
- Traumatisme pénétrant du tronc
- Etat de mal épileptique
- Coma toxique
- ACR

A systematic review and meta-analysis comparing mortality in pre-hospital tracheal intubation to emergency department intubation in trauma patients

Espen Fevang[1,2*], Zane Perkins[3,4], David Lockey[3,4,5], Elisabeth Jeppesen[1,5] and Hans Morten Lossius[1,5]



Critical care 2017


Vatner, NEJM, 293, 970, 1975
PAM (mmHg)
0
-10
-20
-30
-40
-50
-60
Conscient
Anesthésie
0
5
10
15
20
25
Pertes sanguines (ml/kg)

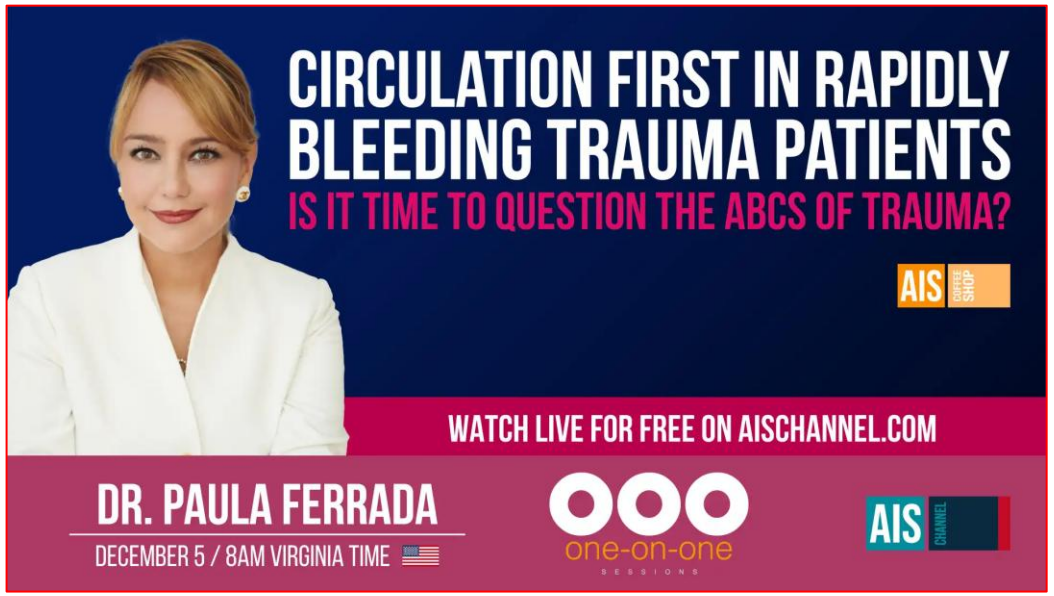
Clinical Review & Education

Surgical Innovation

Circulation First for the Rapidly Bleeding Trauma Patient—It Is Time to Reconsider the ABCs of Trauma Care

Paula Ferrada, MD; Sharmila Dissanaike, MD

2023



JAMA®
The Journal of the American Medical Association

JAMA | Original Investigation | CARING FOR THE CRITICALLY ILL PATIENT

Effect of Noninvasive Airway Management of Comatose Patients With Acute Poisoning

A Randomized Clinical Trial

Yonathan Freund, MD, PhD; Damien Viglino, MD, PhD; Marine Cachanado, MSc; Clémentine Cassard, MD;

JAMA. doi:10.1001/jama.2023.24391
Published online November 29, 2023.

- Coma toxique
- Pas d'autres défaillances

Median Glasgow Coma Scale score, median (IQR)	6 (3-7)	6 (3-7)
Glasgow coma scale score = 3	38 (33)	28 (23)

Outcome	No. (%) Restricted intubation (n = 116)	No. (%) Control (n = 109)	Value (95% CI)	Absolute difference, percentage points (95% CI)[b]
Components of the primary outcome				
In-hospital death	0	0	NC	NC
Intensive care unit admission	46 (39.7)	72 (66.1)	OR = 0.23 (0.12 to 0.44)	−29.2 (−41.0 to −17.4)
Median length of intensive care unit stay (IQR), h	0 (0 to 18.5)	24.0 (0 to 57.0)	RR = 0.39 (0.24 to 0.66)	
Median length of hospital stay (IQR), h	21.5 (10.5 to 44.5)	37.0 (16.0 to 79.0)	RR = 0.74 (0.53 to 1.03)	
Mechanical ventilation	21 (18.1)	65 (59.6)	OR = 0.12 (0.06 to 0.24)	−42.5 (−54.1 to −30.9)
Additional secondary outcomes				
Median length of mechanical ventilation (IQR), h	0 (0 to 0)	6.0 (0 to 21.0)	RR = 0.21 (0.11 to 0.38)	
Occurrence of pneumonia	8 (6.9)	16 (14.7)	OR = 0.43 (0.18 to 1.05)	−7.8 (−15.9 to 0.3)

ISR

Y a-t-il encore quelque chose à en dire …..

Pas de propofol chez le patient à risque …

Research

JAMA | Original Investigation | CARING FOR THE CRITICALLY ILL PATIENT

2021

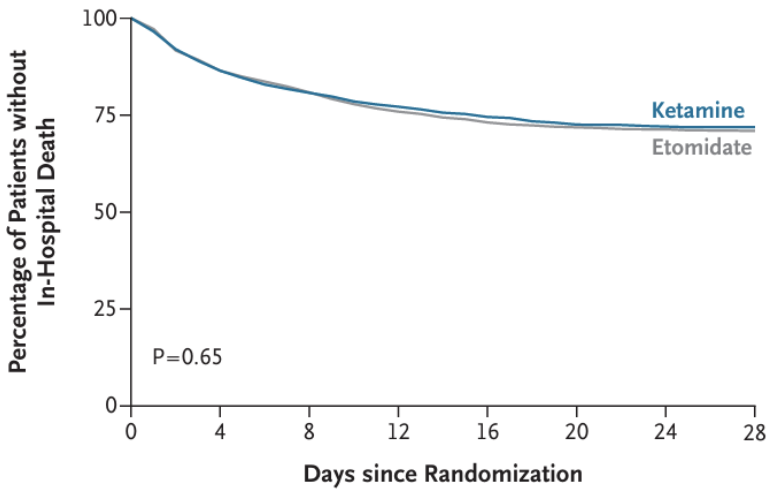
Intubation Practices and Adverse Peri-intubation Events in Critically Ill Patients From 29 Countries

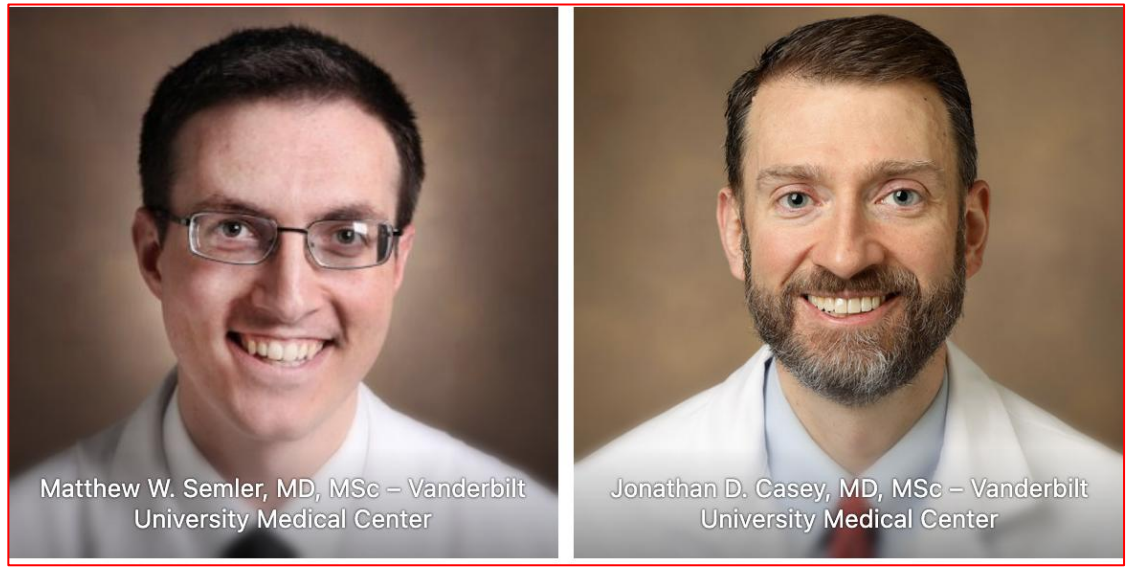
Vincenzo Russotto, MD; Sheila Nainan Myatra, MD; John G. Laffey, MD, MA; Elena Tassistro, MS; Laura Antolini, PhD; Philippe Bauer, MD, PhD; Jean Baptiste Lascarrou, MD, PhD; Konstanty Szułdrzyński, MD, PhD; Luigi Camporota, MD; Paolo Pelosi, MD; Massimiliano Sorbello, MD; Andy Higgs, MD; Robert Greif, MD; Christian Putensen, MD; Christina Agvald-Öhman, MD, PhD; Athanasios Chalkias, MD, PhD; Kristaps Bokums, MD; David Brewster, MD; Emanuela Rossi, MS; Roberto Fumagalli, MD; Antonio Pesenti, MD; Giuseppe Foti, MD; Giacomo Bellani, MD, PhD; for the INTUBE Study Investigators

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Ketamine or Etomidate for Tracheal Intubation of Critically Ill Adults





Outcome	Ketamine (N=1176)	Etomidate (N=1189)	Difference (95% CI)*
Primary outcome: in-hospital death from any cause by day 28 — no. (%)†	330 (28.1)	345 (29.1)	−0.8 (−4.5 to 2.9)‡
Secondary outcome: cardiovascular collapse during the interval between induction of anesthesia and 2 minutes after intubation — no. (%)	260 (22.1)	202 (17.0)	5.1 (1.9 to 8.3)
Systolic blood pressure <65 mm Hg§	73 (6.4)	64 (5.5)	0.9 (−1.0 to 2.8)
Receipt of a new or increased dose of vasopressors	251 (21.3)	189 (15.9)	5.4 (2.3 to 8.6)
Cardiac arrest¶	12 (1.0)	10 (0.8)	0.2 (−0.6 to 1.0)

Quel curare ?

JAMA Network

QUESTION Is rocuronium noninferior to succinylcholine for first-attempt endotracheal intubation success among patients undergoing rapid sequence intubation in an out-of-hospital emergency setting?

CONCLUSION This randomized trial did not demonstrate the noninferiority of rocuronium compared with succinylcholine with regard to first-attempt endotracheal intubation success.

POPULATION

736 Men
490 Women

Adults requiring out-of-hospital intubation

Mean age: 56 years

LOCATIONS

17
Emergency medical units in France

INTERVENTION

1226 Patients analyzed

610
Rocuronium
1.2 mg/kg Rocuronium via IV bolus injection

616
Succinylcholine
1 mg/kg Succinylcholine via IV bolus injection

PRIMARY OUTCOME

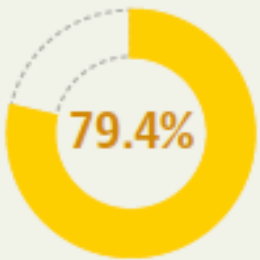
Intubation success rate in first attempt, with a noninferiority margin of 7%

FINDINGS

First-attempt intubation success

Rocuronium
455 of 610 patients

Succinylcholine
489 of 616 patients



The between-group difference did not meet criteria for noninferiority:

-4.8% (1-sided 97.5% CI, −9% to ∞)

Guihard B, Chollet-Xémard C, Lakhnati P, et al. Effect of rocuronium vs succinylcholine on endotracheal intubation success rate among patients undergoing out-of-hospital rapid sequence intubation: a randomized clinical trial [published December 17, 2019]. *JAMA*. doi:10.1001/2019.18254

The NEW ENGLAND JOURNAL of MEDICINE 2023

ORIGINAL ARTICLE

Video versus Direct Laryngoscopy for Tracheal Intubation of Critically Ill Adults

M.E. Prekker, B.E. Driver, S.A. Trent, D. Resnick-Ault, K.P. Seitz, D.W. Russell, J.P. Gaillard, A.J. Latimer, S.A. Ghamande, K.W. Gibbs, D.J. Vonderhaar, M.R. Whitson, C.R. Barnes, J.P. Walco, I.S. Douglas, V. Krishnamoorthy, A. Dagan, J.J. Bastman, B.D. Lloyd, S. Gandotra, J.K. Goranson, S.H. Mitchell, H.D. White, J.A. Palakshappa, A. Espinera, D.B. Page, A. Joffe, S.J. Hansen, C.G. Hughes, T. George, J.T. Herbert, N.I. Shapiro, S.G. Schauer, B.J. Long, B. Imhoff, L. Wang, J.P. Rhoads, K.N. Womack, D.R. Janz, W.H. Self, T.W. Rice, A.A. Ginde, J.D. Casey, and M.W. Semler, for the DEVICE Investigators and the Pragmatic Critical Care Research Group*

Succinylcholine
(Suxamethonium)

ISR, agents à délai d'action court…

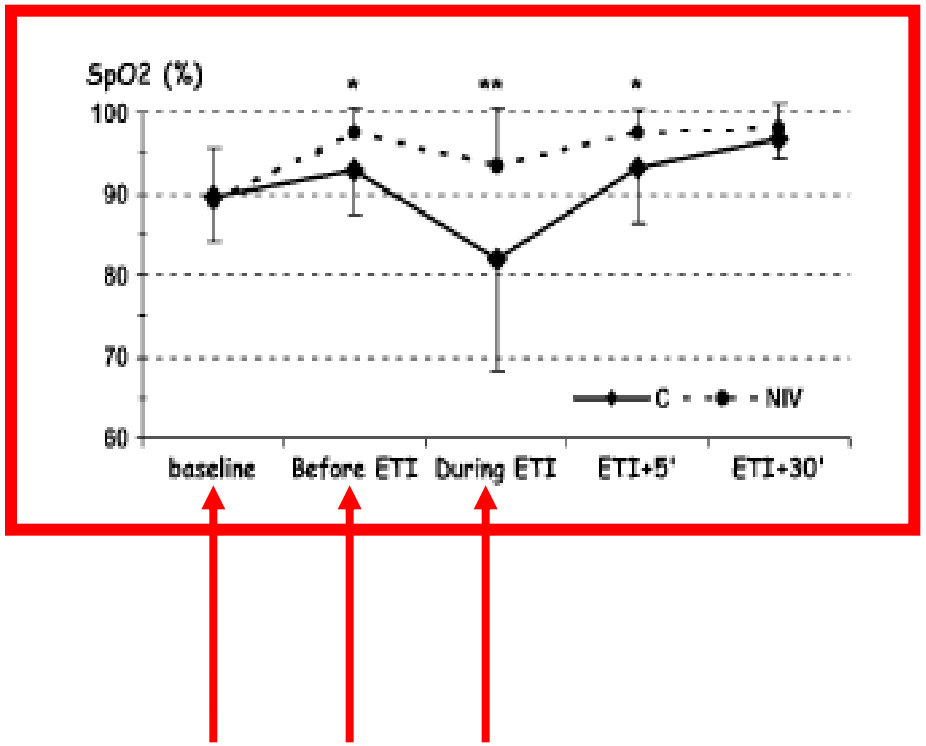
- **Hypnomidate,** Kétamine

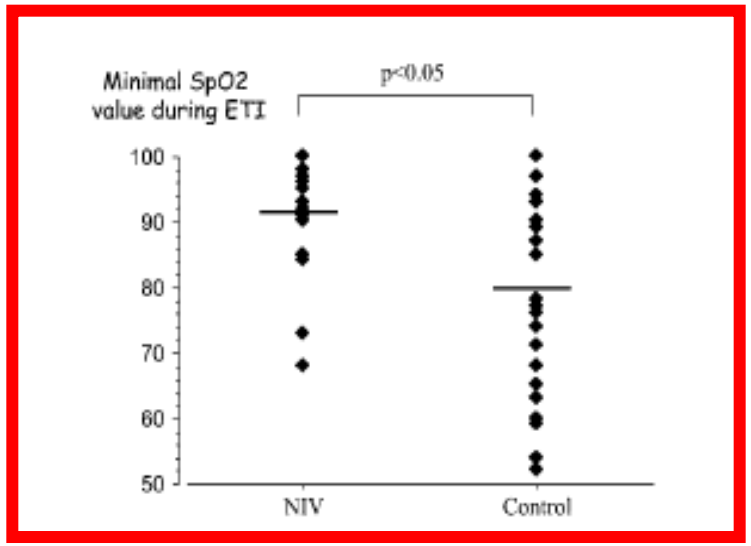
- Succinylcholine : 1 mg/kg
- **Rocuronium : 1-1,2 mg/kg**

Gestion de la désaturation

- Principale complication de l'intubation en urgence
- De 10 à 15%

VNI et pré oxygénation, une vieille histoire…





Baillard C; Am J Respir Crit Care Med 2006

PRAGMATIC CRITICAL CARE RESEARCH GROUP

HOME PATIENTS PROFESSIONALS PUBLICATIONS ABOUT PCCRG

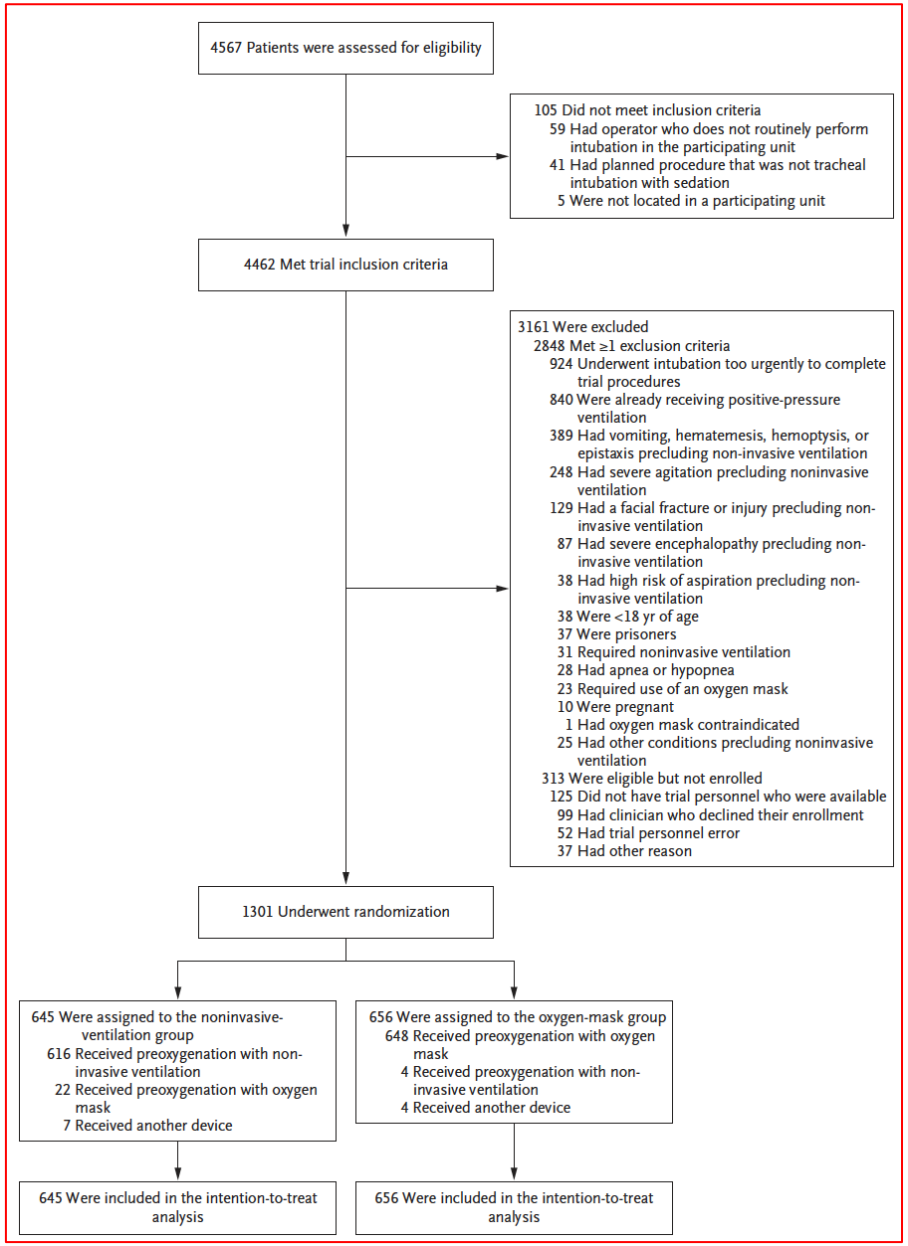
The NEW ENGLAND JOURNAL of MEDICINE

2024

ORIGINAL ARTICLE

Noninvasive Ventilation for Preoxygenation during Emergency Intubation

K.W. Gibbs, M.W. Semler, B.E. Driver, K.P. Seitz, S.B. Stempek, C. Taylor, D. Resnick-Ault, H.D. White, S. Gandotra, K.C. Doerschug, A. Mohamed, M.E. Prekker, A. Khan, J.P. Gaillard, L. Andrea, N.R. Aggarwal, J.C. Brainard, L.A.H. Barnett, S.J. Halliday, V. Blinder, A. Dagan, M.R. Whitson, S.G. Schauer, J.E. Walker, Jr., A.B. Barker, J.A. Palakshappa, A. Muhs, J.M. Wozniak, P.J. Kramer, C. Withers, S.A. Ghamande, D.W. Russell, A. Schwartz, A. Moskowitz, S.J. Hansen, G. Allada, J.K. Goranson, D.G. Fein, P.D. Sottile, N. Kelly, S.M. Alwood, M.T. Long, R. Malhotra, N.I. Shapiro, D.B. Page, B.J. Long, C.B. Thomas, S.A. Trent, D.R. Janz, T.W. Rice, W.H. Self, V.S. Bebarta, B.D. Lloyd, J. Rhoads, K. Womack, B. Imhoff, A.A. Ginde, and J.D. Casey, for the PREOXI Investigators and the Pragmatic Critical Care Research Group*

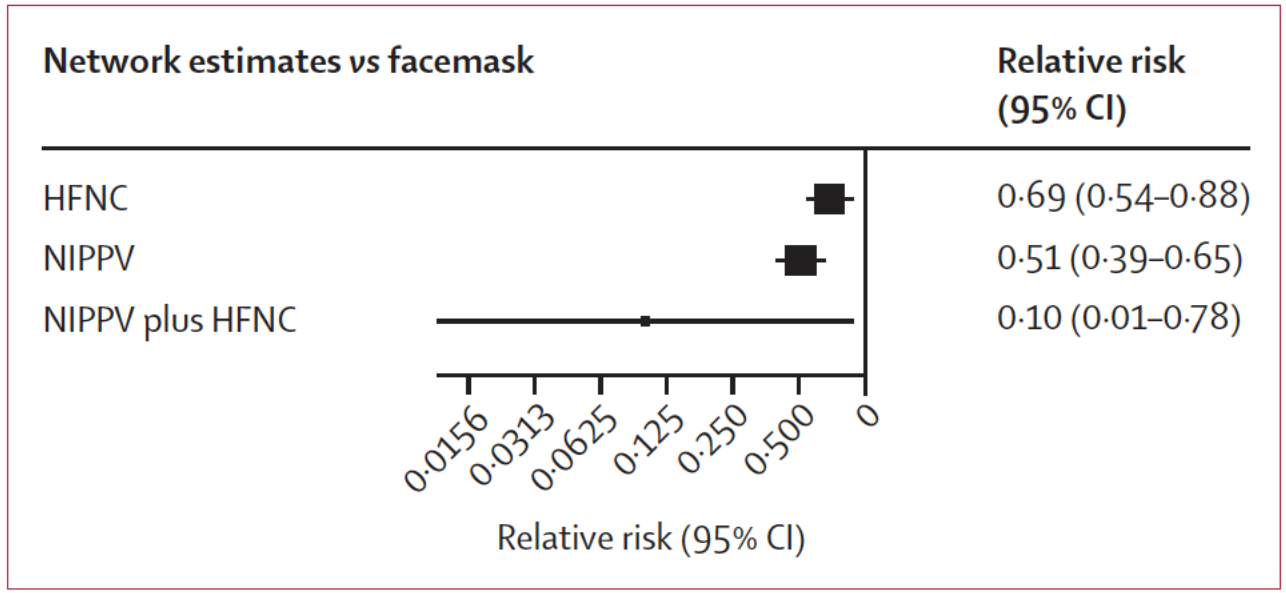


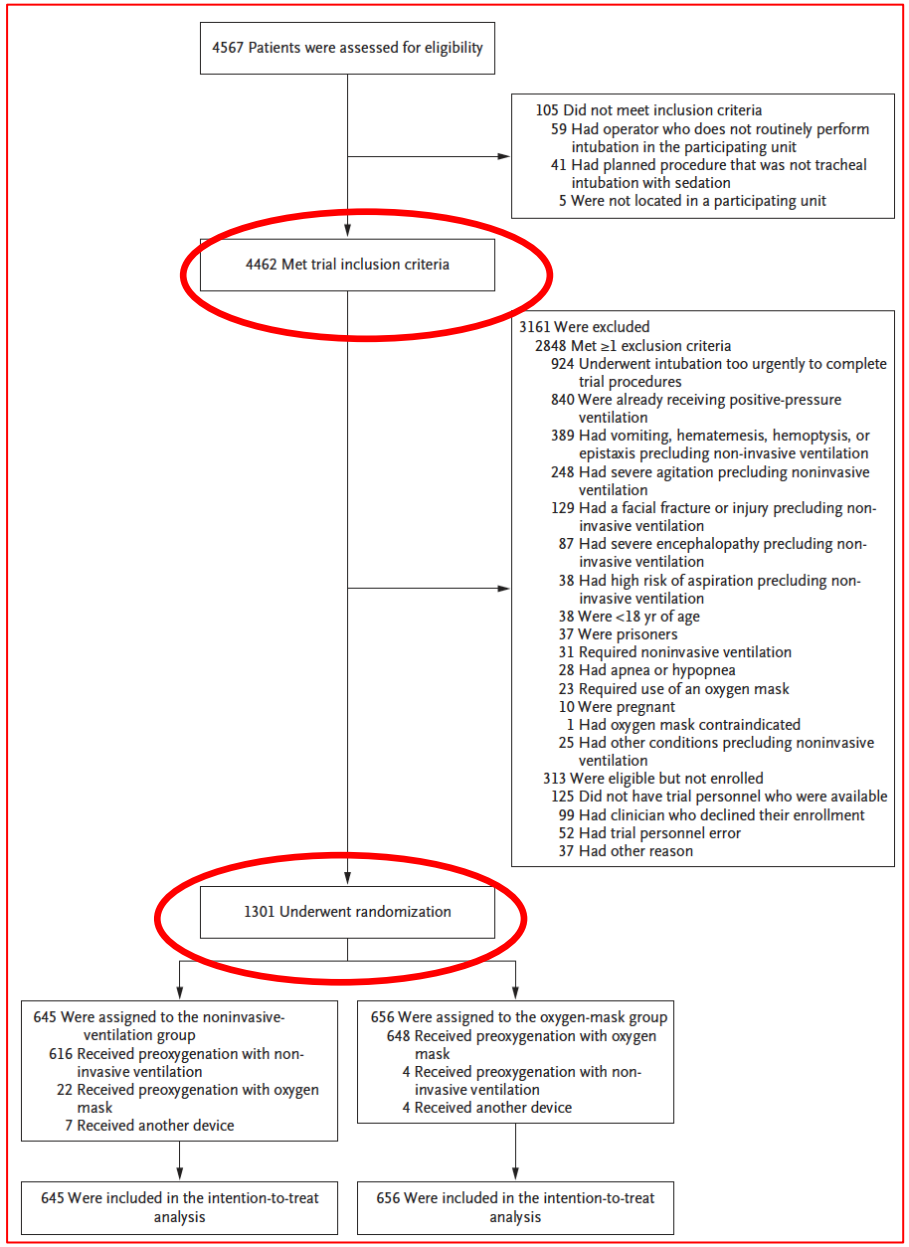
Outcome	Noninvasive Ventilation (N=645)	Oxygen Mask (N=656)	Difference (95% CI)*
Primary outcome			
Hypoxemia during intubation — no./total no. (%)†‡	57/624 (9.1)	118/637 (18.5)	−9.4 (−13.2 to −5.6)§
Secondary outcome			
Median lowest oxygen saturation (IQR) — %‡	99 (95 to 100)	97 (89 to 100)	2 (1 to 3)
Exploratory procedural outcomes			
Lowest oxygen saturation <80% — no./total no. (%)‡	39/624 (6.2)	84/637 (13.2)	−6.9 (−10.2 to −3.7)
Lowest oxygen saturation <70% — no./total no. (%)‡	15/624 (2.4)	36/637 (5.7)	−3.2 (−5.4 to −1.1)
Cardiovascular collapse — no./total no. (%)¶	113/645 (17.5)	127/656 (19.4)	−1.8 (−6.1 to 2.4)
Systolic blood pressure <65 mm Hg — no./total no. (%)	18/621 (2.9)	28/633 (4.4)	−1.5 (−3.6 to 0.6)
New or increased use of vasopressors — no./total no. (%)	111/645 (17.2)	117/656 (17.8)	−0.6 (−4.8 to 3.5)
Cardiac arrest — no./total no. (%)‖	1/645 (0.2)	7/656 (1.1)	−0.9 (−1.8 to −0.1)
Successful intubation on the first attempt — no./total no. (%)	534/645 (82.8)	535/656 (81.6)	1.2 (−2.9 to 5.4)
Median time from induction to intubation (IQR) — seconds	115 (89 to 150)	113 (85 to 152)	2 (−5 to 9)
Exploratory safety outcomes			
Operator-reported aspiration — no./total no. (%)**	6/645 (0.9)	9/656 (1.4)	−0.4 (−1.6 to 0.7)
New infiltrate on chest imaging — no./total no. (%)††	144/509 (28.3)	148/497 (29.8)	−1.5 (−7.1 to 4.1)
New pneumothorax — no./total no. (%)‡‡	7/509 (1.4)	7/497 (1.4)	0.0 (−1.5 to 1.4)
Median oxygen saturation at 24 hr (IQR)§§	97 (95 to 100)	97 (95 to 100)	0 (−1 to 1)
Median F_{IO_2} at 24 hr (IQR)¶¶	0.40 (0.30 to 0.40)	0.40 (0.30 to 0.40)	0.01 (−0.05 to 0.05)
Exploratory clinical outcomes‖‖			
Median ventilator-free days (IQR)	21 (0 to 26)	17 (0 to 25)	4 (−1 to 9)
Median ICU-free days (IQR)	16 (0 to 23)	14 (0 to 23)	2 (−1 to 8)
In-hospital death — no./total no. (%)	209/645 (32.4)	217/656 (33.1)	−0.7 (−5.8 to 4.4)

Preoxygenation strategies for intubation of patients who are critically ill: a systematic review and network meta-analysis of randomised trials

Lancet 2025

Tyler Pitre, Winnie Liu, Dena Zeraatkar, Jonathan D Casey, Joanna C Dionne, Kevin W Gibbs, Adit A Ginde, Natalie Needham-Nethercott, Todd W Rice, Matthew W Semler, Bram Rochwerg





4462 Met trial inclusion criteria

1301 Underwent randomization

Que retenir

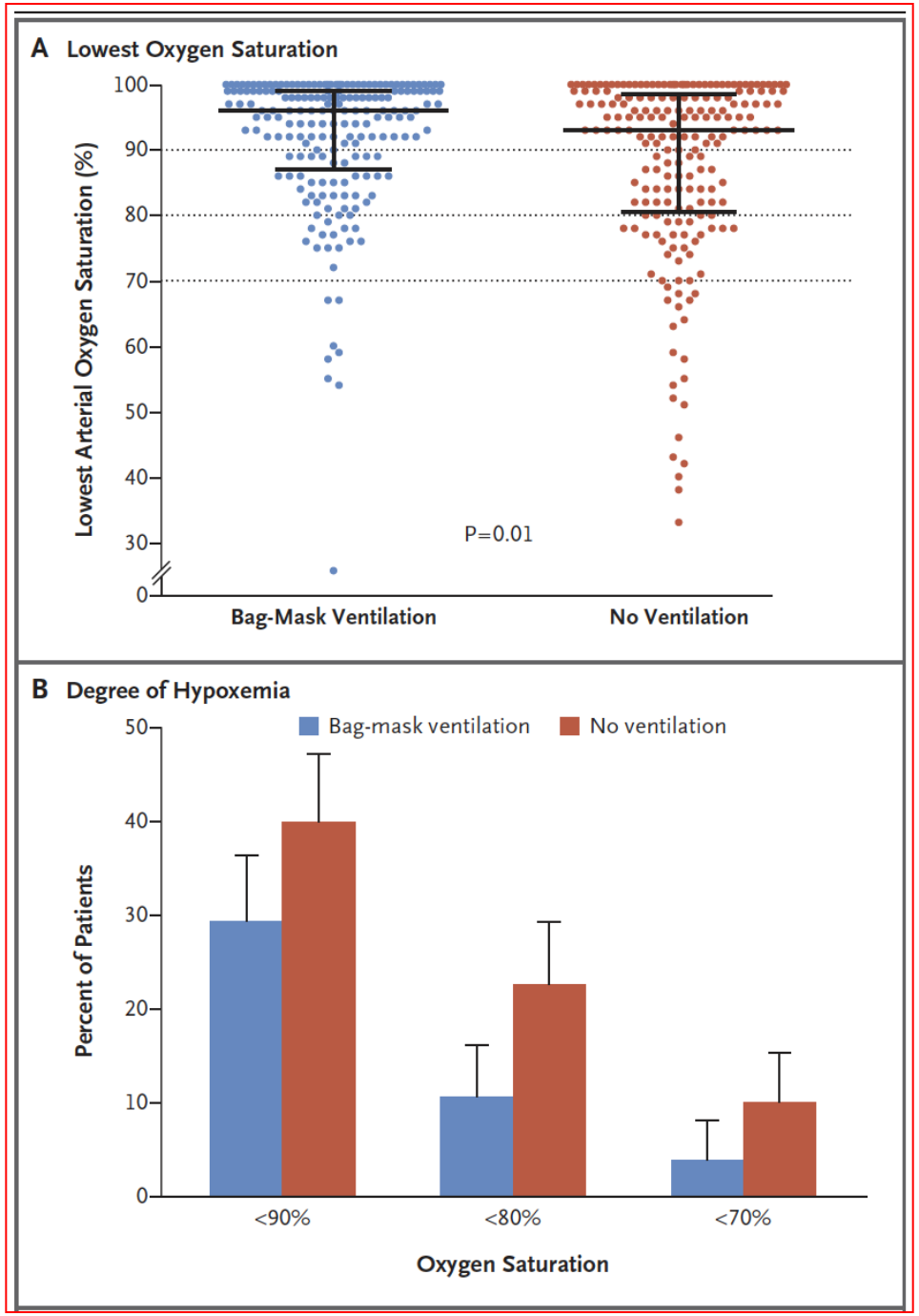
- VNI si possible
- Si sous OHD, le garder
- Si urgence ou contre indication, Masque à haute concentration

The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 FEBRUARY 28, 2019 VOL. 380 NO. 9

Bag-Mask Ventilation during Tracheal Intubation of Critically Ill Adults

Jonathan D. Casey, M.D., David R. Janz, M.D., Derek W. Russell, M.D., Derek J. Vonderhaar, M.D., Aaron M. Joffe, D.O., Kevin M. Dischert, M.D., Ryan M. Brown, M.D., Aline N. Zouk, M.D., Swati Gulati, M.B., B.S., Brent E. Heideman, M.D., Michael G. Lester, M.D., Alexandra H. Toporek, M.D., Itay Bentov, M.D., Ph.D., Wesley H. Self, M.D., Todd W. Rice, M.D., and Matthew W. Semler, M.D., for the PreVent Investigators and the Pragmatic Critical Care Research Group*


A Lowest Oxygen Saturation
Lowest Arterial Oxygen Saturation (%)
100
90
80
70
60
50
40
30
0
P=0.01
Bag-Mask Ventilation
No Ventilation
B Degree of Hypoxemia
Bag-mask ventilation
No ventilation
Percent of Patients
50
40
30
20
10
0
<90%
<80%
<70%
Oxygen Saturation

La fin du laryngoscope ?

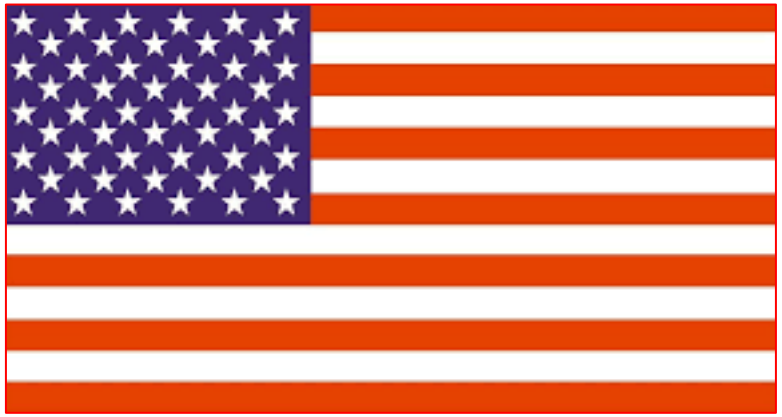
The NEW ENGLAND JOURNAL of MEDICINE

2023

ORIGINAL ARTICLE

Video versus Direct Laryngoscopy for Tracheal Intubation of Critically Ill Adults

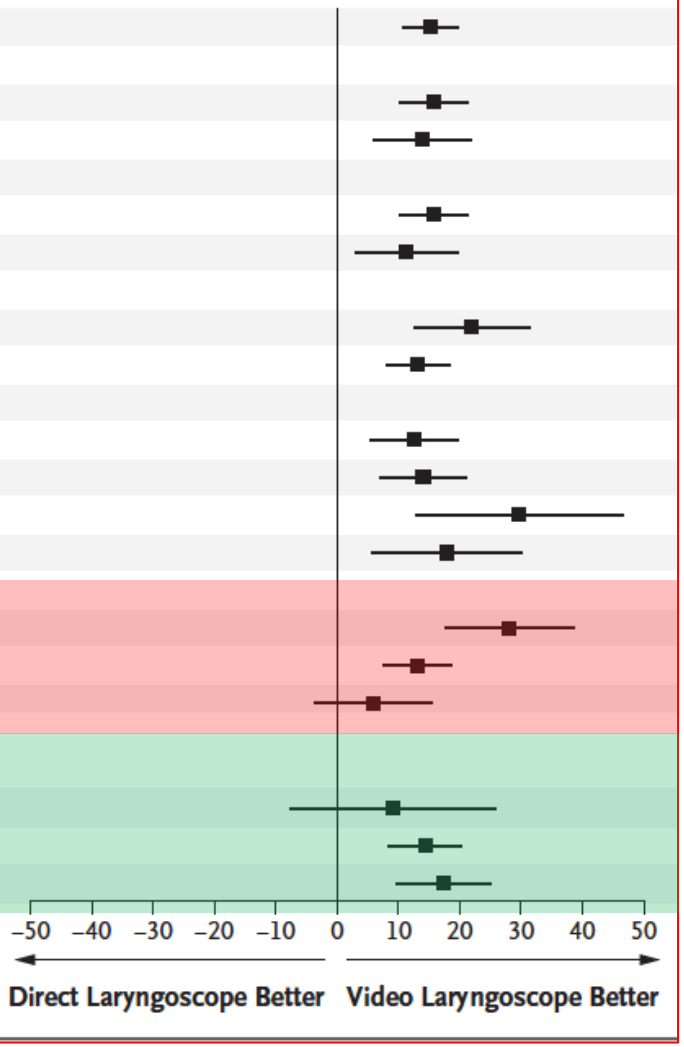
M.E. Prekker, B.E. Driver, S.A. Trent, D. Resnick-Ault, K.P. Seitz, D.W. Russell, J.P. Gaillard, A.J. Latimer, S.A. Ghamande, K.W. Gibbs, D.J. Vonderhaar, M.R. Whitson, C.R. Barnes, J.P. Walco, I.S. Douglas, V. Krishnamoorthy, A. Dagan, J.J. Bastman, B.D. Lloyd, S. Gandotra, J.K. Goranson, S.H. Mitchell, H.D. White, J.A. Palakshappa, A. Espinera, D.B. Page, A. Joffe, S.J. Hansen, C.G. Hughes, T. George, J.T. Herbert, N.I. Shapiro, S.G. Schauer, B.J. Long, B. Imhoff, L. Wang, J.P. Rhoads, K.N. Womack, D.R. Janz, W.H. Self, T.W. Rice, A.A. Ginde, J.D. Casey, and M.W. Semler, for the DEVICE Investigators and the Pragmatic Critical Care Research Group*

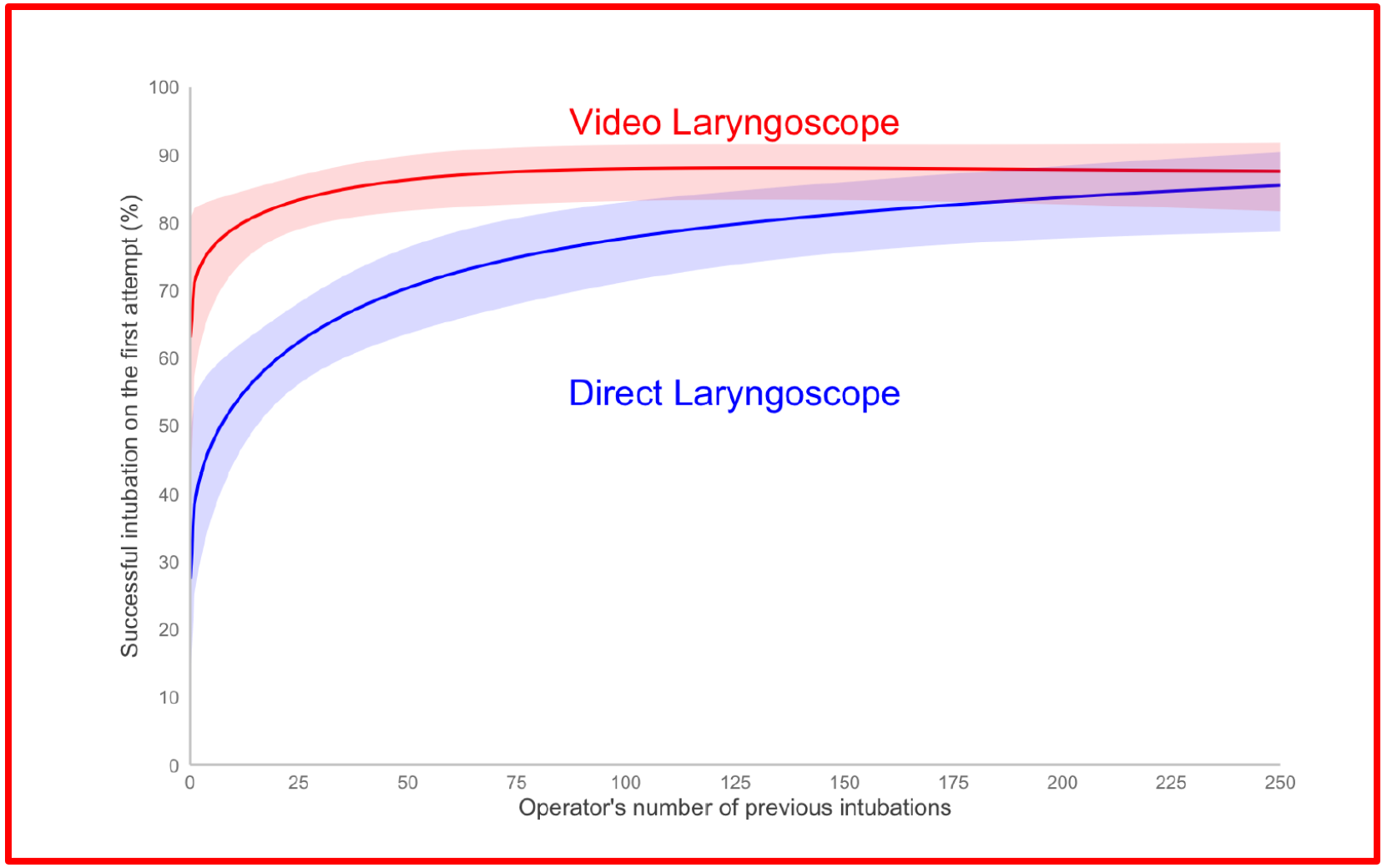


- Essai randomisé
- Multicentrique
- 17 SAU et Réa
- Patients adultes

Analyse en sous groupes

Subgroup	Video Laryngoscope *no. of events/total no. (%)*	Direct Laryngoscope *no. of events/total no. (%)*
Overall	600/705 (85.1)	504/712 (70.8)
Location in hospital		
Emergency department	425/495 (85.9)	352/493 (71.4)
Intensive care unit	175/210 (83.3)	152/219 (69.4)
Body-mass index		
<30	402/468 (85.9)	343/483 (71.0)
≥30	179/217 (82.5)	155/216 (71.8)
Traumatic injury		
Yes	151/171 (88.3)	114/167 (68.3)
No	449/534 (84.1)	390/545 (71.6)
Anticipated difficulty of intubation		
Easy	206/232 (88.8)	172/223 (77.1)
Moderate	266/317 (83.9)	235/331 (71.0)
Difficult	51/67 (76.1)	30/62 (48.4)
Not reported	77/89 (86.5)	67/96 (69.8)
No. of operator's previous intubations		
<25	128/160 (80.0)	83/154 (53.9)
25–100	379/441 (85.9)	330/448 (73.7)
>100	93/104 (89.4)	91/109 (83.5)
Proportion of previous intubations performed with a video laryngoscope		
<0.25	39/44 (88.6)	27/34 (79.4)
0.25–0.75	335/398 (84.2)	303/429 (70.6)
>0.75	226/262 (86.3)	174/248 (70.2)



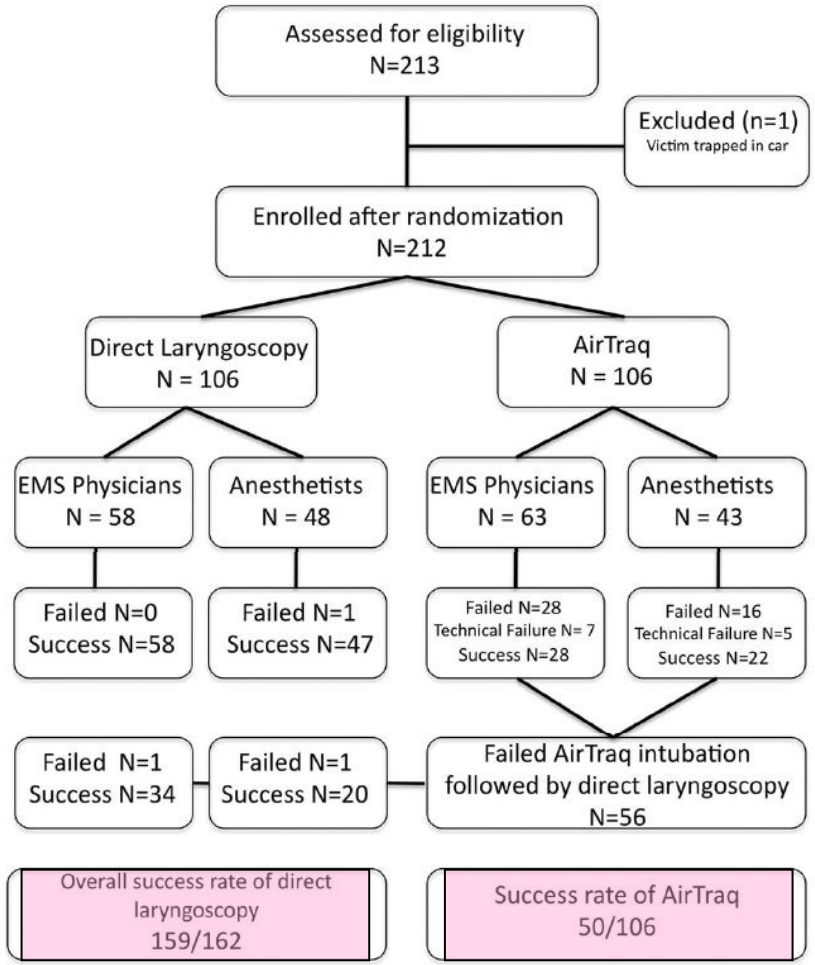

Video Laryngoscope
Direct Laryngoscope
Successful intubation on the first attempt (%)
Operator's number of previous intubations
0
10
20
30
40
50
60
70
80
90
100
0
25
50
75
100
125
150
175
200
225
250

Et le pré hospitalier ?

Use of the Airtraq laryngoscope for emergency intubation in the prehospital setting: A randomized control trial

Helmut Trimmel, MD; Janett Kreutziger, MD; Georg Fertsak, MD; Robert Fitzka, MD; Markus Dittrich, MD; Wolfgang G. Voelckel, MD

Crit Care Med 2011

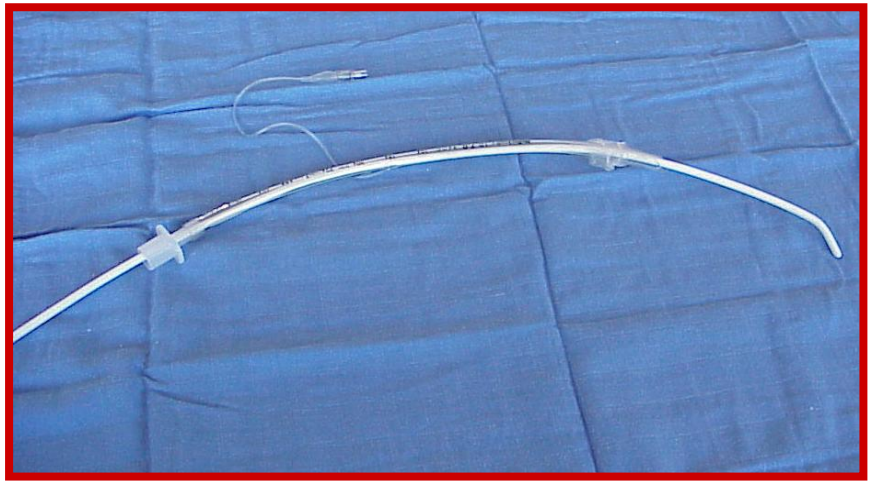


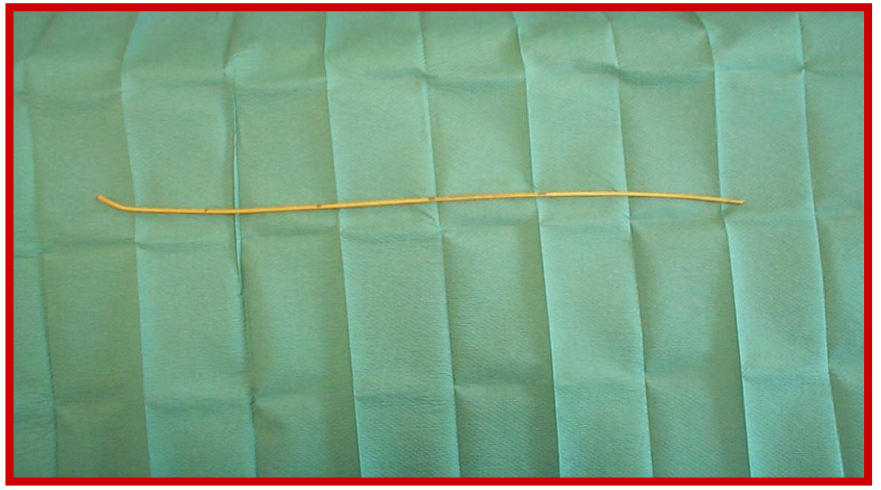
Causes des échecs

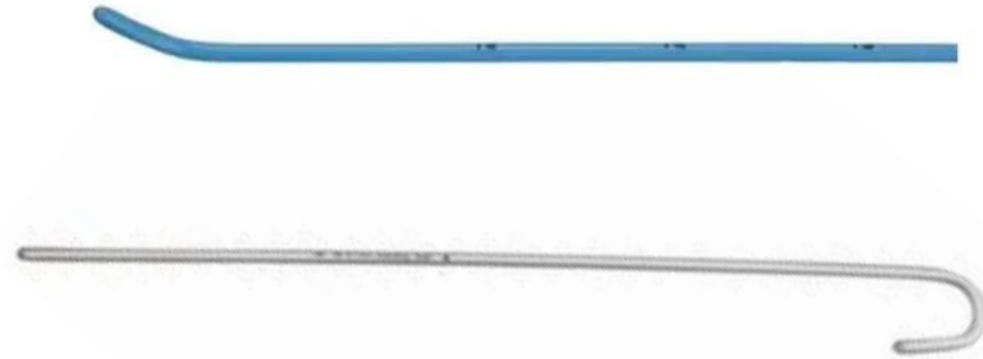
Table 3. Reasons for failed intubation while employing the Airtraq

Reasons for failed endotracheal intubation while employing the Airtraq	n = 56
Cuff damage noticed after successful endotracheal tube placement	10
Light source defect (continuous flashing)	2
Impaired sight and visibility due to vomitus, blood, or food bolus	9
Impaired mouth opening—Airtraq difficult to insert	5
Poor visibility due to environmental exposure (snow field, ambient light)	5
Esophageal intubation despite optimal view	3
Airtraq handling mistakes	3
Laryngospasm and hiccup	1
Airtraq and subsequent direct laryngosocopy failed	3
Missing information	15

Un mandrin pour tout le monde ?







Research

JAMA | Original Investigation

Effect of Use of a Bougie vs Endotracheal Tube and Stylet on First-Attempt Intubation Success Among Patients With Difficult Airways Undergoing Emergency Intubation

A Randomized Clinical Trial

Brian E. Driver, MD; Matthew E. Prekker, MD; Lauren R. Klein, MD; Robert F. Reardon, MD; James R. Miner, MD; Erik T. Fagerstrom, BA; Mitchell R. Cleghorn, BS; John W. McGill, MD; Jon B. Cole, MD

AIRWAY/ORIGINAL RESEARCH

The Bougie and First-Pass Success in the Emergency Department

Brian Driver, MD*; Kenneth Dodd, MD; Lauren R. Klein, MD; Ryan Buckley, MD; Aaron Robinson, MD; John W. McGill, MD; Robert F. Reardon, MD; Matthew E. Prekker, MD

*Corresponding Author. E-mail: briandriver@gmail.com, Twitter: @brian_driver.

Study objective: The bougie may improve first-pass intubation success in operating room patients. We seek to determine whether bougie use is associated with emergency department (ED) first-pass intubation success.

Methods: We studied consecutive adult ED intubations at an urban, academic medical center during 2013. Intubation events were identified by motion-activated video recording. We determined the association between bougie use and first-pass intubation success, adjusting for neuromuscular blockade, video laryngoscopy, abnormal airway anatomy, and whether the patient was placed in the sniffing position or the head was lifted off the bed during intubation.

Results: Intubation with a Macintosh blade was attempted in 543 cases; a bougie was used on the majority of initial attempts (80%; n=435). First-pass success was greater with than without bougie use (95% versus 86%; absolute difference 9% [95% confidence interval (CI) 2% to 16%]). The median first-attempt duration was higher with than without bougie (40 versus 27 seconds; difference 14 seconds [95% CI 11 to 16 seconds]). Bougie use was independently associated with greater first-pass success (adjusted odds ratio 2.83 [95% CI 1.35 to 5.92]).

Conclusion: Bougie was associated with increased first-pass intubation success. Bougie use may be helpful in ED intubation. [Ann Emerg Med. 2017;70:473-478.]

Please see page 474 for the Editor's Capsule Summary of this article.

AIRWAY/SYSTEMATIC REVIEW/META-ANALYSIS

Effect of Bougie Use on First-Attempt Success in Tracheal Intubations: A Systematic Review and Meta-Analysis

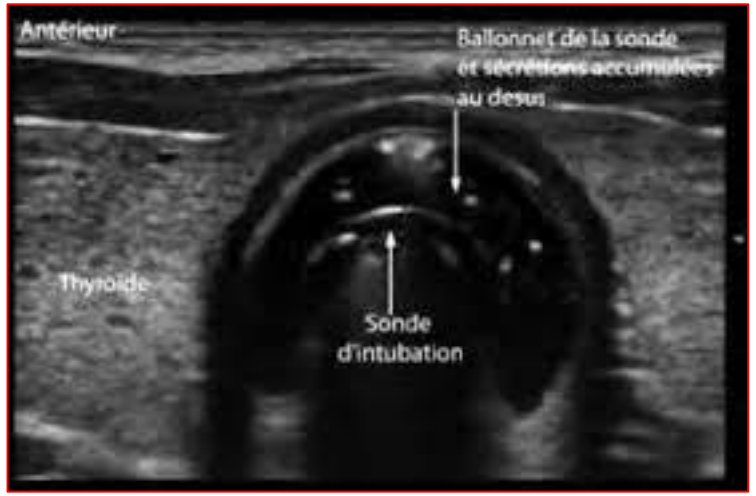
Rafael von Hellmann, MD; Natalia Fuhr, MD; Ian Ward A. Maia, MD; Danielle Gerberi, MLIS; Daniel Pedrollo, MD, MS; Fernanda Bellolio, MD, MS; Lucas Oliveira J. e Silva, MD, MS*

*Corresponding Author. E-mail: lojesilva@gmail.com or lojsilva@hcpa.edu.br.

The use of a bougie, a flexible endotracheal tube introducer, has been proposed to optimize first-attempt success in emergency department intubations. We aimed to evaluate the available evidence on the association of bougie use in the first attempt and success in tracheal intubations. This was a systematic review and meta-analysis of studies that evaluated first-attempt success between adults intubated with a bougie versus without a bougie (usually with a stylet) in all settings. Manikin and cadaver studies were excluded. A medical librarian searched Ovid Cochrane Central, Ovid Embase, Ovid Medline, Scopus, and Web of Science for randomized controlled trials and comparative observational studies from inception to June 2023. Study selection and data extraction were done in duplicate by 2 independent reviewers. We conducted a meta-analysis with random-effects models, and we used GRADE to assess the certainty of evidence at the outcome level. We screened a total of 2,699 studies, and 133 were selected for full-text review. A total of 18 studies, including 12 randomized controlled trials, underwent quantitative analysis. In the meta-analysis of 18 studies (9,151 patients), bougie use was associated with increased first-attempt intubation success (pooled risk ratio [RR] 1.11, 95% confidence interval [CI] 1.06 to 1.17, low certainty evidence). Bougie use was associated with increased first-attempt success across all analyzed subgroups with similar effect estimates, including in emergency intubations (9 studies; 8,070 patients; RR 1.11, 95% CI 1.05 to 1.16, low certainty). The highest point estimate favoring the use of a bougie was in the subgroup of patients with Cormack-Lehane III or IV (5 studies, 585 patients, RR 1.60, 95% CI 1.40 to 1.84, moderate certainty). In this meta-analysis, the bougie as an aid in the first intubation attempt was associated with increased success. Despite the certainty of evidence being low, these data suggest that a bougie should probably be used first and not as a rescue device in emergency intubations. [Ann Emerg Med. 2023;■:1-13.]

Please see page XX for the Editor's Capsule Summary of this article.

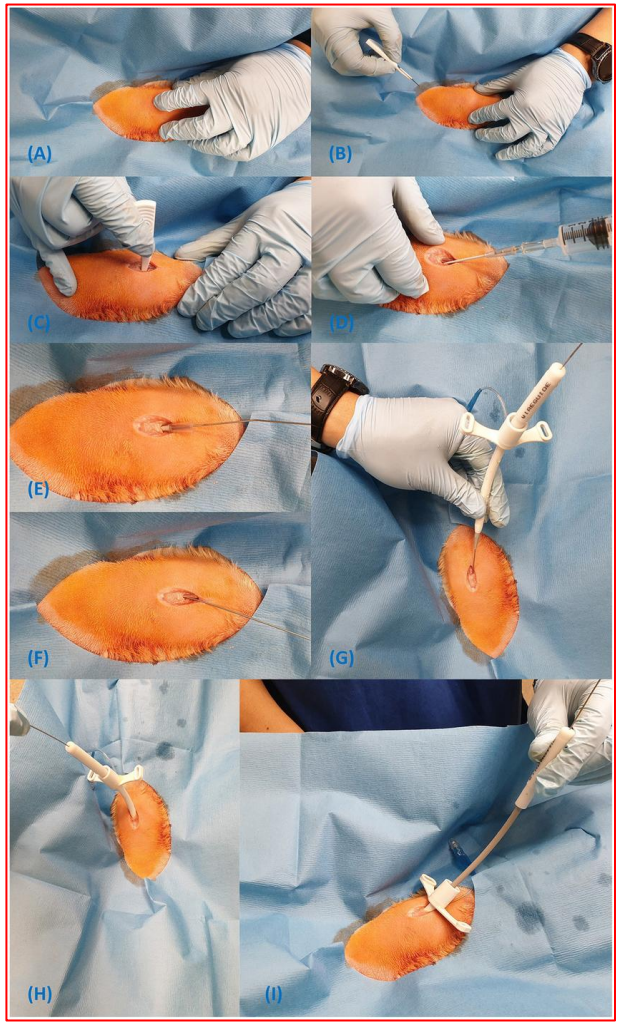
Contrôle du positionnement de la sonde d'intubation

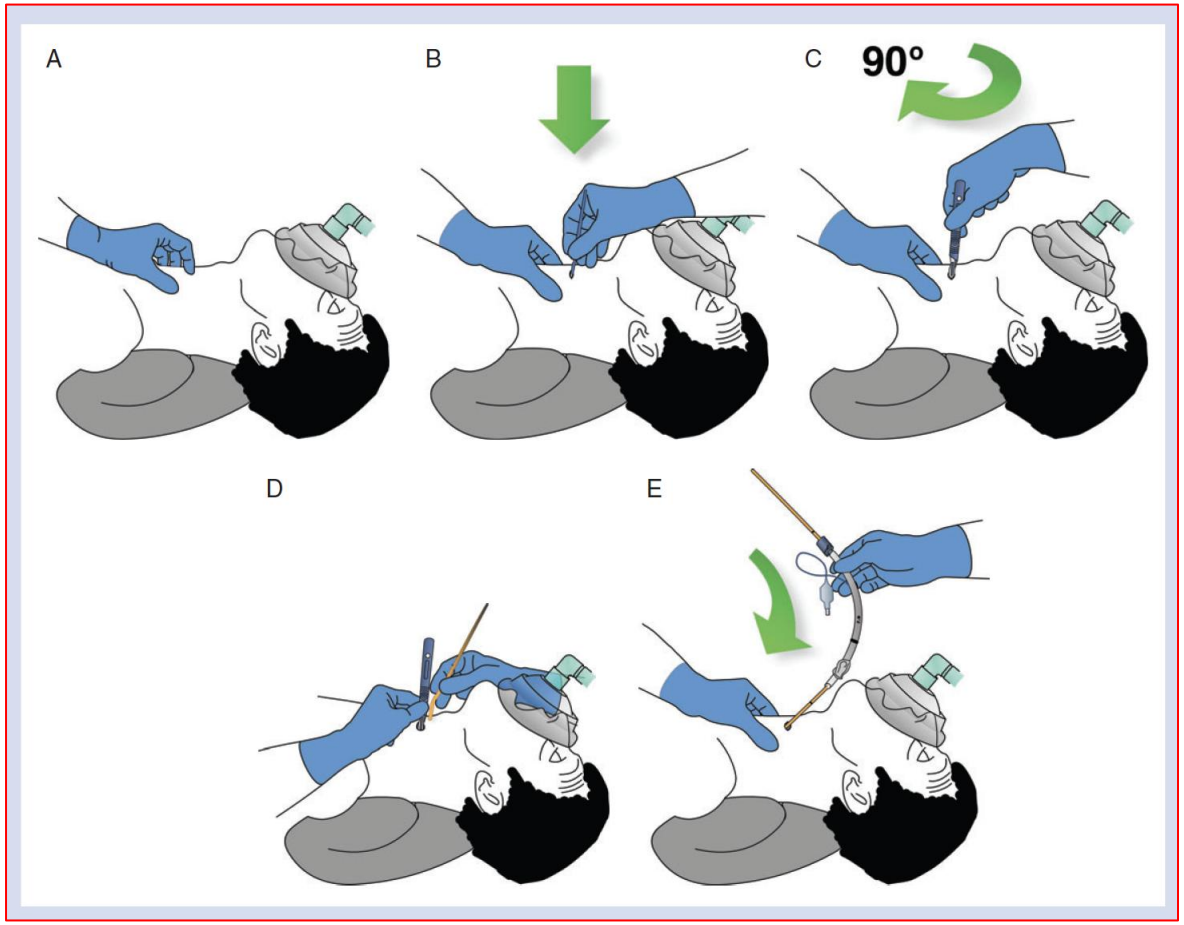


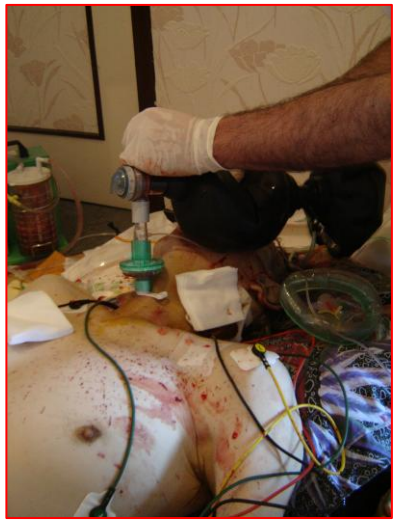
Cricothyroïdotomie

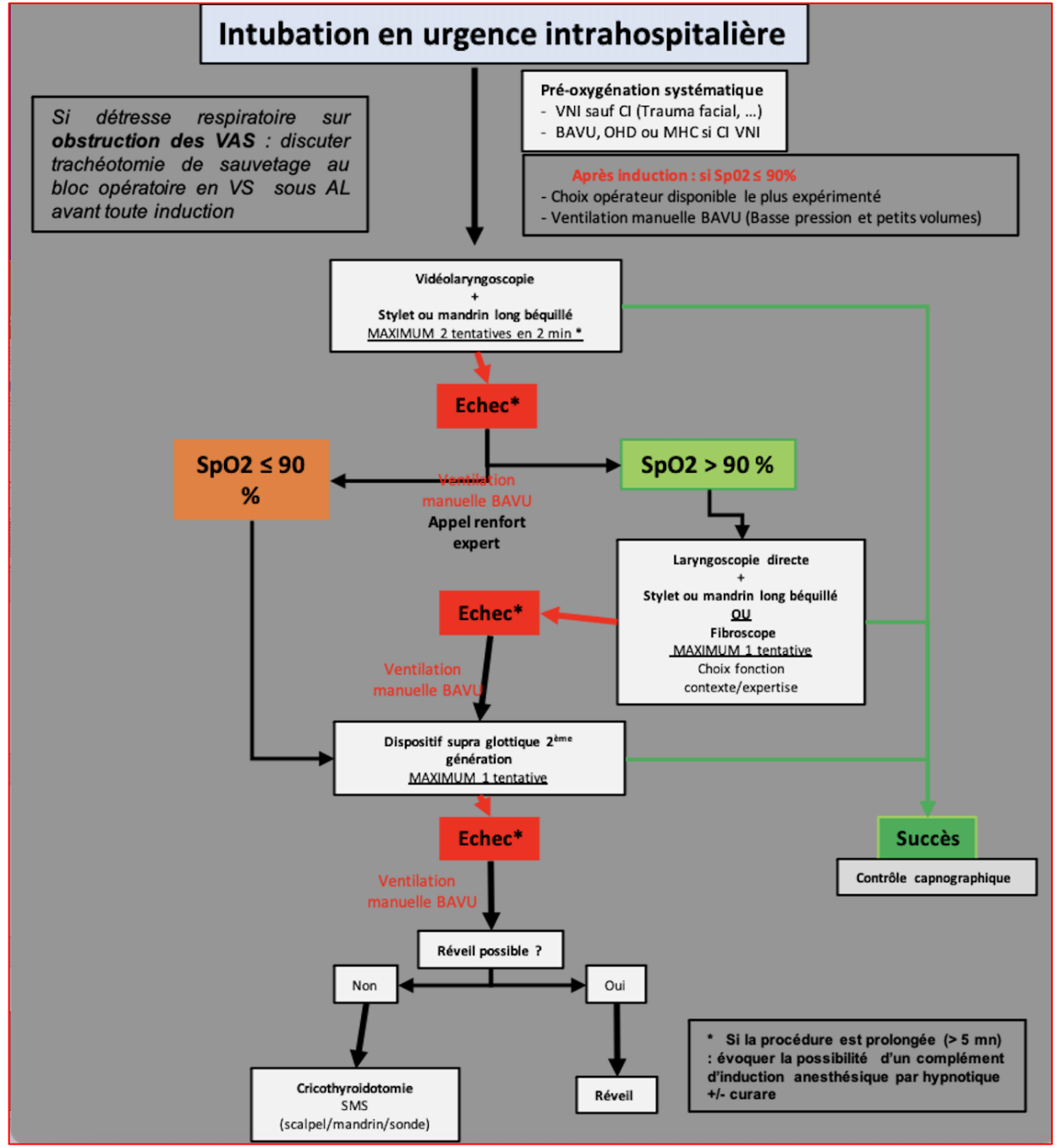
- Très rare
- Très facile ?
- Quelle technique ?

Seldinger ou SMS ?








Intubation en urgence intrahospitalière
Si détresse respiratoire sur obstruction des VAS : discuter trachéotomie de sauvetage au bloc opératoire en VS sous AL avant toute induction
Pré-oxygénation systématique
- VNI sauf CI (Trauma facial, ...)
- BAVU, OHD ou MHC si CI VNI
Après induction : si Sp02 ≤ 90%
- Choix opérateur disponible le plus expérimenté
- Ventilation manuelle BAVU (Basse pression et petits volumes)
Vidéolaryngoscopie
+
Stylet ou mandrin long béquillé
MAXIMUM 2 tentatives en 2 min *
Echec*
SpO2 ≤ 90 %
Ventilation manuelle BAVU
Appel renfort expert
SpO2 > 90 %
Laryngoscopie directe
+
Stylet ou mandrin long béquillé
OU
Fibroscope
MAXIMUM 1 tentative
Choix fonction contexte/expertise
Echec*
Ventilation manuelle BAVU
Dispositif supra glottique 2ème génération
MAXIMUM 1 tentative
Echec*
Ventilation manuelle BAVU
Succès
Contrôle capnographique
Réveil possible ?
Non
Oui
Cricothyroidotomie
SMS
(scalpel/mandrin/sonde)
Réveil
* Si la procédure est prolongée (> 5 mn) : évoquer la possibilité d'un complément d'induction anesthésique par hypnotique +/- curare