

SESSION ANESTHESIE



Journées d'Anesthésie Réanimation
Chirurgicale d'Aquitaine

JARCA 2017, LEMEUX Joffrey



SOMMAIRE

1) Sujets âgés et cognition

2) Opiïdes

3) Hémodynamique



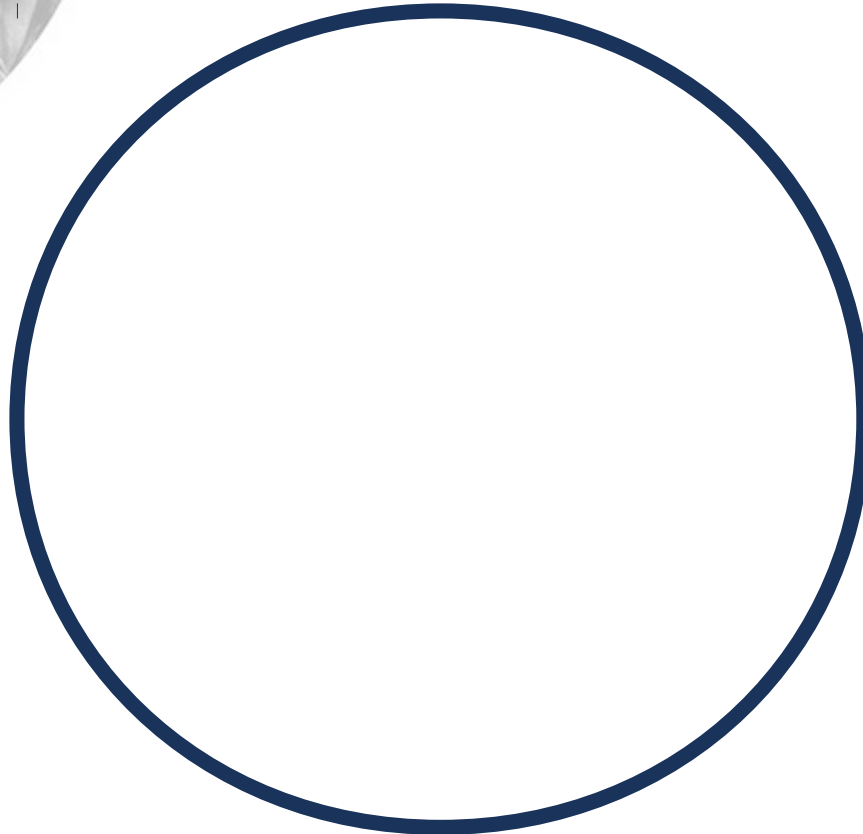
Retenez ces 3 mots :

Clé

Ballon

Citron

Dessinez « 10h10 » sur l'horloge
ci-dessous :





Rappelez les 3 mots retenus :

- _____
- _____
- _____

SUJETS AGÉS ET COGNITION



**RECOMMANDATION SUR L'ANESTHESIE DU SUJET AGE :
L'EXEMPLE DE FRACTURE DE L'EXTREMITÉ SUPÉRIEURE DU
FEMUR**

Poor Performance on a Preoperative Cognitive Screening Test Predicts Postoperative Complications in Older Orthopedic Surgical Patients

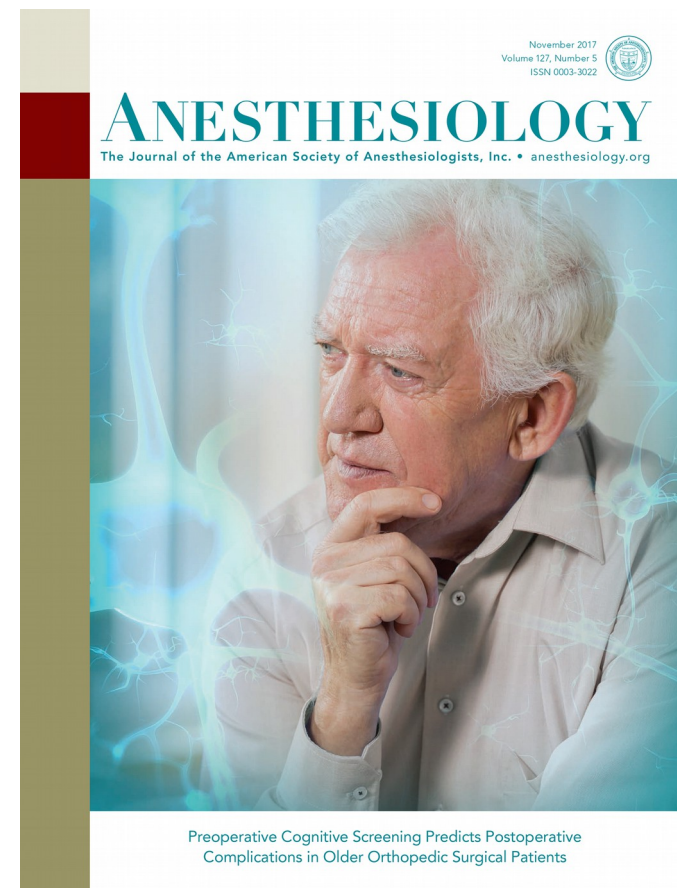
Deborah J. Culley, M.D., Devon Flaherty, M.D., M.P.H., Margaret C. Fahey, M.A., James L. Rudolph, M.D.,
Houman Javedan, M.D., Chuan-Chin Huang, Ph.D., John Wright, M.D., Angela M. Bader, M.D., M.P.H.,
Bradley T. Hyman, M.D., Ph.D., Deborah Blacker, M.D., Sc.D., Gregory Crosby, M.D.

- 
- **25 a 33 % de MCI chez les $\geq$ 65 ans**
 - **Test Mini-Cog**
 - **211 patients**
 - **Chirurgie orthopédique**
 - **Absence de retour a domicile post-opératoire**

Poor Performance on a Preoperative Cognitive Screening Test Predicts Postoperative Complications in Older Orthopedic Surgical Patients

Deborah J. Culley, M.D., Devon Flaherty, M.D., M.P.H., Margaret C. Fahey, M.A., James L. Rudolph, M.D., Houman Javedan, M.D., Chuan-Chin Huang, Ph.D., John Wright, M.D., Angela M. Bader, M.D., M.P.H., Bradley T. Hyman, M.D., Ph.D., Deborah Blacker, M.D., Sc.D., Gregory Crosby, M.D.

(ANESTHESIOLOGY 2017; 127:765-74)



MINI-COG

- **3 items : memorisation, dessin, rappel**
- **Cut-Off $\leq 2/5$ en faveur d'un deficit cognitif modéré**
- **Se 0,91 Sp 0,86 reproductible et validé**
- **Durée de quelques minutes**

Word Recall: _____ (0-3 points)	1 point for each word spontaneously recalled without cueing.
Clock Draw: _____ (0 or 2 points)	Normal clock = 2 points. A normal clock has all numbers placed in the correct sequence and approximately correct position (e.g., 12, 3, 6 and 9 are in anchor positions) with no missing or duplicate numbers. Hands are pointing to the 11 and 2 (11:10). Hand length is not scored. Inability or refusal to draw a clock (abnormal) = 0 points.
Total Score: _____ (0-5 points)	Total score = Word Recall score + Clock Draw score. A cut point of <3 on the Mini-Cog™ has been validated for dementia screening, but many individuals with clinically meaningful cognitive impairment will score higher. When greater sensitivity is desired, a cut point of <4 is recommended as it may indicate a need for further evaluation of cognitive status.

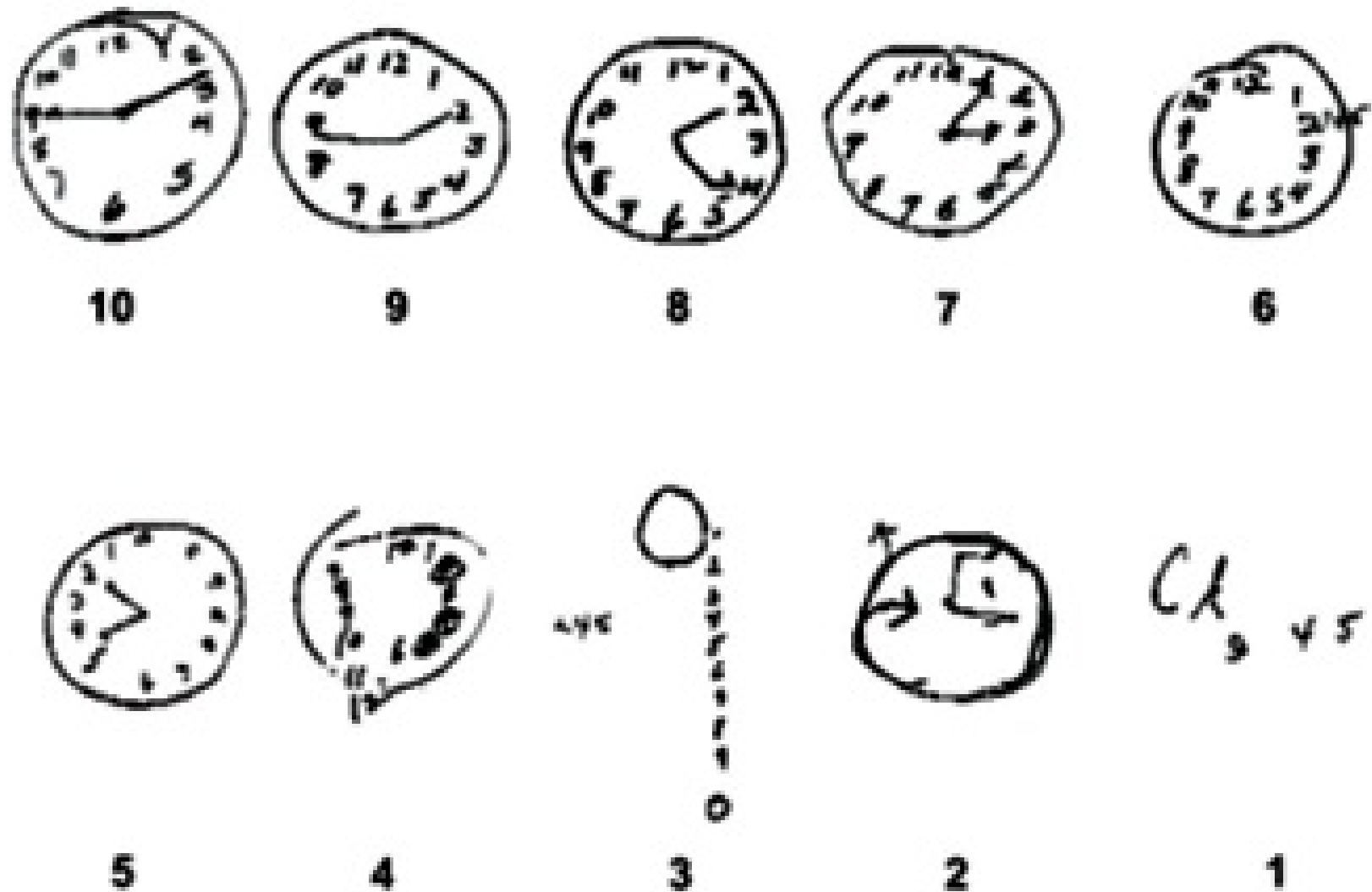


FIGURE. Assessment of cognitive functioning using the Clock Drawing Test^{8,9}

Faison WE. *CNS Spectr.* Vol 10, No 11 (Suppl 18). 2005.

RESULTATS

- Moins de retour a domicile
- Plus longue durée de sejour
- Plus de delirium
- Plus d'événements cardiaques

**PLUS DE
MORBI-
MORTALITÉ**

A. Discharge to Place Other than Home

Reference Variable	Contrast Variable	Age-adjusted Univariate Model		Multivariate (GOF test $P = 0.37$)*	
		Odds Ratio (95% CI)	P Value	Odds Ratio (95% CI)	P Value
Mini-Cog score (≥ 3)	≤ 2	2.97 (1.43 to 6.18)	0.004	3.88 (1.58 to 9.55)	0.003
Gender (male)	Female	4.32 (2.23 to 8.38)	< 0.001	3.52 (1.58 to 7.84)	0.002

B. Hospital Length of Stay

Reference Variable	Contrast Variable	Age-adjusted Univariate Model		Multivariate (PH assumption $P = 0.09$) **	
		Hazard Ratio (95% CI)	P Value	Hazard Ratio (95% CI)	P Value
Mini-Cog score (≥ 3)	≤ 2	0.65 (0.45 to 0.93)	0.018	0.63 (0.42 to 0.95)	0.026



MESSAGE

- **MCI asymptomatique donc a dépister**
- **Présence d'un MCI significativement associée a une sur-morbimortalité**
- **Mini-Cog = outil simple et rapide de depistage des MCI, permettant une stratification du risque**

R1.3 – Les experts proposent d'évaluer le risque de confusion ou de troubles cognitifs postopératoires de repérer en préopératoire une plainte cognitive, des troubles de l'humeur et/ou une maladie neurodégénérative.

Avis d'experts

R2.1 – Il faut une prise en charge multidisciplinaire spécialisée périopératoire associant urgentistes, anesthésistes réanimateurs, chirurgiens, gériatres, pharmaciens et soignants afin d'améliorer le devenir post-opératoire des patients âgés opérés en chirurgie orthopédique.

Grade 1+ (Accord FORT)

R2.2 – Les experts proposent de privilégier la chirurgie ambulatoire chez le patient âgé quel que soit son âge.

Avis d'experts

R3.1 – Il faut identifier les médicaments à risque de confusion postopératoire (benzodiazépines à demi-vie longue, les antidépresseurs tricycliques et IMAO B, les antihistaminiques, les neuroleptiques, les morphiniques), et il faut alléger les traitements anticholinergiques et sédatifs.

Grade 1+ (Accord FORT)

R3.2 – Il faut probablement utiliser une échelle objective (comme (l'Amsterdam Preoperative Anxiety and Information Scale (APAIS) ou l'Hospital Anxiety and Depression Scale) et validée afin de mesurer l'anxiété préopératoire.

Grade 2+ (Accord FORT)

R7.1 – Il faut probablement mettre en place un programme de prévention non médicamenteuse de la confusion postopératoire, favorisant ré-afférentation sensorielle, orientation temporo-spatiale, rythme veille-sommeil, et contrôlant hydratation, douleur et iatrogénie.

Grade 1+ (Accord FORT)

**RECOMMANDATION SUR L'ANESTHESIE DU SUJET AGE :
L'EXEMPLE DE FRACTURE DE L'EXTREMITÉ SUPÉRIEURE DU
FEMUR**

OPIOÏDES



Pupillometry-guided Intraoperative Remifentanyl Administration *versus* Standard Practice Influences Opioid Use

A Randomized Study

Nada Sabourdin, M.D., Jérôme Barrois, M.D., Nicolas Louvet, M.D., Agnès Rigouzzo, M.D., Marie-Laurence Guye, M.D., Christophe Dadure, M.D., Ph.D., Isabelle Constant, M.D., Ph.D.

(ANESTHESIOLOGY 2017; 127:284-92)

OPIOIDES

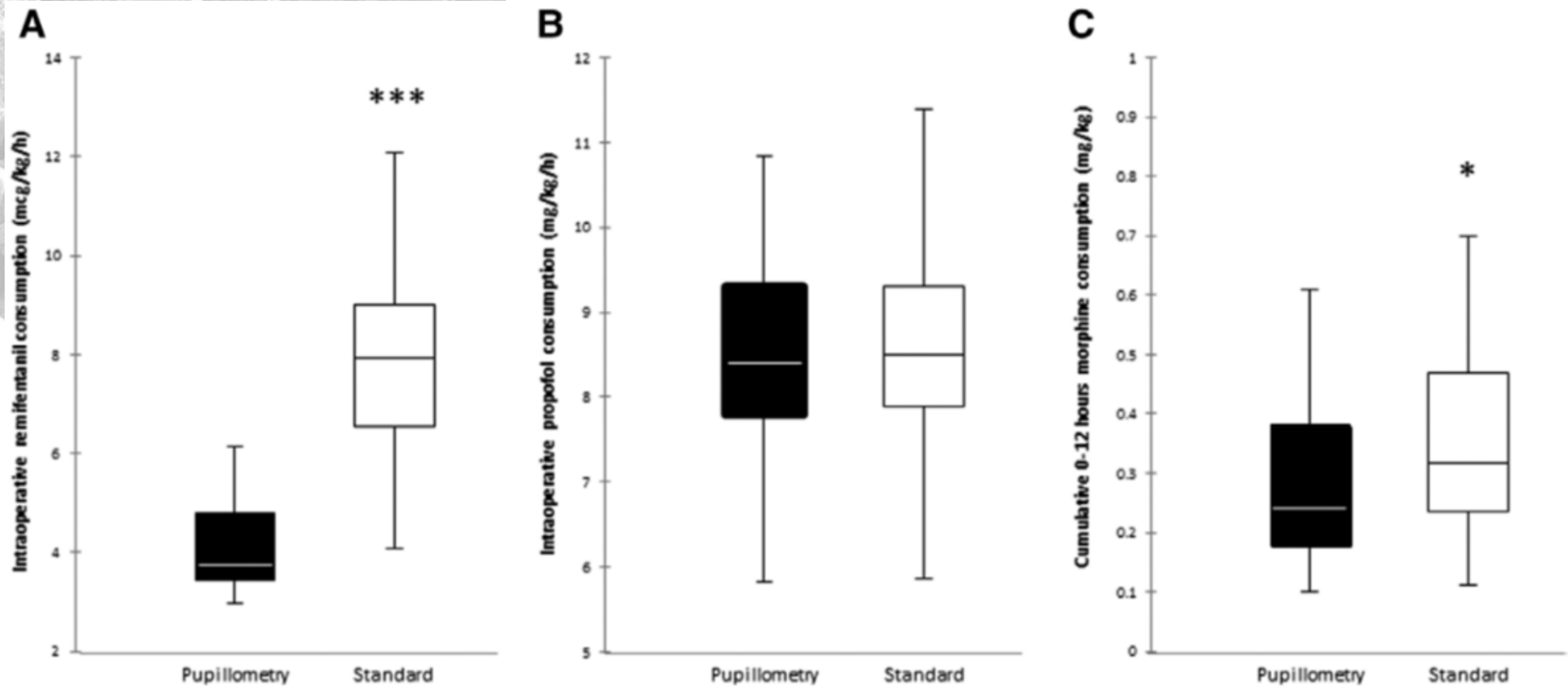
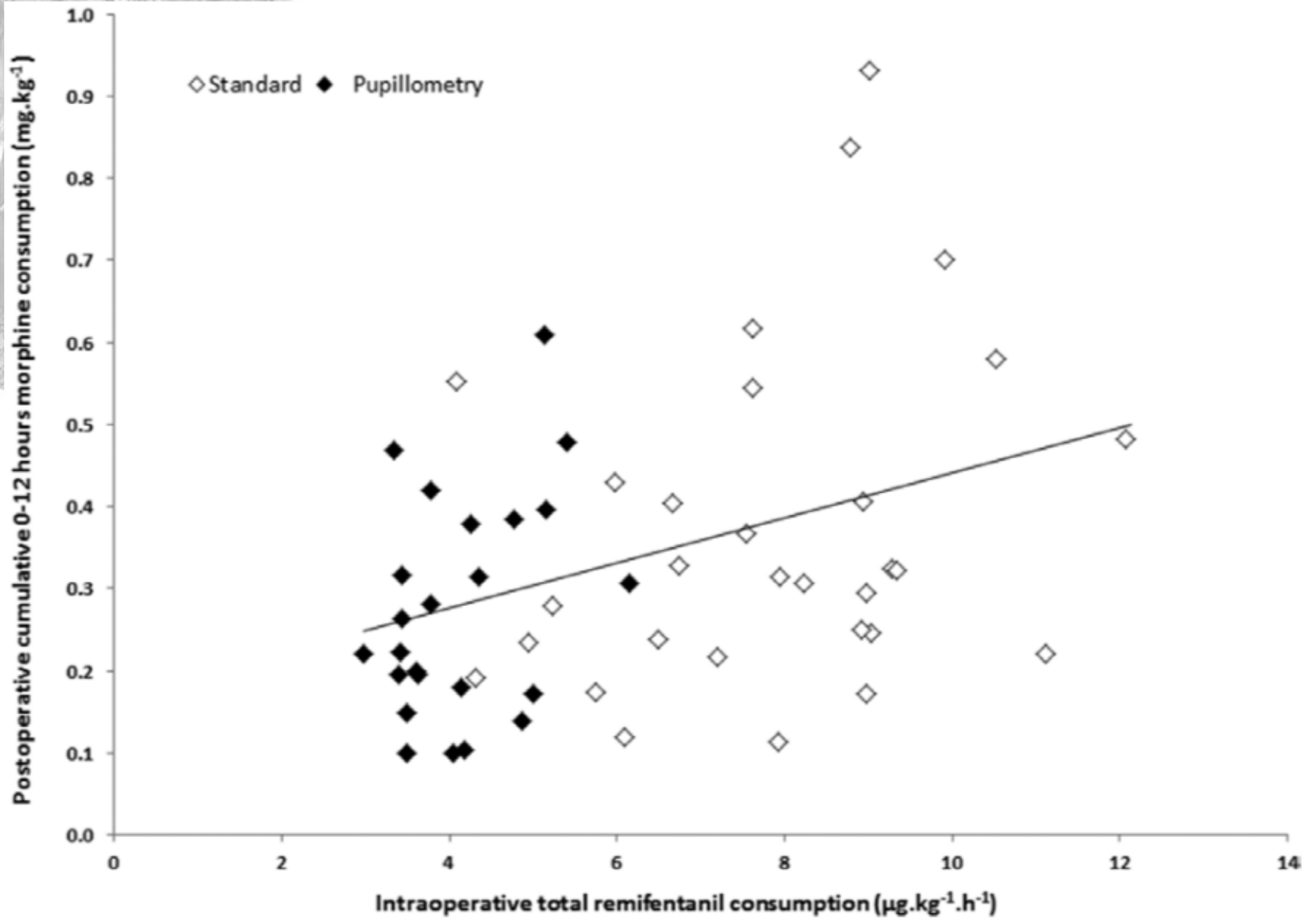


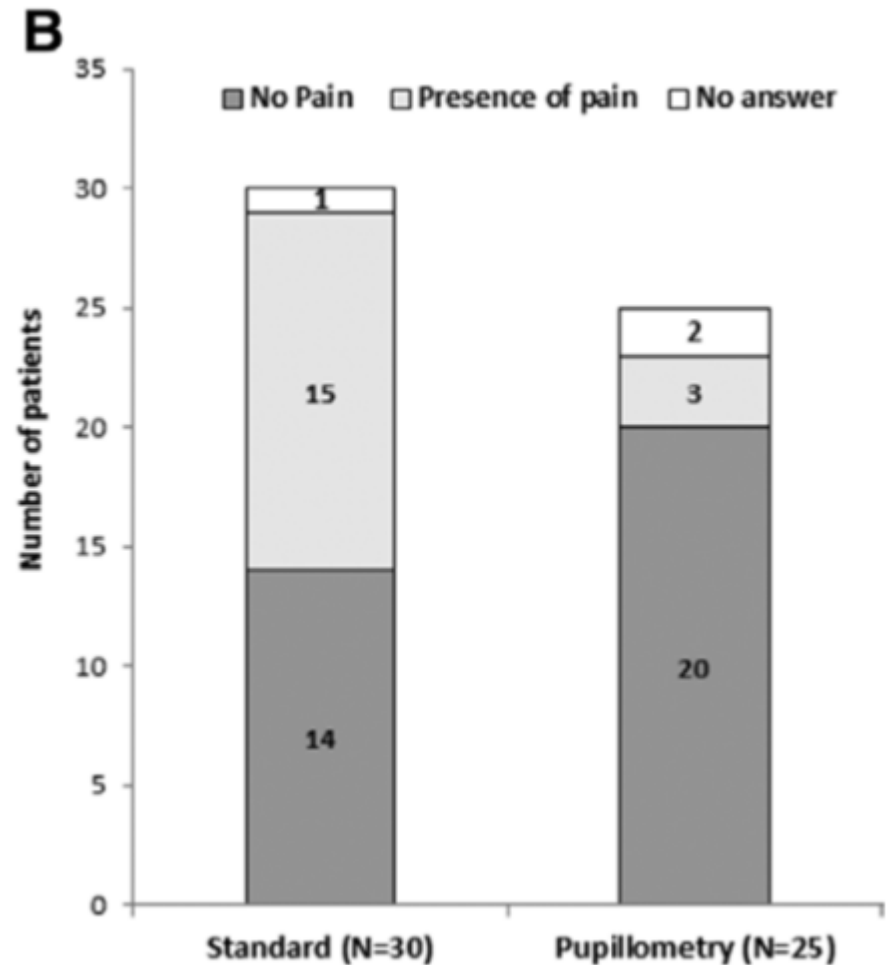
Fig. 2. (A) Intraoperative remifentanyl consumption: median (25th to 75th percentile), range. (B) Intraoperative propofol consumption: median (25th to 75th percentile), range. (C) Postoperative cumulative 0- to 12-h morphine consumption: median (25th to 75th percentile), range. * $P < 0.05$. *** $P < 0.001$.

OPIOÏDES

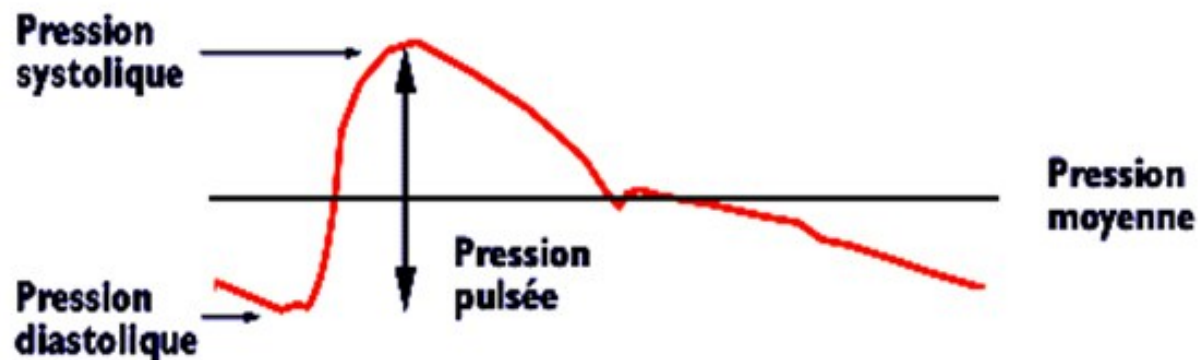


OPIOÏDES

- Diminution de 50 % du remifentanil
- Diminution de la morphine
- Diminution des douleurs chroniques
- Sans changements hemodynamiques
- Sans surconsommation d'hypnotiques
- Algiscan : variation (et pas 2 valeur)



HEMODYNAMIQUE



JAMA | **Original Investigation** | CARING FOR THE CRITICALLY ILL PATIENT

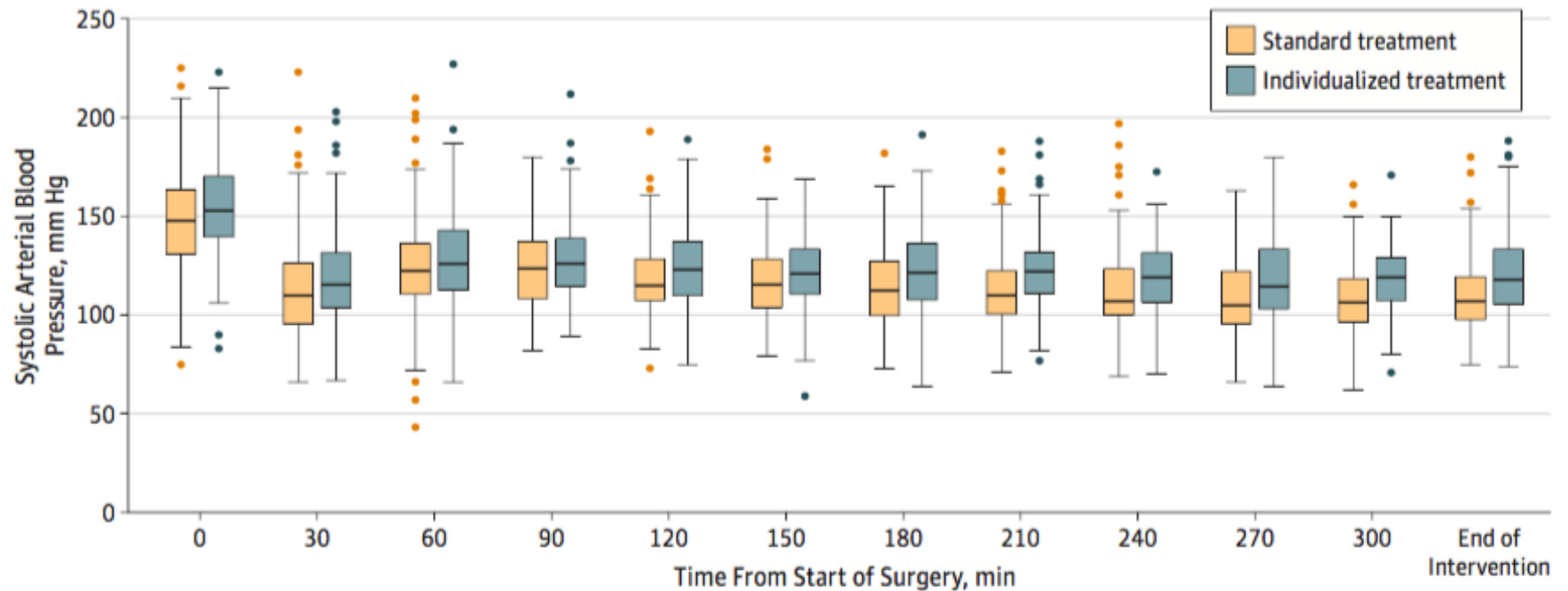
Effect of Individualized vs Standard Blood Pressure Management Strategies on Postoperative Organ Dysfunction Among High-Risk Patients Undergoing Major Surgery A Randomized Clinical Trial

Emmanuel Futier, MD, PhD; Jean-Yves Lefrant, MD, PhD; Pierre-Gregoire Guinot, MD, PhD; Thomas Godet, MD, PhD; Emmanuel Lorne, MD; Philippe Cuvillon, MD, PhD; Sebastien Bertran, MD; Marc Leone, MD, PhD; Bruno Pastene, MD; Vincent Piriou, MD, PhD; Serge Molliex, MD, PhD; Jacques Albanese, MD, PhD; Jean-Michel Julia, MD; Benoit Tavernier, MD, PhD; Etienne Imhoff, MD; Jean-Etienne Bazin, MD, PhD; Jean-Michel Constantin, MD, PhD; Bruno Pereira, PhD; Samir Jaber, MD, PhD; for the INPRESS Study Group

JAMA. doi:[10.1001/jama.2017.14172](https://doi.org/10.1001/jama.2017.14172)
Published online September 27, 2017.

HEMODYNAMIQUE

Figure 2. Systolic Arterial Blood Pressure in the Individualized and Standard Treatment Groups Over the Intervention Period



No. of patients												
Standard treatment	145	143	144	144	140	136	128	119	113	96	86	145
Individualized treatment	147	144	145	145	140	133	122	113	99	82	72	147

HEMODYNAMIQUE

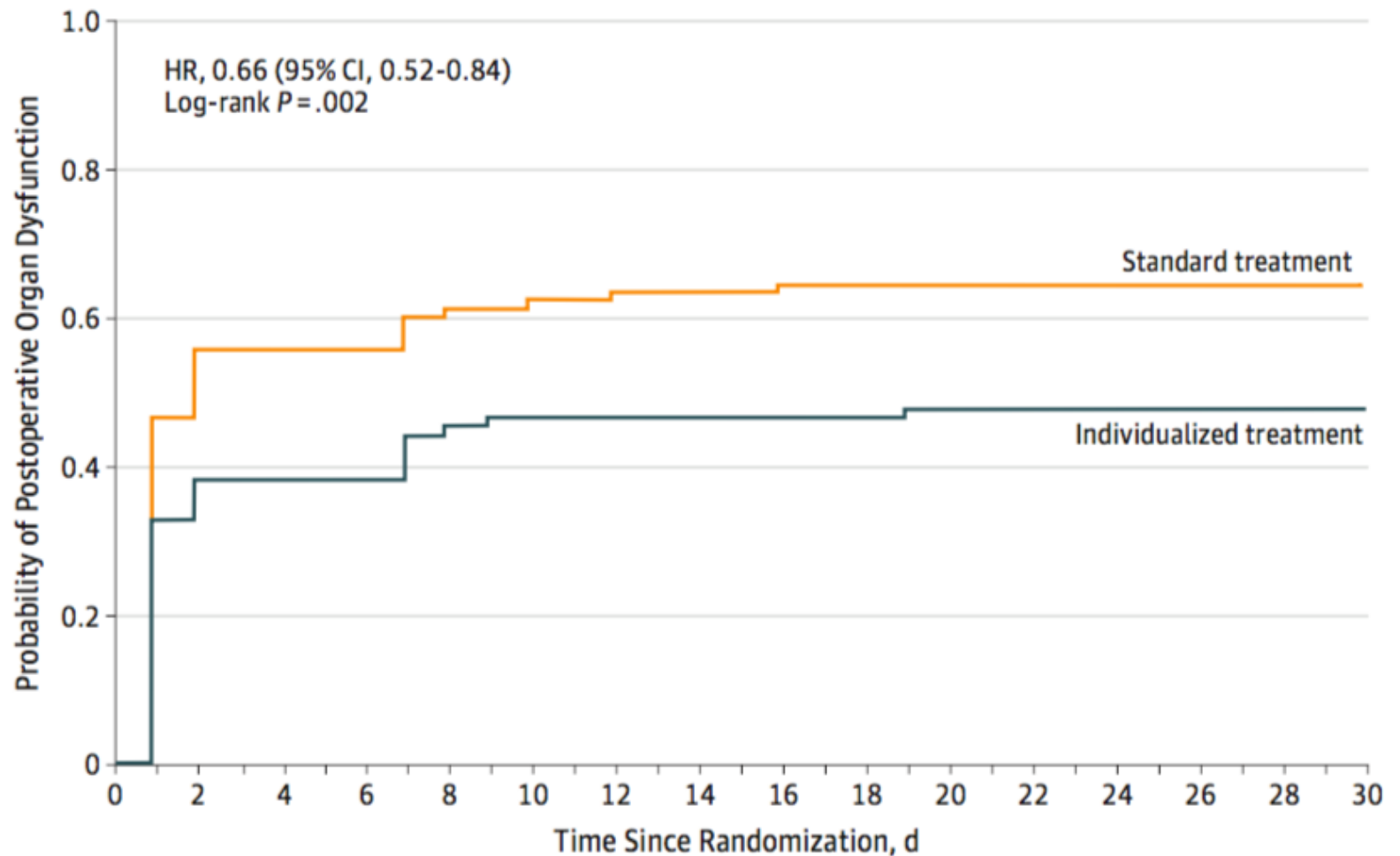
Table 3. Primary and Secondary Outcomes and Adverse Events

Variable	Individualized Treatment (n = 147)	Standard Treatment (n = 145)	Between-Group Absolute Difference, % (95% CI)	Unadjusted Relative Risk (95% CI)	P Value	Adjusted Relative Risk (95% CI) ^a	P Value
Primary Outcome							
Primary composite outcome, No. (%) ^b	56 (38.1)	75 (51.7)	-14 (-25 to -2)	0.74 (0.57 to 0.95)	.02	0.73 (0.56 to 0.94)	.02
Secondary Outcomes							
Acute kidney injury according to RIFLE criteria, No. (%) ^d							
Risk	23 (15.7)	36 (24.8)	-9 (-18 to 0)	0.63 (0.39 to 1.00)	.05	0.73 (0.47 to 1.14)	.17
Injury	16 (10.9)	26 (17.9)	-7 (-15 to 1)	0.61 (0.34 to 1.08)	.09	0.61 (0.34 to 1.08)	.09
Failure	9 (6.1)	9 (6.2)	0 (-6 to 5)	0.99 (0.40 to 2.41)	.98	0.97 (0.40 to 2.34)	.95
Use of renal replacement therapy, No. (%)	4 (2.7)	5 (3.5)	0 (-5 to 3)	0.79 (0.22 to 2.88)	.72	0.81 (0.22 to 2.97)	.76
Altered consciousness, No. (%) ^e	8 (5.4)	23 (15.9)	-10 (-17 to -3)	0.34 (0.16 to 0.74)	.007	0.34 (0.16 to 0.75)	.007
Pneumonia, No. (%)	6 (4.1)	16 (11.0)	-7 (-13 to -1)	0.37 (0.15 to 0.92)	.03	0.38 (0.15 to 0.93)	.03
Sepsis, No. (%)	22 (15.0)	38 (26.2)	-11 (-20 to -2)	0.57 (0.36 to 0.92)	.02	0.54 (0.34 to 0.86)	.009
Surgical site infection	23 (15.7)	36 (24.8)	-9 (-18 to 0)	0.63 (0.39 to 1.00)	.05	0.63 (0.40 to 0.98)	.04
Death at day 30, No. (%)	9 (6.1)	8 (5.5)	1 (-4 to 6)	1.11 (0.44 to 2.80)	.83	1.11 (0.44 to 2.81)	.82

Pas de différence sur les autres critères de jugement

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Figure 3. Kaplan-Meier Estimates of the Probability of Postoperative Organ Dysfunction by Day 30 After Surgery



HEMODYNAMIQUE

**Noradrenaline : 10µg/mL soit 2,5mg dans 250mL
de serum physiologique :**

	Rate of administration (ml/h)										
Norepinephrine	Weight (kg)										
µg/kg/min	50	55	60	65	70	75	80	85	90	95	100
0.02	6	6.6	7.2	7.8	8.4	9	9.6	10.2	10.8	11.4	12
0.03	9	9.9	10.8	11.7	12.6	13.5	14.4	15.3	16.2	17.1	18
0.04	12	13.2	14.4	15.6	16.8	18	19.2	20.4	21.6	22.8	24
0.05	15	16.5	18	19.5	21	22.5	24	25.5	27	28.5	30
0.06	18	19.8	21.6	23.4	25.2	27	28.8	30.6	32.4	34.2	36
0.07	21	23.1	25.2	27.3	29.4	31.5	33.6	35.7	37.8	39.9	42
0.08	24	26.4	28.8	31.2	33.6	36	38.4	40.8	43.6	45.6	48
0.09	27	29.7	32.4	35.1	37.8	40.5	43.2	45.9	48.6	51.3	54
0.10	31	33	36	39	42	45	48	51	54	57	60

TAKE HOME MESSAGE



**Ère de l'anesthésie personnalisée :
évaluation pré et per-opératoire globale
au centre du rôle de l'anesthésiste**

**Non pas les normes, mais les variations
interpersonnelles à intégrer**