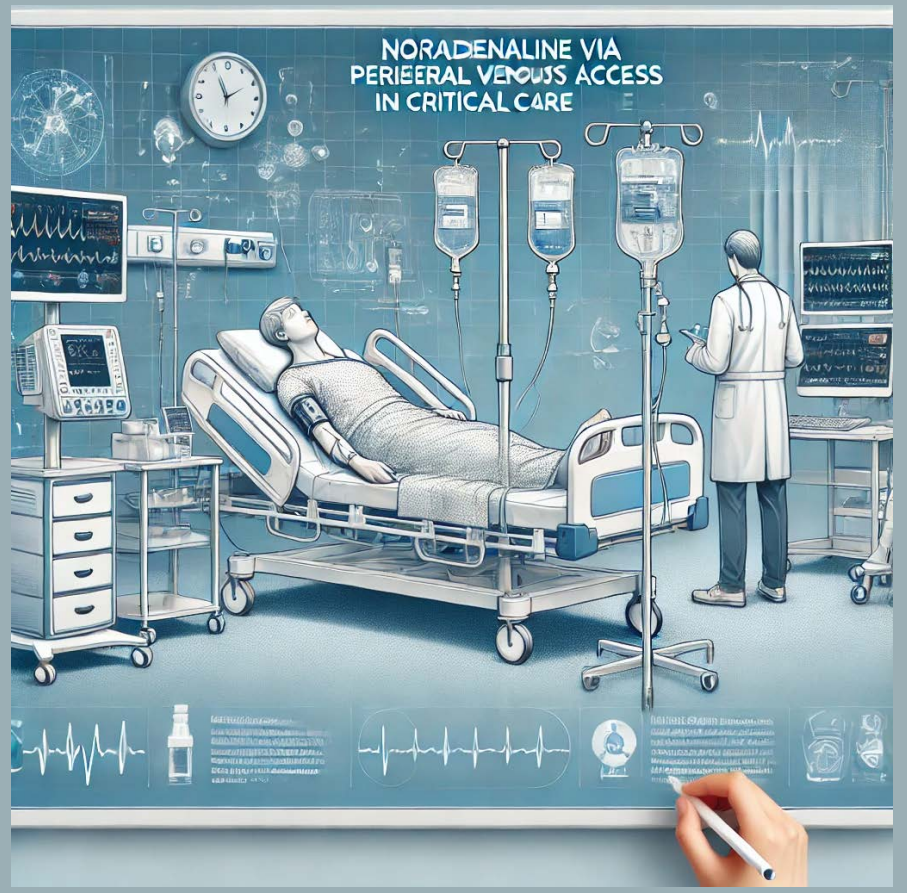
Noradrénaline Sur Voie Veineuse Périphérique



Julien Le Roy

Infirmier de recherche clinique

MIR Saint-Louis

RATIONNEL

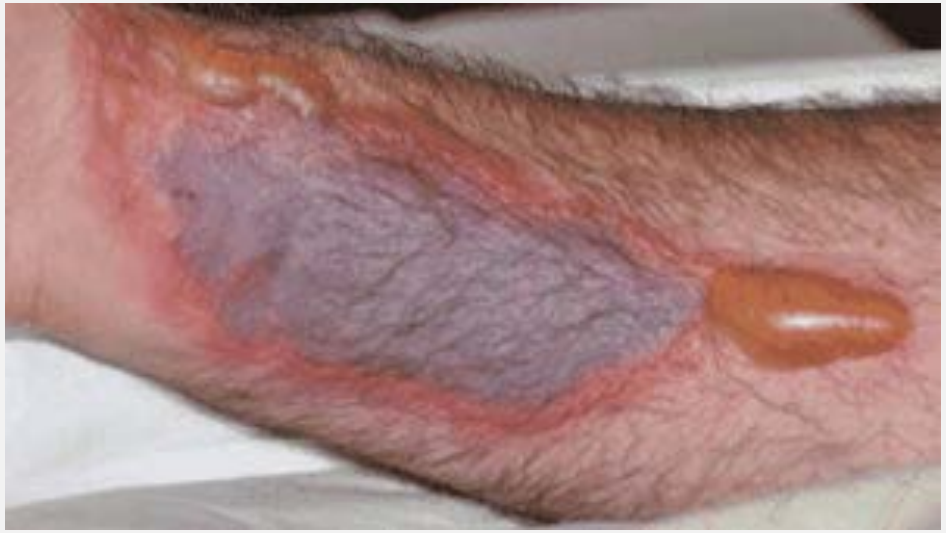
- Est-il possible d'administrer de la noradrénaline par voie veineuse périphérique chez un patient en soins critiques monitoré par un brassard de tension ?

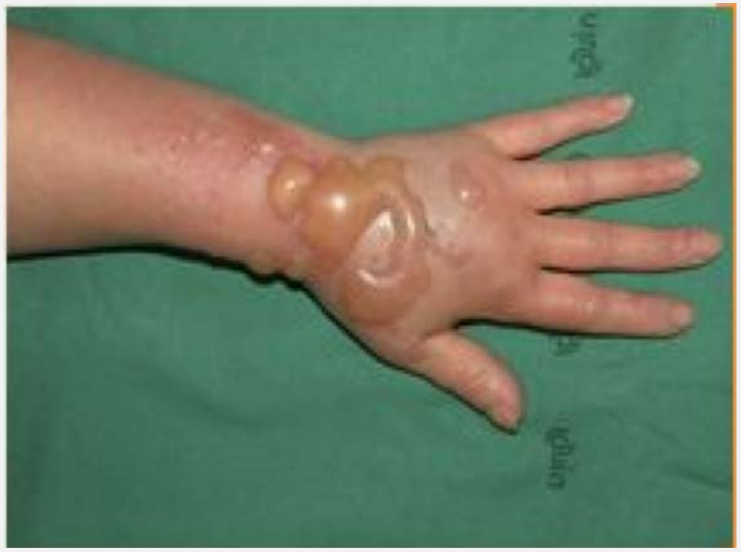
Mode d'administration

La voie d'administration doit être rigoureusement intraveineuse. Toute extravasation peut entraîner une vasoconstriction locale intense et une nécrose éventuelle des tissus. Il est préférable d'utiliser une voie veineuse centrale.

NORADRENALINE (TARTRATE) AGUETTANT 2 mg/ml (SANS SULFITES) doit être obligatoirement diluée avant la perfusion intraveineuse, en principe dans un soluté glucosé ou de chlorure de sodium isotoniques. La noradrénaline ne doit pas être mélangée avec d'autres médicaments.

- On a tous en tête ces histoires d'extravasation.
- Voir, plus rarement, on a été témoin d'un tel événement indésirable.





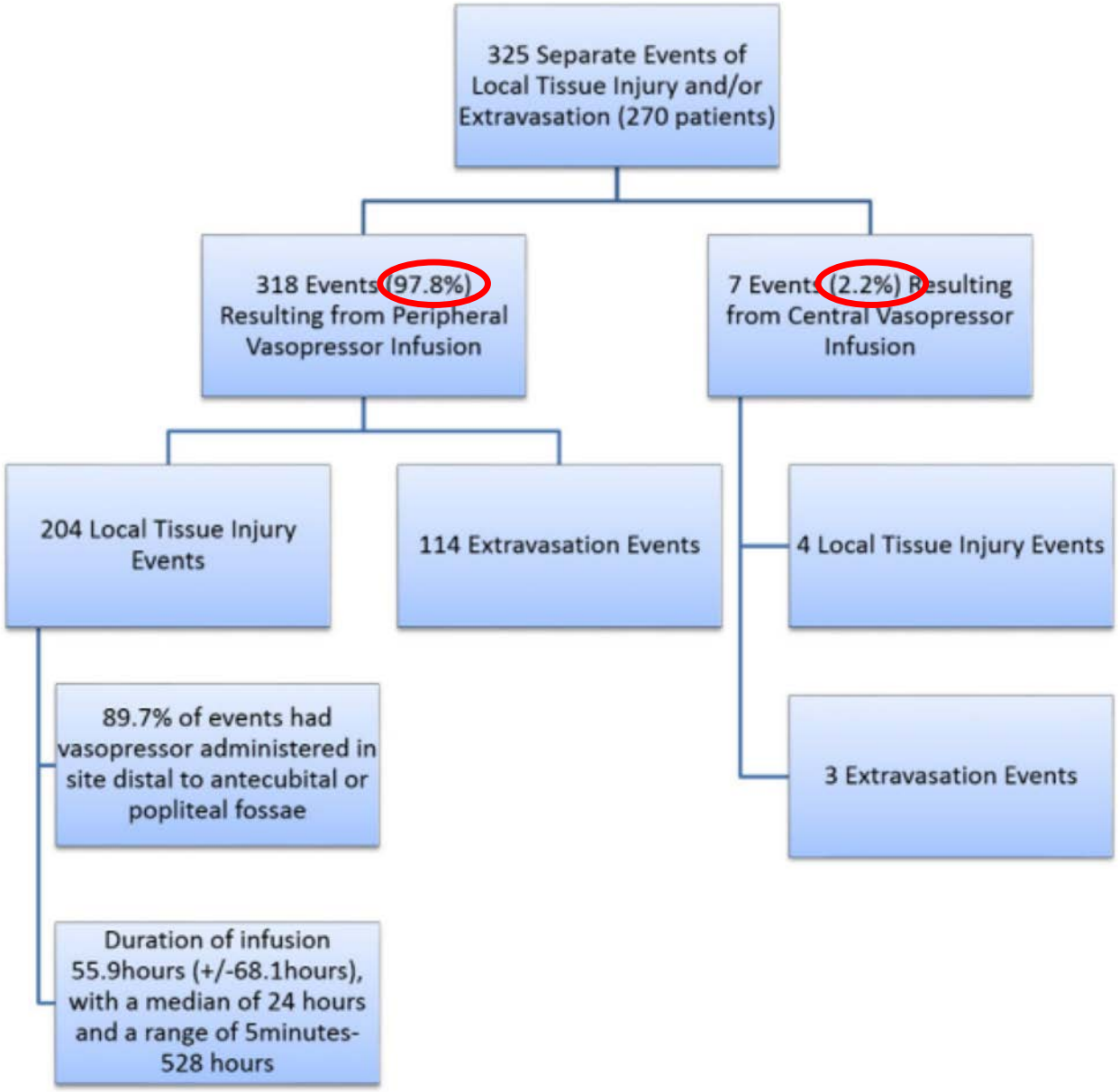
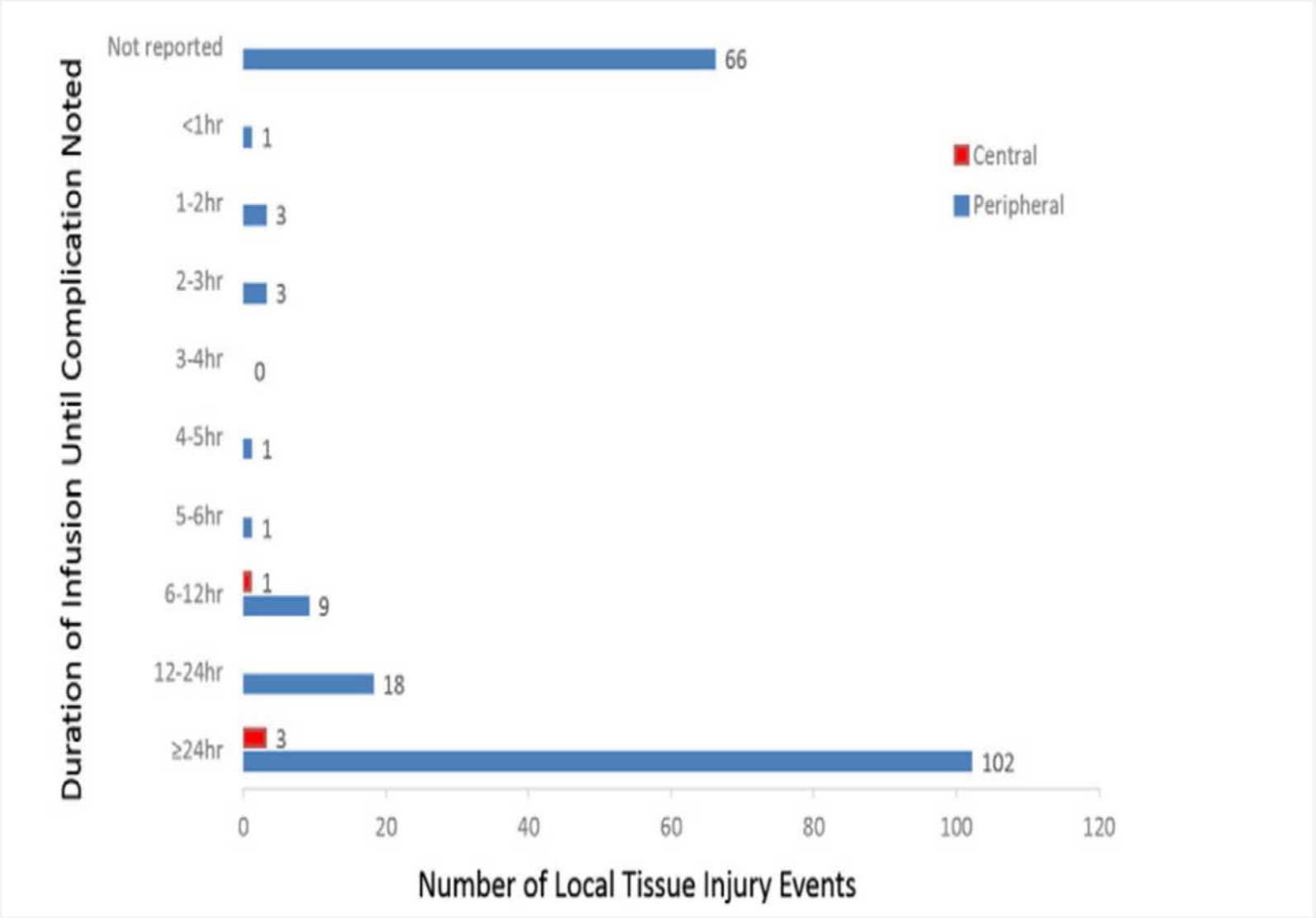


Fig. 3. Flowchart presenting condensed summary of results.

A systematic review of extravasation and local tissue injury from administration of vasopressors through peripheral intravenous catheters and central venous catheters☆,☆☆

Osama M. Loubani, MD, FRCPC [a,*], Robert S. Green, MD, FRCPC [a,b]

Journal of Critical Care 30 (2015) 653.e9–653.e17



La durée moyenne de la perfusion de vasopresseurs avant l'apparition d'une lésion tissulaire locale était de 55,9 heures (±68,1), avec une médiane de 24 heures et une fourchette de 0,08 à 528 heures.

A systematic review of extravasation and local tissue injury from administration of vasopressors through peripheral intravenous catheters and central venous catheters☆,☆☆

Osama M. Loubani, MD, FRCPC [a,*], Robert S. Green, MD, FRCPC [a,b]

Journal of Critical Care 30 (2015) 653.e9–653.e17

7. Conclusions

mainly case reports, and may not be representative of true practice.

This should only be performed as a temporizing measure until central venous access is obtained.

A systematic review of extravasation and local tissue injury from administration of vasopressors through peripheral intravenous catheters and central venous catheters☆,☆☆

Osama M. Loubani, MD, FRCPC [a,*], Robert S. Green, MD, FRCPC [a,b]

Journal of Critical Care 30 (2015) 653.e9–653.e17

	Central[a]	Peripheral[a]	*p*
Patients without any complication, no.	86	67	0.06
At least one complication, no. patients			
Mechanical	42	51	0.14
Infectious	18	23	0.30
Thrombotic	1	5	0.09
Major complications, no. of complications	87	133	0.02
Mechanical	63	92	0.06
Pneumothorax	3	3	
Arterial puncture	7	4	
Hematoma	1	1	
Central venous catheter insertion site changes	34	9	
Peripheral venous catheter insertion difficulties	16	56	
Subcutaneous diffusion	2	19	
Infectious	23	36	0.25
Erythema (>2 cm from insertion site)	8	20	
Phlebitis	1	1	
Unexplained bacteremia	9	6	
Catheter-related bacteremia	1	0	
Catheter infection	4	9	
Thrombotic	1	5	0.09

[a]Initial group assignment (central or peripheral venous catheter).

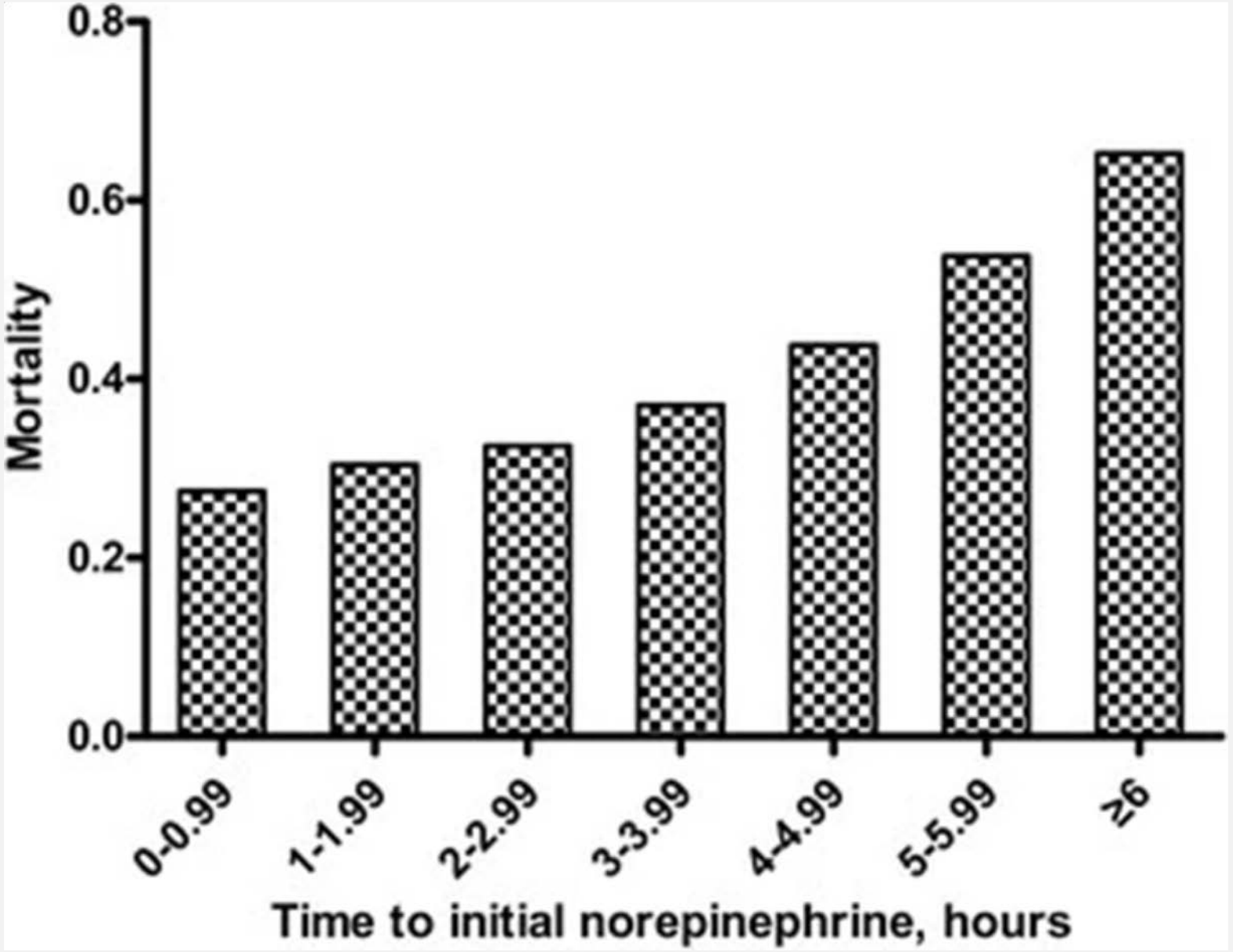
Central or Peripheral Catheters for Initial Venous Access of ICU Patients

A Randomized Controlled Trial

Ricard, Jean-Damien MD, PhD[1,2]; Salomon, Laurence MD, PhD[3]; Boyer, Alexandre MD[4]; Thiery, Guillaume MD[5]; Meybeck, Agnes MD[1]; Roy, Carine MSc[6]; Pasquet, Blandine MSc[6]; Le Mière, Eric MD[1]; Dreyfuss, Didier MD[1,2]

Author Information

Critical Care Medicine 41(9):p 2108-2115, September 2013. | *DOI:* 10.1097/CCM.0b013e31828a42c5



Bai et al. Critical Care 2014, 18:532
http://ccforum.com/content/18/5/532

CRITICAL CARE

RESEARCH Open Access

Early versus delayed administration of norepinephrine in patients with septic shock

Xiaowu Bai, Wenkui Yu*, Wu Ji, Zhiliang Lin, Shanjun Tan, Kaipeng Duan, Yi Dong, Lin Xu and Ning Li*

TABLE 2. *Processes of care and resuscitation interventions for ARISE trial participants who had initiation of a vasopressor infusion via a peripheral venous catheter compared to a central venous catheter*

	iPVC n = 389	iCVC n = 548	P-value
CVC line insertion			
Total, n (%)	360 (92.5)	548 (100)	<0.001
Type (first inserted)			
Standard CVC	190 (52.8)	276 (50.4)	
SvO_2 CVC	152 (42.2)	267 (48.7)	
PA catheter	4 (1.1)	1 (0.2)	0.001
PICC line	3 (0.8)	2 (0.4)	
Double lumen dialysis catheter	10 (2.8)	2 (0.4)	
Other	1 (0.3)	0	
Interval from ED presentation (h)†	4.0 [2.9, 5.2]	3.7 [2.7, 5.2]	0.08
Median time (h) from ED to vasopressor commencement [IQR]	2.4 [1.3, 4.1]	4.9 [3.5, 6.6]	<0.001
Initial vasopressor type, n (%)			
Norepinephrine	293 (75.3)	538 (98.2)	
Epinephrine	38 (9.8)	6 (1.1)	<0.001
Metaraminol	58 (14.9)	4 (0.7)	
Duration (h) of vasopressor infusion from ED admission, median [IQR]			
Any route	26 [8.6, 51]	27 [13, 47]	0.54
Peripheral	1.33 [0.66, 2.5]	–	–
Median [IQR] time (h) from ED to commencement of norepinephrine	3.0 [1.7, 4.7]	5.0 [3.6, 6.6]	<0.001

EMA Emergency Medicine Australasia

Original Research | Full Access

Initiation of vasopressor infusions via peripheral *versus* central access in patients with early septic shock: A retrospective cohort study

Anthony Delaney ✉ Mark Finnis, Rinaldo Bellomo, Andrew Udy, Daryl Jones, Gerben Keijzers, Stephen MacDonald, Sandra Peake

First published: 09 October 2019 | https://doi.org/10.1111/1742-6723.13394 | Citations: 51

The NEW ENGLAND JOURNAL of MEDICINE

SPECIALTIES TOPICS MULTIMEDIA CURRENT ISSUE LEARNING/CME AUTHOR CENTER PUBLICATIONS

REVIEW ARTICLE | CURRENT CONCEPTS

Preventing Complications of Central Venous Catheterization

Authors: David C. McGee, M.D., and Michael K. Gould, M.D. Author Info & Affiliations

Published March 20, 2003 | N Engl J Med 2003;348:1123-1133 | DOI: 10.1056/NEJMra011883 | VOL. 348 NO. 12

[4] More than 15 percent of patients who receive these catheters have complications.[5–7] Mechanical complications are reported to occur in 5 to 19 percent of patients,[5,6,8] infectious complications in 5 to 26 percent,[5,7,9] and thrombotic complications in 2 to 26 percent.[5] In this

CONCISE DEFINITIVE REVIEW

Central venous catheterization

Taylor, Robert W. MD; Palagiri, Ashok V. MD

Critical Care Medicine 35(5):p 1390-1396, May 2007. | **DOI:** 10.1097/01.CCM.0000260241.80346.1B

REVIEW ARTICLES

Complication and Failures of Central Vascular Access Device in Adult Critical Care Settings*

Takashima, Mari RN, BN, Grad Cert ICU, MEpi[1]; Schults, Jessica RN, GCert (Specialist Paed), MAppSci (Research)[1–,3]; Mihala, Gabor MEng, GCert(Biostats)[1,4,5]; Corley, Amanda RN, BN, GradCertHSci, MAdvPrac (Research)[1]; Ullman, Amanda RN, MAppSci, PhD, Centaur Fellow[1,3]

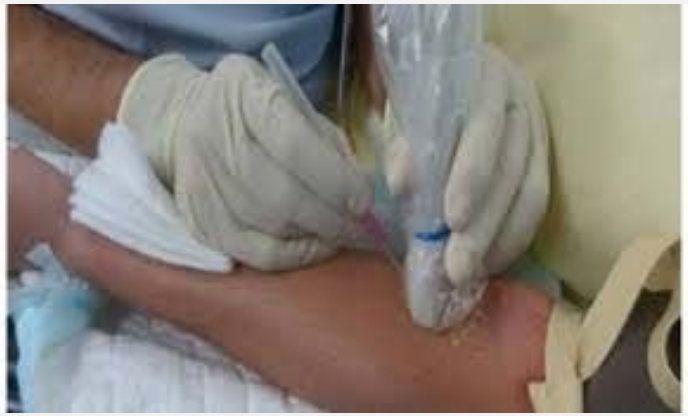
Author Information

Critical Care Medicine 46(12):p 1998-2009, December 2018. | **DOI:** 10.1097/CCM.0000000000003370

TABLE 1. Summary of the Requirements for PIV Access Used for Infusion of VM

Vein diameter >4 mm measured with ultrasonography
Position of PIV access documented to be in the vein with ultrasonography before starting infusion of VM
Upper extremity only, contralateral to the blood pressure cuff
Intravenous line size 20 gauge or 18 gauge
No hand, wrist, or antecubital fossa PIV access position
Blood return from the PIV access prior to VM administration
Assessment of PIV access function every 2 hours as per nursing protocol
Immediate alert by nursing staff to the medical team if line extravasation, with prompt initiation of local treatment
72 hours maximum duration of PIV access use

NOTE: **Abbreviations:** PIV, peripheral intravenous; VM, vasoactive medication.



shm Journal of HOSPITAL MEDICINE www.journalofhospitalmedicine.com

ORIGINAL RESEARCH

Safety of Peripheral Intravenous Administration of Vasoactive Medication

Jose Cardenas-Garcia, MD[1]*, Karen F. Schaub, BS[1], Yuly G. Belchikov, PharmD[2], Mangala Narasimhan, DO[1], Seth J. Koenig, MD[1], Paul H. Mayo, MD[1]

[1]Division of Pulmonary, Critical Care and Sleep Medicine, Hofstra North Shore–Long Island Jewish School of Medicine, Hempstead, New York; [2]Clinical Pharmacy Services, Department of Pharmacy, Westchester Medical Center, Valhalla, New York.

TABLE 2. Treatment of VM via PIV Access Extravasation

1. The VM via PIV infusion is stopped immediately.
2. Residual medication is aspirated through the PIV access, and the catheter is removed.
3. The extent of the extravasation is outlined to provide a baseline for monitoring.
4. Two vials, each containing 5 mg of phentolamine, are reconstituted with 5 mL of normal saline per vial to yield a final concentration of 1 mg/mL.
5. The phentolamine solution is injected in 0.5- to 1-mL aliquots in 5 separate injections around the leading edge of the extravasation, using separate 25-gauge or 27-gauge needles for each injection.
6. Nitroglycerin paste (2.5 cm) is applied to the area of extravasation.
7. A medication occurrence report is filled out for review by the quality committee.

NOTE: **Abbreviations:** PIV, peripheral intravenous; VM, vasoactive medication.

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ORIGINAL RESEARCH

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Jose Cardenas-Garcia, MD[1]*, Karen F. Schaub, BS[1], Yuly G. Belchikov, PharmD[2], Mangala Narasimhan, DO[1], Seth J. Koenig, MD[1], Paul H. Mayo, MD[1]

[1]Division of Pulmonary, Critical Care and Sleep Medicine, Hofstra North Shore–Long Island Jewish School of Medicine, Hempstead, New York; [2]Clinical Pharmacy Services, Department of Pharmacy, Westchester Medical Center, Valhalla, New York.

TABLE 4. Frequency, Highest Dose, and Complications of Vasoactive Medication Administered via PIV Access

Norepinephrine	
Interventions	506
Dose, μg/kg/min, mean ± SD	0.70 ± 0.23
PIV access extravasations	16
Dopamine	
Interventions	101
Dose, μg/kg/min, mean ± SD	12.7 ± 5.23
PIV access extravasations	3
Phenylephrine	
Interventions	176
Dose, μg/kg/min, mean ± SD	3.25 ± 1.69
PIV access extravasations	0

NOTE: **Abbreviations:** PIV, peripheral intravenous; SD, standard deviation.

CONCLUSIONS

The delivery of VM via PIV access is safe and feasible.

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ORIGINAL RESEARCH

Safety of Peripheral Intravenous Administration of Vasoactive Medication

Jose Cardenas-Garcia, MD[1]*, Karen F. Schaub, BS[1], Yuly G. Belchikov, PharmD[2], Mangala Narasimhan, DO[1], Seth J. Koenig, MD[1], Paul H. Mayo, MD[1]

[1]Division of Pulmonary, Critical Care and Sleep Medicine, Hofstra North Shore–Long Island Jewish School of Medicine, Hempstead, New York; [2]Clinical Pharmacy Services, Department of Pharmacy, Westchester Medical Center, Valhalla, New York.

Safety of the Peripheral Administration of Vasopressor Agents

Journal of Intensive Care Medicine
2019, Vol. 34(1) 26-33

DOI: 10.1177/0885066616686035
journals.sagepub.com/home/jic
SAGE

Tyler Lewis, PharmD[1], Cristian Merchan, PharmD, BCCCP[1],
Diana Altshuler, PharmD, BCPS, BCCCP[1],
and John Papadopoulos, PharmD, FCCM, BCCCP, BCNSP[1]

Conclusion

We found an overall incidence of extravasation events of 4% in patients receiving vasopressors through a PVL that were not managed under a strict safety protocol. None of these events were severe enough to require the use of an antidote or surgical intervention, and in 7 of the 8 cases vasopressors were resumed at a separate peripheral site.

d: 13 March 2023 | Revised: 17
.1002/jac5.1844
ICAL PHARMACY R

Australian Critical Care 35 (2022) 506–511
Contents lists available at ScienceDirect
Australian Critical Care
journal homepage: www.elsevier.com/locate/aucc

Research paper

Safety and efficacy of peripheral versus centrally administered vasopressor infusion: A single-centre retrospective observational study

Annaliese Stolz, BSc MBBS [a, b, g], Rachel Efendy, BSc MBBS [a, g], Yogesh Apte, MBBS FCICM [a, b, *], Alison Craswell, RN, PhD [c], Frances Lin, RN, PhD [d], Mahesh Ramanan, MBBS FCICM [a, b, e, f]

Comparison of e
administration o
impleme

Allison C. Fab
Katharine W.
Andrew J. Gc

7. Conclusion

Administration of vasopressor infusions for a short duration in critically ill patients via a peripheral intravenous cannula is feasible,

Peripheral Administration of Norepinephrine

A Prospective Observational Study

Jason R. Yerke, PharmD; Eduardo Mireles-Cabodevila, MD; Alyssa Y. Chen, PharmD; Stephanie N. Bass, PharmD; Anita J. Reddy, MD; Seth R. Bauer, PharmD; Lynne Kokoczka, MSN; Siddharth Dugar, MD; and Ajit Moghekar, MD

pp. 47–53, 2018

ELSEVIER
https://doi.org/10.1016/j.jemermed.2017.09.007

INTERPRETATION: This study suggests that implementing a protocol for peripheral administration of norepinephrine safely can avoid 1 CVC day in the average patient, with 51.6% of patients not requiring CVC insertion. No patient experienced significant ischemic tissue injury with the protocol used. These data support performance of a randomized, prospective,

CrossMark

COMPLICATIONS FROM ADMINISTRATION OF VASOPRESSORS THROUGH PERIPHERAL VENOUS CATHETERS: AN OBSERVATIONAL STUDY

Kamal Medlej, MD,* Amin Antoine Kazzi, MD,† Ahel El Hajj Chehade, MD,† Mothana Saad Eldine, MD,† Ali Chami, MD,† Rana Bachir, MPH,† Dina Zebian, PHD,† and Gilbert Abou Dagher, MD†

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Research Article

Implementation of a Protocol for Peripheral Intravenous Norepinephrine: Does It Save Central Line Insertion, Is It Safe?

Journal of Pharmacy Practice
1-5

DOI: 10.1177/0897190020977712
journals.sagepub.com/home/jpp
SAGE

Kari M. Cape, PharmD, BCPS[1],
Laureen G. Jones, BA, MSN, APRN-CNS, AGCNS-BC, PCCN[1],
Michele L. Weber, DNP, RN, APRN-CNS, APRN-CNP, CCRN, CCNS, OCN, AOCNS[1], and Jessica L. Elefritz, PharmD, BCCCP[1]

Reducing Central Venous Catheter Utilization

Conclusion

In conclusion, a protocol for peripheral administration of norepinephrine was implemented with a low incidence of extravasation (3%) and avoidance of central line placement in 34% of patient administrations.

TABLE 1. *Characteristics of included studies*

Lead author	Year published	Institution	Country	Study period	Study type	Population	Indication	Quality	Patients	Age	Males
Cardenas-Garcia[10]	2015	Long Island Jewish Medical Center, New York	USA	2012–2014	Prospective/retrospective	General ICU	NR	12/13	734	72 ± 15	398 (53%)
Datar[15]	2018	Wake Forest University Health Sciences, North Carolina	USA	2012–2015	Retrospective	Neuro ICU	Haemodynamic augmentation (48%), post-op hypotension (6%); other hypotension (22%), sepsis (6%)	12/13	277	65 ± 15	129 (47%)
Delgado[16]	2016	University of Utah, Utah	USA	2013–2014	Retrospective	Neuro ICU	NR	10/13	20	57 ± 19†	11 (55%)
Joynes[17]	2016	Multiple Australian rural hospitals	Australia	2011–2014	Multi-centre, retrospective	Rural hospitals/retrieval	Sepsis (100%)	7/13	27	NR	NR
Lewis[18]	2017	NYU Langone Medical Center, New York	USA	2015–2016	Retrospective	General ICU	Sepsis (73%), cardiogenic shock (14%), stroke/neurological (7%), other (6%)	11/13	202	74 ± 14†	107 (53%)
Makowski[19]	2010	Medway Foundation Trust, Gillingham	UK	2008–2009	Retrospective, abstract	Surgical HDU	Sepsis (34%), neuraxial opioids (28%), haemorrhage (17%), spinal (7%), cardiogenic shock (6%), dehydration (6%), amiodarone infusion (2%)	5/13	47	73 ± 13†	22 (47%)
Medlej[11]	2018	American University of Beirut Medical Center, Beirut	Lebanon	2013–2015	Prospective	ED	Sepsis (84%), cardiogenic shock (11%), hypovolaemic shock (5%)	10/13	55	70	34 (62%)

†Data converted from median/interquartile. HDU, high dependency unit; ICU, intensive care unit; NR, not reported.

EMA Emergency Medicine Australasia

Emergency Medicine Australasia (2019) doi: 10.1111/1742-6723.13406

ORIGINAL RESEARCH

Safety of peripheral administration of vasopressor medications: A systematic review

David H TIAN,[1] Claire SMYTH,[1] Gerben KEIJZERS,[2,3,4] Stephen PJ MACDONALD,[5,6] Sandra PEAKE,[7,8,9] Andrew UDY[8,10] and Anthony DELANEY[1,8,11,12]

TABLE 3. *Vasopressor administration protocols†*

	Number of infusions	Dilution	Effective dose/mL	Peak dose	Duration (h)	Extravasation
Noradrenaline						
Cardenas-Garcia[10]	506	8–16 mg in 250 mL N/S	32–64 μg/mL	0.70 ± 0.23 μg/kg/min	49 ± 22	16 (2.3%)
Lewis[18]	146	4 mg in 250 mL N/S	16 μg/mL	0.13 μg/kg/ml	11.2 ± 15‡	4 (2.7%)
Medlej[11]	50	8 mg in 250 mL D5W	32 μg/mL	30 μg/min	16.9 ± 18.9‡	2 (4.0%)
Metaraminol						
Joynes[17]	27	NR	NR	NR	NR	NR
Makowski[19]	47	NR	NR	NR	NR	NR
Phenylephrine						
Cardenas-Garcia[10]	176	80–160 mg in 500 mL N/S	160–320 μg/mL			0
Datar[15]	277	NR	120 μg/mL	1.04 ± 0.74 μg/kg/min	19 ± 18	9 (3.2%)
Delgado[16]	20	NR	40 μg/mL	2.0 μg/kg/min	21 ± 13‡	0
Lewis[18]	73	100 mg in 250 mL N/S	400 μg/mL	>150 μg/kg/min	19.7 ± 24.2‡	4 (5.5%)
Dopamine						
Cardenas-Garcia[10]	101	400–800 mg in 250 mL D5W	1.6–3.2 mg/mL	NR	NR	3
Lewis[18]	2	200 mg in 250 mL D5W	0.8 mg/mL	9 μg/kg/min	23.5	0
Medlej[11]	3	NR	NR	15 μg/kg/min	60.5 ± 98.5‡	0
Vasopressin						
Lewis[18]	4	0.16 units/mL	0.16 units/mL	0.06 units/min	13.2 ± 19	0
Adrenaline						
Lewis[18]	2	4 mg in 250 mL N/S	16 μg/mL	0.06 μg/kg/min	4.5	0
Overall	1436				22 (8–36)	38 events (3.4%; 95% CI 2.5–4.7%)

†Patients may have received concurrent infusions. ‡Data converted from median/interquartile. Overall results presented as *n* (%) or mean (95% confidence interval), using randomised-effects meta-analysis of proportions or means. D5W, 5% dextrose; N/S, normal saline; NR, not reported.

EMA Emergency Medicine Australasia

Emergency Medicine Australasia (2019) doi: 10.1111/1742-6723.13406

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David H TIAN,[1] Claire SMYTH,[1] Gerben KEIJZERS,[2,3,4] Stephen PJ MACDONALD,[5,6] Sandra PEAKE,[7,8,9] Andrew UDY[8,10] and Anthony DELANEY[1,8,11,12]

Table 2
Characteristics of included studies.

Author, year	Design	Clinical setting	Total patients	Patients with PIV vasopressor N (%)	Any adverse events N (%)	Presence of safety guidelines
1997 Dugger	Retrospective	ICU	25	25 (100)	17 (100)	No
2006 Putland	Retrospective	ED	220	220 (100)	11 (5)	No
2013 Ricard	Prospective/RCT	ICU	263	128 (49)	45 (35)	No
2015 Cardenas-Garcia [a]	Prospective	ICU	953	783 (82)	19 (2)	Yes
2016 Delgado	Retrospective	ICU	20	20 (100)	1 (5)	No
2018 Datar	Retrospective	ICU	277	277 (100)	9 (3)	No
2018 Medlej	Prospective	ED	55	55 (100)	3 (5)	No
2019 Ballieu	Retrospective	ICU	125	125 (100)	9 (7)	No
2019 Lewis [b]	Retrospective	ICU	202	202 (100)	8 (4)	Yes

American Journal of Emergency Medicine 38 (2020) 2434–2443

Contents lists available at ScienceDirect

American Journal of Emergency Medicine

journal homepage: www.elsevier.com/locate/ajem

Complication of vasopressor infusion through peripheral venous catheter: A systematic review and meta-analysis

Quincy K. Tran, MD, PhD [a,b,*], Gaurika Mester [c], Vera Bzhilyanskaya [c], Leenah Z. Afridi, MBBS [c], Sanketh Andhavarapu [c], Zain Alam [c], Austin Widjaja [c], Brooke Andersen, ACNP-BC [d], Ann Matta, ACNP-BC [d], Ali Pourmand, MD, MPH [e]

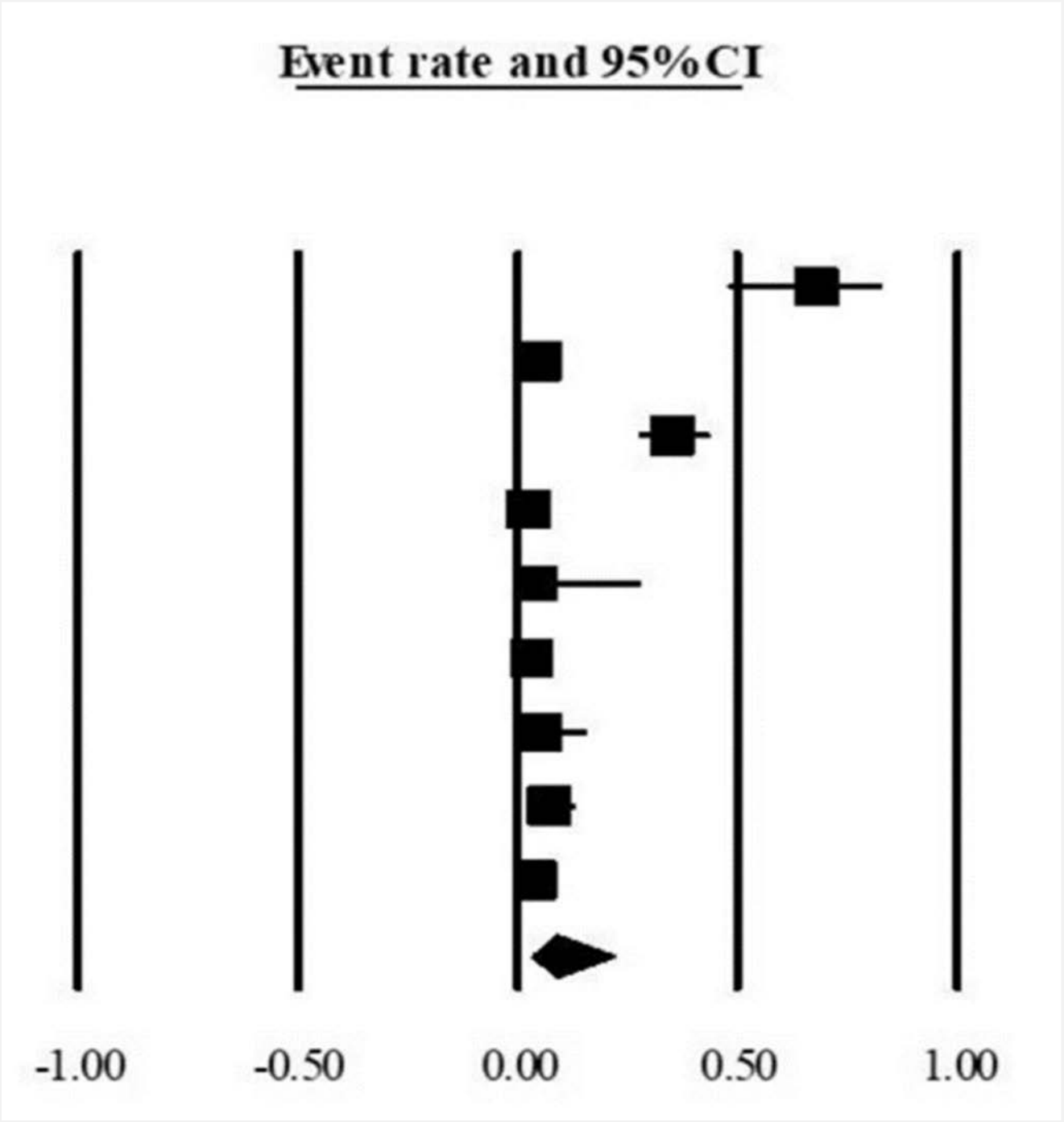

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Table 4B

Results from meta-regressions to identify potential predictors for risk associated with complications from infusing vasopressor via peripheral venous catheters. Univariate meta-regression was performed with infusion length while multivariable meta-regressions were performed for percentages of catheter sizes and percentages of catheter locations

Covariate	Number of study	Correlation coefficient	95% CI	*P*	Adjusted R-square
Infusion length [a]	8	−0.06	−0.14 to 0.02	0.13	0.08
Catheter size [b]	7				
18-gauge catheter		−5.6	−10.4 to 0.9	0.02	0.61
20-gauge catheter		−7.3	−12.2 to 2.4	0.01	
22-gauge catheter		1.7	−2.38 to 5.7	0.42	
Catheter Location [c]	6				
Forearm		4.49	−24.7 to 33.7	0.76	0.25
hand/wrist		1.03	−35.8 to 37.9	0.96	

[a] Length of infusion in hours was entered in the univariable meta-regression. If a study reported the use of multiple vasopressors, we used the length of norepinephrine.

[b] percentages of each catheter's size were entered into the multivariable meta-regression containing only catheter sizes.

[c] percentages of each location of catheters were entered into the multivariable meta-regression containing only catheter locations.

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Complication of vasopressor infusion through peripheral venous catheter: A systematic review and meta-analysis

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PLOS ONE

OPEN ACCESS

STUDY PROTOCOL

Randomised, controlled, feasibility trial comparing vasopressor infusion administered via peripheral cannula versus central venous catheter for critically ill adults: A study protocol

Stacey Watts, Yogesh Apte, Thomas Holland, April Hatt, Alison Craswell, Frances Lin, Alexis Tabah, Robert Ware, Joshua Byrnes, Christopher Anstey, Gerben Keijzers, Mahesh Ramanan

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Discussion

VIPCA is a feasibility RCT whose outcomes will inform the feasibility and design of a multicentre Phase-3 trial comparing routes of vasopressor delivery. The exploratory economic analysis will provide input data for the full health economic analysis which will accompany any future Phase-3 RCT.

Enquête PerNAD

Enquête Nationale sur l'administration de la Noradrénaline via une voie veineuse périphérique dans les services de soins critiques

OBJECTIF DE L'ENQUÊTE

Décrire

Etat des lieux de l'administration de NAD via VVP

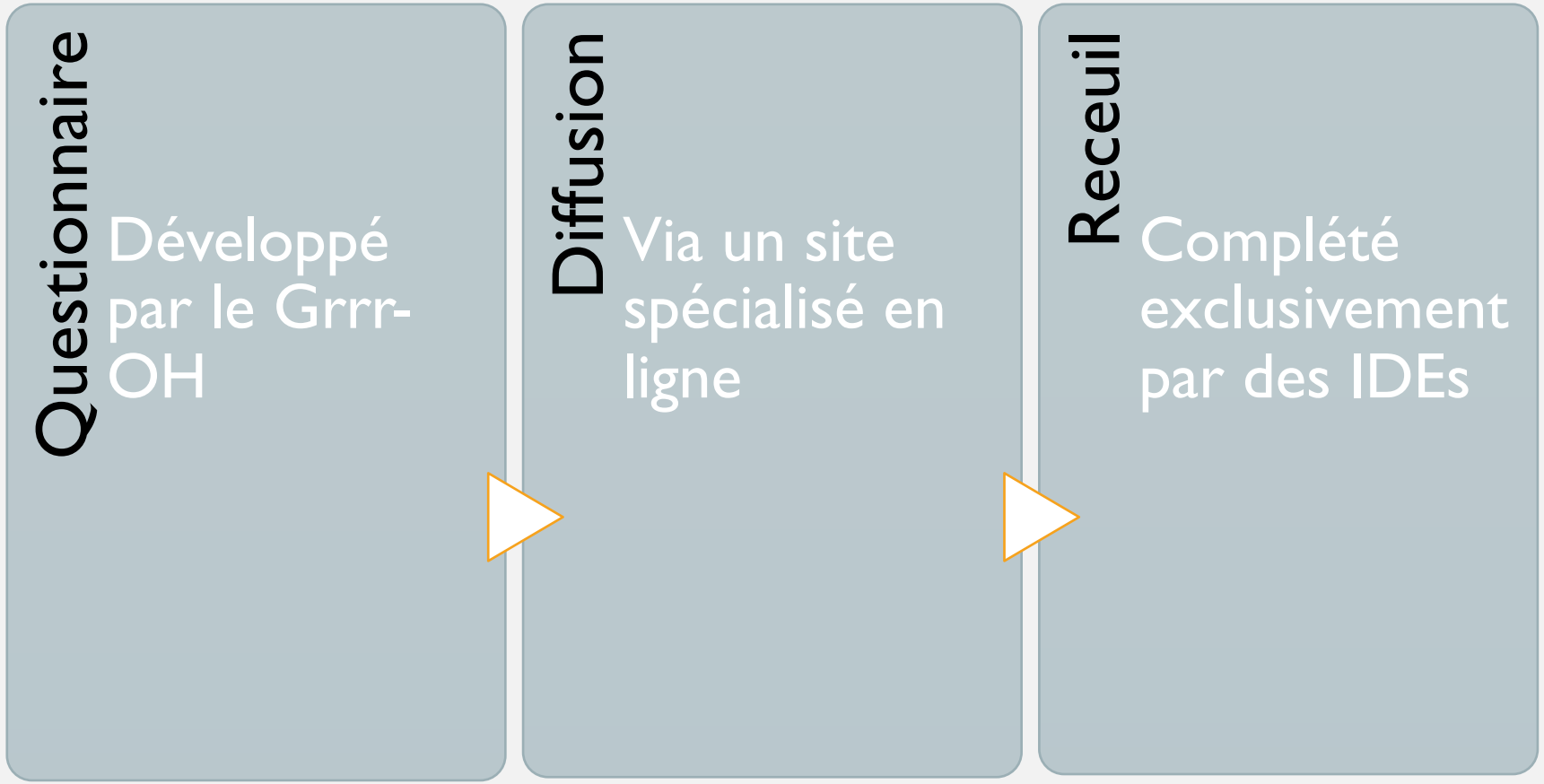
Comprendre

Les disparités dans les méthodes d'administration

Documenter

les difficultés présumées ou effectives

MÉTHODOLOGIE



MÉTHODOLOGIE

Octobre 2023 Novembre

L'analyse statistique effectué par le

grrr oh
www.grrroh.fr

RÉSULTATS

585 réponses provenant de 147 services

5 réponses non analysées car répondants non IDEs

1 réponse non analysée par manque de données renseignées

579 réponses analysées

RÉSULTATS

LES EXPERTS: MANHATTAN

Ages des répondants	N= (%)
20-25	75 (13%)
25-30	129 (22,3%)
30-35	131 (22,6%)
35-40	97 (16,8%)
40-45	75 (13,0%)
45+	53 (9,2%)
NA	19 (3,3%)

Années de diplômes	N= (%)
0-2	47 (8,1%)
2-5	123 (21,2%)
5-10	127 (21,9%)
10+	261 (45,1%)
NA	21 (3,6%)

XP en réa	N= (%)
0-2	100 (17,3%)
2-5	153 (26,4%)
5-10	129 (22,3%)
10+	175 (30,2%)
NA	21 (3,6%)

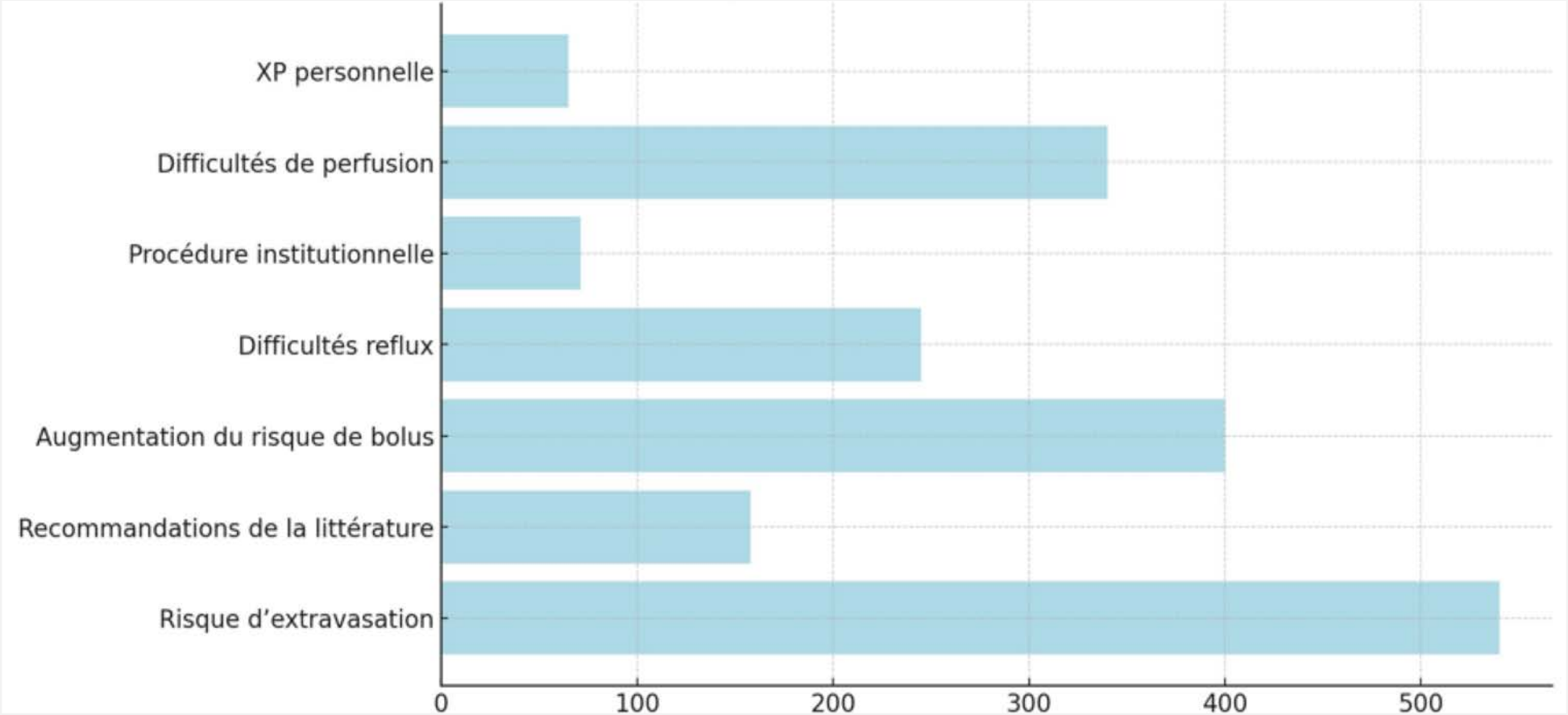
RÉSULTATS

CH	CHU	ESPIC	HIA	Privé
426	139	7	6	1

Chirurgical	Médical	Médico-Chirurgical	Autre
10	155	280	134

RÉSULTATS

La majorité des répondants déclare utiliser la NAD en VVP (4.00 [2.00, 7.00])



RÉSULTATS

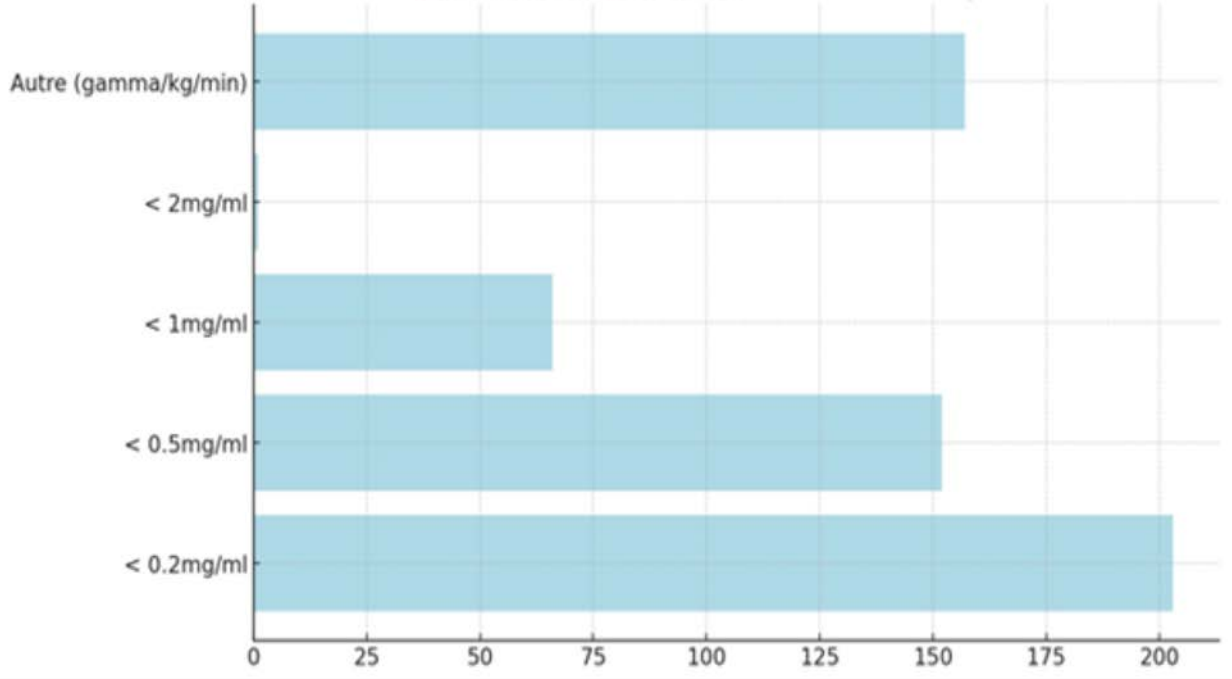
la fréquence observée d'extravasation (0.00 [0.00, 1.00])

RÉSULTATS

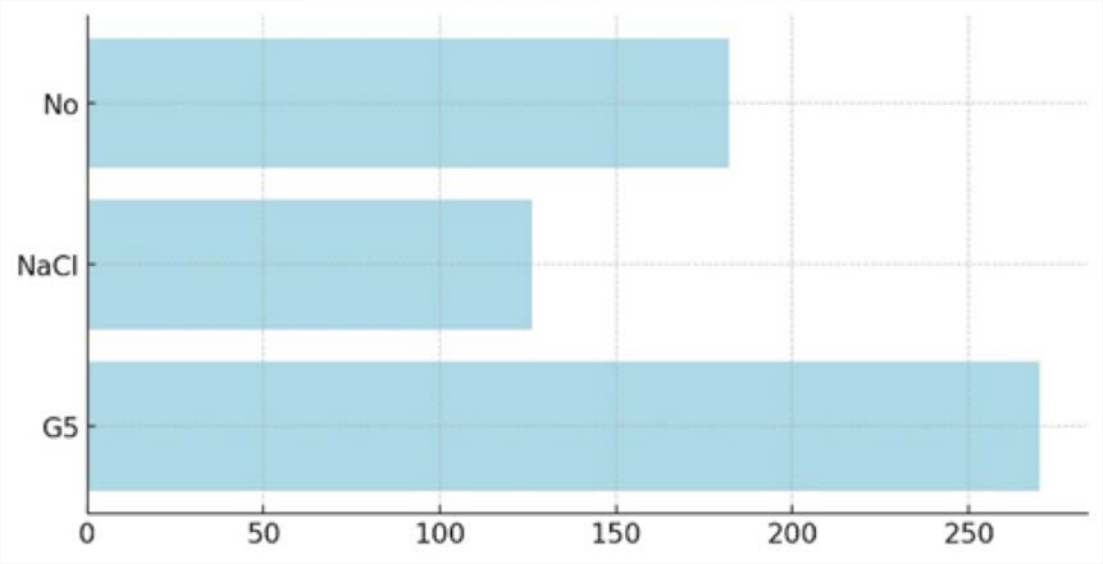
Intentionnalité de l'administration de NAD via VVP	N= (%)
Dans l'attente de la pose d'une VVC	393 (67,9%)
Limiter la pose de VVC	116 (20%)
Réduire les coûts	5 (0,8%)

RÉSULTATS

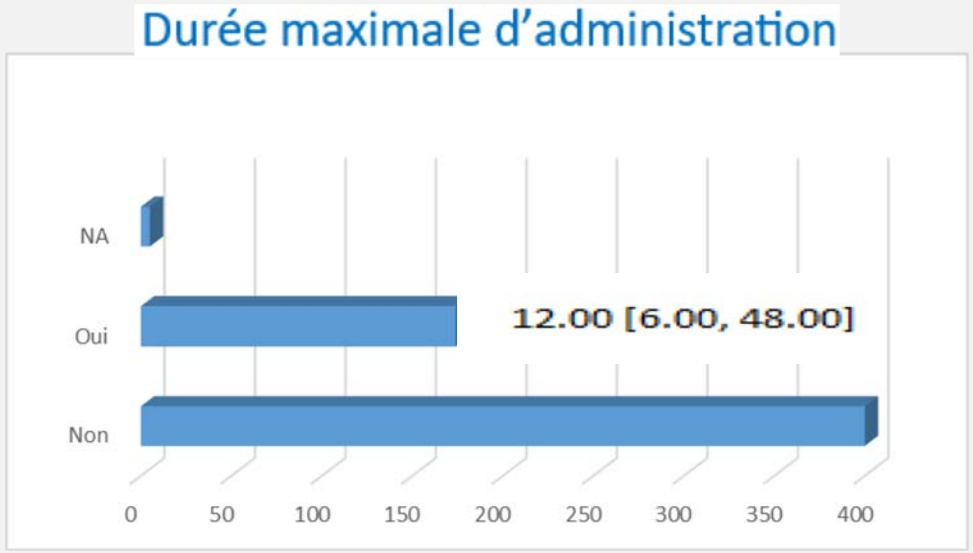
Dilution utilisée

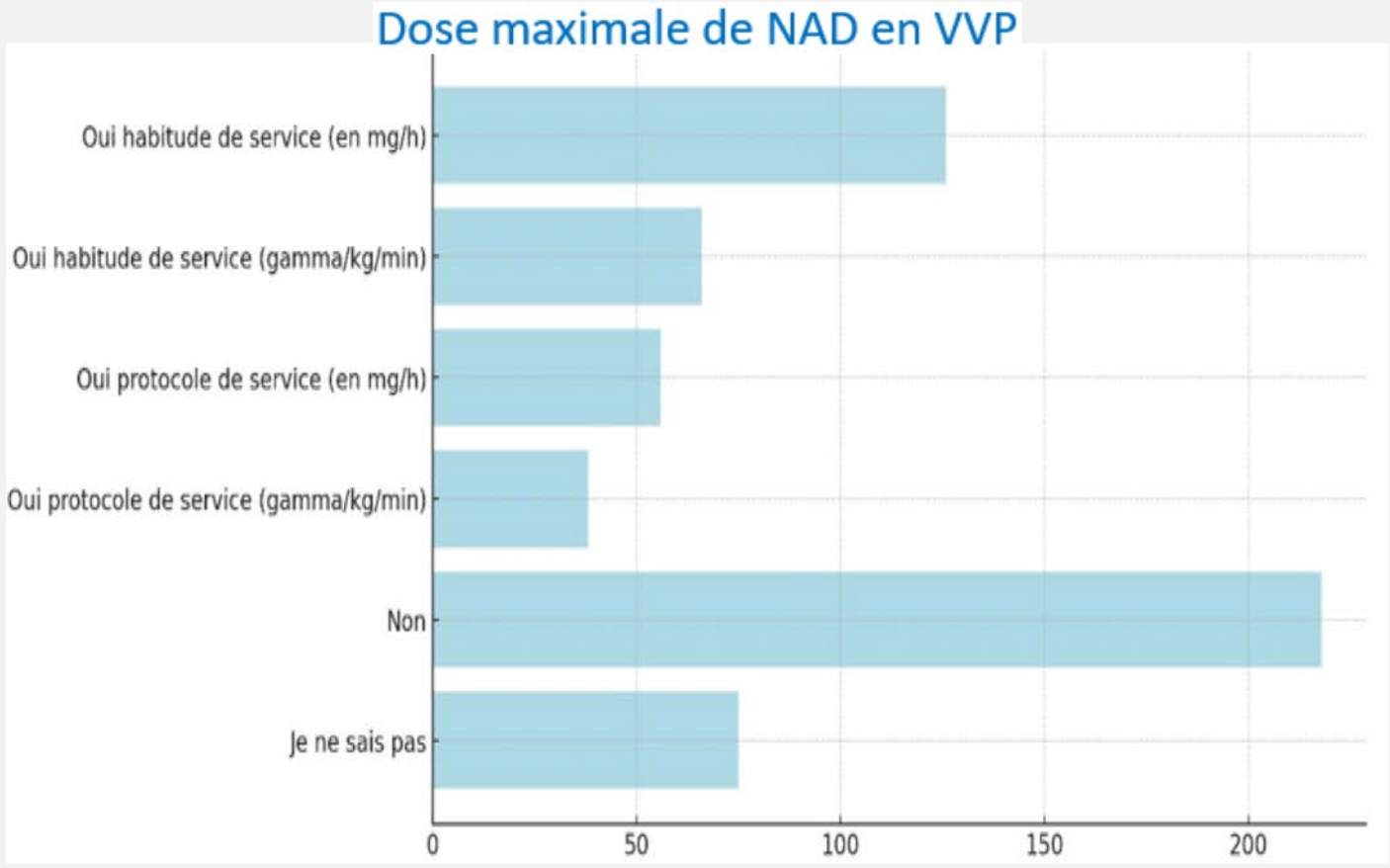


Utilisation d'un vecteur

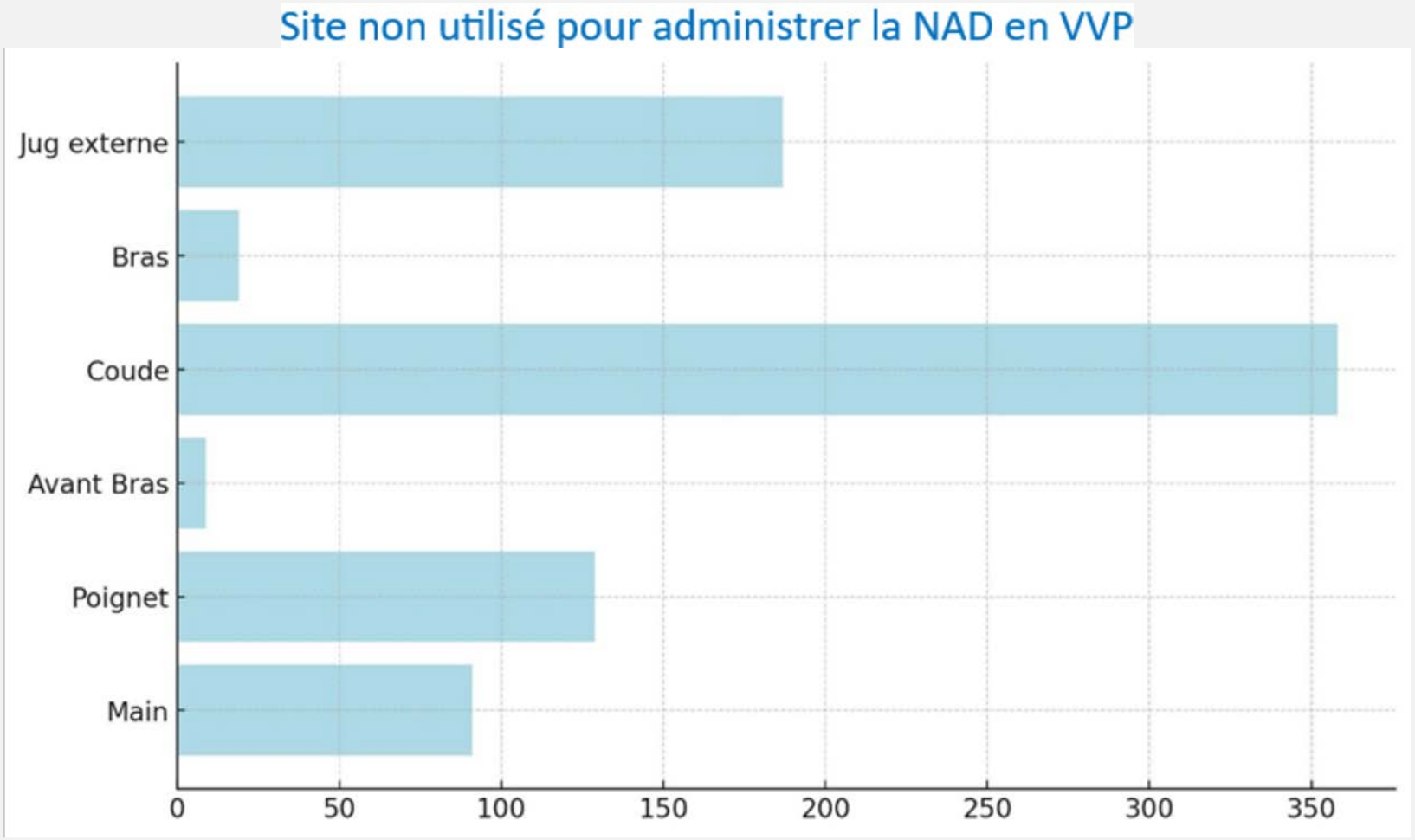


RÉSULTATS


Durée maximale d'administration
NA
Oui
Non
12.00 [6.00, 48.00]
0
50
100
150
200
250
300
350
400


Dose maximale de NAD en VVP
Oui habitude de service (en mg/h)
Oui habitude de service (gamma/kg/min)
Oui protocole de service (en mg/h)
Oui protocole de service (gamma/kg/min)
Non
Je ne sais pas
0
50
100
150
200

RÉSULTATS


Site non utilisé pour administrer la NAD en VVP
Jug externe
Bras
Coude
Avant Bras
Poignet
Main
0
50
100
150
200
250
300
350

RÉSULTATS

Variable	Estimate	Conf.low	Conf.high	P.value
Dans le but de limiter les CVC	1.22	1.1	1.34	0.000112
Procédure médico/paramédicale	2.58	1.41	4.71	0.00208
>45ans	0.444	0.202	0.977	0.0437

RECOMMANDATIONS

- <u>Ce qui ressort en l'état actuelle des connaissances :</u>

- Dose max d'administration faible (1mg/h dans notre service)

- Concentration assez faible (0,2mg/ml max dans notre service)

- Durée max d'administration non définie (à adapter selon la durée de vie d'une VVP ?)

RECOMMANDATIONS

- Sélection des sites de perfusion (Pas le pli du coude, main, jug ext, poignet)
- Pose des VVP échoguidée ?
- 2 VVP systématiques
- Nécessité d'un protocole de service concernant sur la prise en charge des extravasations éventuelles (phentolamine/nitroglycérine)

CONCLUSION

- L'administration de NAD via VVP semble être une alternative sure et efficace à l'utilisation systématique de CVC (dans l'attente de RCP)

- Sous réserve d'utiliser un protocole de service bien défini en termes de site de perfusion, de dose et durée max, et d'un protocole de prise en charge des extravasations éventuelles

- L'importance de limiter les disparités dans nos méthodes d'administration de la NAD semble à discuter