Position Statement on Regional Anesthesia by non-Anesthetists.

Marc Van de Velde, MD, PhD, EDRA.
Professor of Anaesthesia, Department Cardiovascular Sciences, Catholic University Leuven (KUL)
Chair, Department of Anaesthesiology, University Hospitals Leuven (UZL), Leuven, Belgium
OAA Committee member
Chair PROSPECT-group and Chair ESRA EDUCATIONAL COMMITTEE
Editor-in-Chief Best Research and Practice in Clinical Anaesthesiology
Deputy-Editor-in-Chief European Journal of Anaesthesiology
Marc.vandevelde@uzleuven.be

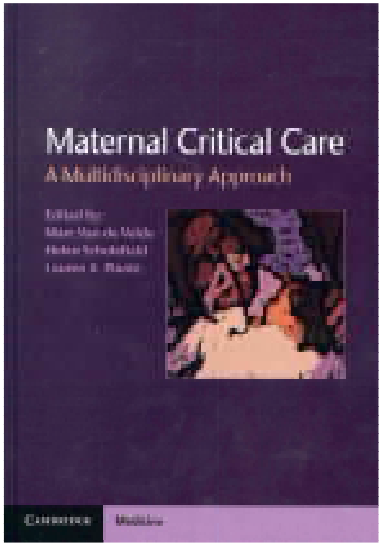
UZ Leuven | Herestraat 49 B - 3000 Leuven | www.uzleuven.be tel. +32 16 33 22 11 | UNIVERSITY HOSPITALS LEUVEN

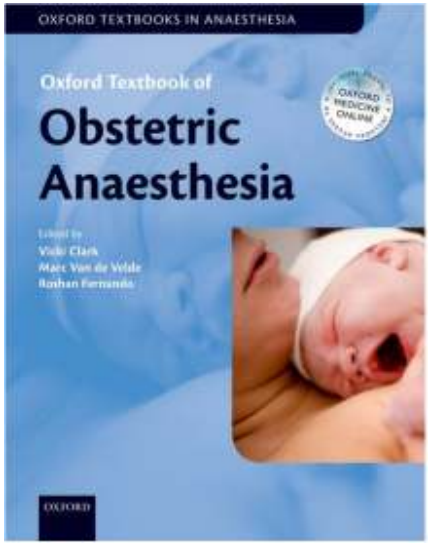
Conflicts of Interest

Dr. Van de Velde receives or has received in the last three years financial support of the following companies for either research (R), consultancy (C,) or lectures (L)

He is co-editor of 3 textbooks of Obstetric Anesthesia.

- Sintetica (L, R).
- Grunenthal (L, C).
- Nordic Pharma (C, L).
- MSD (L, C).
- Janssens Pharmaceutics (C).
- HeronTx (C, L).
- Aquettant (C, L).
- Aspen (L).
- Viforpharma (C).
- Flatmedical (C).
- Ever Pharma (C, L)
- Medtronic (C).
- Ferrer (C).
- CSL Behring (C).





UZ Leuven: 2000 bed hospital; 49 OR's; 60.000 anesthetics

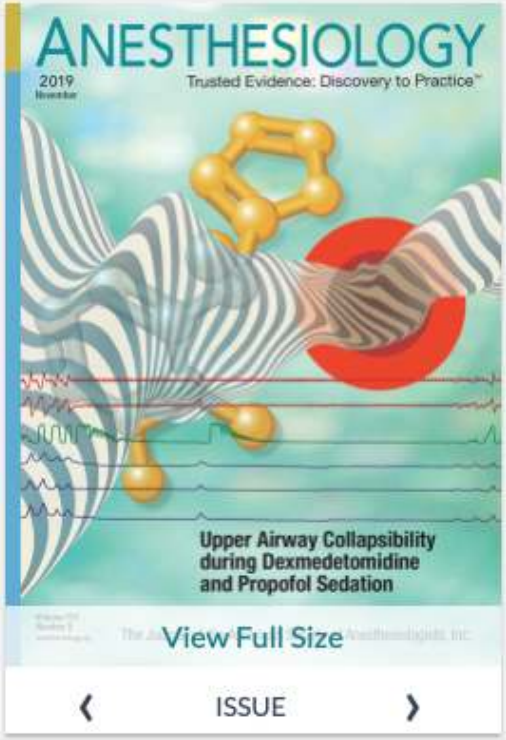
5000 Epidurals-CSE's (labour - C-section - thoracic epidurals - lower limb-vascular).
4000 peripheral nerve blocks.
1000 Abdominal wall blocks.

Regional Anesthesia.

- Trauma (hip/shoulder): emergency physicians or nurses !
- Epidurals / spinals by non-anesthesiologists.

- Enhanced recovery.

Regional Anesthesia.



Perioperative Medicine | November 2019

A Population-based Comparative Effectiveness Study of Peripheral Nerve Blocks for Hip Fracture Surgery

Gavin M. Hamilton, M.D., M.Sc.; Manoj M. Lalu, M.D., Ph.D., F.R.C.P.C.; Reva Ramlogan, M.D., F.R.C.P.C.; Gregory L. Bryson, M.D., M.Sc., F.R.C.P.C.; Faraj W. Abdallah, M.D., M.Sc.; et al

+ Author Notes

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Abstract

Editor's Perspective:

What We Already Know about This Topic:

- Many observational analyses and ongoing randomized trials have evaluated the potential value of neuraxial *versus* general anesthesia for hip fracture surgery
- The association between peripheral nerve blocks and outcomes after hip fracture surgery is less well studied

What This Article Tells Us That Is New:

- Among elderly patients undergoing emergency hip fracture surgery in Ontario, Canada, peripheral nerve blocks may be associated with slightly decreased postoperative lengths of stay and health system costs
- The use of peripheral nerve blocks was not associated with a difference in postoperative pneumonia rates

Peripheral Nerve Blocks for Hip Fractures: A Cochrane Review

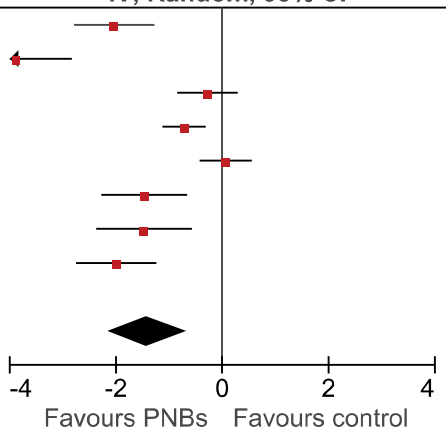
(Anesth Analg 2018;126:1695–704)

Joanne Guay, MD,*† Martyn J. Parker, MD,‡ Richard Griffiths, MD,§ and Sandra L. Kopp, MD‖

8 trials with 373 participants,

Study or Subgroup	Std. Mean Difference	SE	Experimental Total	Control Total	Weight	Std. Mean Difference IV, Random, 95% CI
Diakomi 2014 (14)	-2.034	0.385	21	20	12.4%	-2.03 [-2.79, -1.28]
Domac 2015 (15)	-3.885	0.537	20	20	11.0%	-3.88 [-4.94, -2.83]
Foss 2007 (16)	-0.278	0.29	24	24	13.1%	-0.28 [-0.85, 0.29]
Gille 2006 (17)	-0.716	0.206	50	50	13.7%	-0.72 [-1.12, -0.31]
Iamaroon 2010 (18)	0.066	0.25	32	32	13.4%	0.07 [-0.42, 0.56]
Murgue 2006 (19)	-1.469	0.412	16	0	12.2%	-1.47 [-2.28, -0.66]
Szucs 2012 (20)	-1.471	0.46	12	12	11.7%	-1.47 [-2.37, -0.57]
Yun 2009 (21)	-1.997	0.387	20	20	12.4%	-2.00 [-2.76, -1.24]
Total (95% CI)			**195**	**178**	**100.0%**	**-1.41 [-2.14, -0.67]**

Heterogeneity: Tau² = 0.99; Chi² = 71.16, df = 7 (P < 0.00001); I² = 90%
Test for overall effect: Z = 3.74 (P = 0.0002)



Risk of bias legend
(**A**) Random sequence generation (selection bias)
(**B**) Allocation concealment (selection bias)
(**C**) Blinding of participants and personnel (performance bias)
(**D**) Blinding of outcome assessment (detection bias)
(**E**) Incomplete outcome data (attrition bias)
(**F**) Selective reporting (reporting bias)
(**G**) Other bias

Figure 2. Forest plot for pain on movement within 30 minutes of block placement. The difference is equivalent to –3.4 on a scale from 0 to 10.

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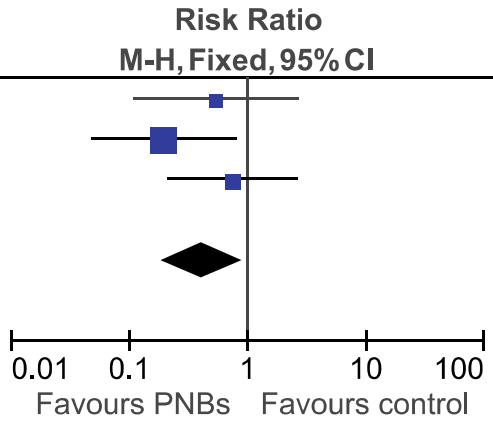
Study or Subgroup	Nerve block Events	Total	Control (no block) Events	Total	Weight	Risk Ratio M-H, Fixed, 95% CI
Fletcher 2003 (32)	2	24	4	26	21.5%	0.54 [0.11, 2.69]
Haddad 1995 (33)	2	24	9	21	53.7%	0.19 [0.05, 0.80]
White 1980 (29)	3	16	5	20	24.9%	0.75 [0.21, 2.67]
Total (95% CI)		**64**		**67**	**100.0%**	**0.41 [0.19, 0.89]**
Total events	7		18			

Heterogeneity: Chi² = 2.06, df = 2 (P = 0.36); I² = 3%

Test for overall effect: Z = 2.24 (P = 0.03)



Risk of bias legend

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Figure 4. Forest plot for pneumonia. Peripheral nerve blocks reduce the risk of pneumonia.

No difference in mortality !

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Table. Peripheral Nerve Blocks for Hip Fracture

Outcomes	Illustrative Comparative Risks (95% CI)		Relative Effect (95% CI)	No. of Participants (Studies)	Quality of the Evidence (GRADE)	Comments
	Assumed Risk Systemic Analgesia	Corresponding Risk Peripheral Nerve Blocks				
Pain on movement at 30 min after block placement Follow-up: 20–30 min		The mean pain on movement at 30 min after block placement in the intervention groups was 1.41 SMDs lower (2.14–0.67 lower)		373 (8 studies)	⊕⊕⊕⊕ high[a]	Equivalent to −3.4 on a scale from 0 to 10
Acute confusional state	Study population		RR, 0.69 (0.38–1.27)	676 (7 studies)	⊕⊖⊖⊖ very low[b]	
	198 per 1000	136 per 1000 (75–251)				
	Low					
	150 per 1000	104 per 1000 (57–190)				
	High					
	250 per 1000	172 per 1000 (95–317)				
Myocardial ischemia	Study population		RR, 0.2 (0.03–1.42)	20 (1 study)	⊕⊖⊖⊖ very low[c]	
	500 per 1000	100 per 1000 (15–710)				
	Low					
	100 per 1000	20 per 1000 (3–142)				
	High					
	500 per 1000	100 per 1000 (15–710)				
Pneumonia	Study population		RR, 0.41 (0.19–0.89)	131 (3 studies)	⊕⊕⊕⊖ moderate[d]	
	269 per 1000	110 per 1000 (51–239)				
	Low					
	50 per 1000	20 per 1000 (9–44)				
	High					
	200 per 1000	82 per 1000 (38–178)				
Death Follow-up: 0–6 mo	Study population		RR, 0.72 (0.34–1.52)	316 (7 studies)	⊕⊕⊖⊖ low[e]	
	98 per 1000	70 per 1000 (33–149)				
	Low					
	25 per 1000	18 per 1000 (9–38)				
	High					
	150 per 1000	108 per 1000 (51–228)				
Time to first mobilization	Time to first mobilization in hours	The mean time to first mobilization in the intervention groups was 11.25 lower (14.34–8.15 lower)		155 (2 studies)	⊕⊕⊕⊕ moderate[f]	
Cost of analgesic regimens for single-shot blocks		The mean cost of analgesic regimens for single-shot blocks in the intervention groups was 3.48 SMDs lower (4.23–2.74 lower)		75 (1 study)	⊕⊕⊕⊖ moderate[g]	

Regional Anesthesia.

- Trauma (hip/shoulder): emergency physicians or nurses !
- Epidurals / spinals by non-anesthesiologists.

- Enhanced recovery.

- => Protection of profession.
- => Quality ?
- => Catheter based techniques.
- => Management of complications.

(Acta Anaesth. Belg., 2019, 70, 105-106)

Position Statement of the Society for Anesthesia and Resuscitation of Belgium (SARB), the Belgian Association of Regional Anesthesia (BARA) and the Belgian Professional Association of Specialists in Anesthesia and Resuscitation (BSAR-APSAR)

Regional anesthesia performed by non-anesthesiologists

M. Van de Velde (*), S. Carlier (**), M. Breebaert (***), V. Bonhomme (****)

On behalf of the SARB, BARA and BSAR-APSAR boards

SARB board : Vincent Bonhomme, Patrick Wouters, Luc Foubert, Jean Francois Brichant, Stefan De Hert, Panayota Kapessidou, Annelies Moerman, Mona Momeni, Jan Poelaert, Steffen Rex, Vera Saldien, Marc Van de Velde, Michel Van Dyck, Luc Van Obbergh, Shaun de Meirsman, Luc Sermeus.

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However, changes in funding models, the need for cost efficiencies and increased clinical workloads have driven the development of "extended roles" for non-medically qualified healthcare professionals such as nurses, anesthetic nurses, operating department practitioners (ODPs), paramedics and physician's assistants in anesthesia [PA(A)s]. In some countries, these healthcare professionals have extended their roles to the performance of a variety of regional anesthetic techniques such as sub-Tenon's, fascia iliaca and brachial plexus blocks. While SARB, BARA and BSAR-APSAR fully understand the pressures upon health services to be cost-effective and innovative, they cannot support the development of working practices in which patient safety is compromised by the pursuit of these

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SARB adopts a holistic approach to regional anesthesia, believing that the technical performance of a block must not be separated from the overall care of the patient, to include thorough clinical assessment of patients scheduled to undergo surgery, consideration of all available options for regional and general anesthesia, effective communication of the risks and benefits of the alternatives to the patient, the acquisition of informed consent, the preparation of the patient for anesthesia and surgery, the performance of a range of regional anesthetic techniques, physiological monitoring during surgery, surveillance during recovery from anesthesia, and postoperative care. In particular, SARB believes

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postoperative care. In particular, SARB believes that the healthcare professional delivering regional anesthesia must not only be cognizant of the potential complications of regional anesthesia but must also be able to diagnose the complications, manage them clinically, and offer alternative therapies that may become necessary as a result, such as resuscitation and the safe administration of general anesthesia to a physiologically unstable patient who may have multiple comorbidities. SARB believes that

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this breadth of skills and knowledge can only be acquired through a formal, medical education program followed by comprehensive training in anesthesia, and therefore thinks that patient safety is best served when regional anesthesia is delivered by medically qualified healthcare professionals who are undergoing or have completed an accredited full training program in anesthesiology.

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Guidance

Regional anesthetic techniques (spinal, epidural, combined spinal epidural, percutaneous plexus blocks, percutaneous field blocks and percutaneous peripheral nerve blocks) should only be performed by anesthesiologists or anesthesiologists in training.

SARB, BSAR-ASPAR and BARA cannot currently support the performance by non-anesthesiologist trained physi-cians or non-medically qualified personnel of spinal, epidural and other neuraxial blocks, plexus and other trunk blocks, and peripheral nerve blocks. Performing a regional anesthetic technique is much more than a technical act and therefore can only be performed following extensive and in depth training.

Take home messages.

- Regional anesthesia benefits patients also at remote locations.
- Be proud and defend your profession.
- So also perform the blocks yourself as anesthetists wherever they should be performed.

Thank You for Your attention

UZ LEUVEN

Obstetric Anaesthesia -
Research into Practice

5th ESRA Spring Monothematic Conference

20 - 24 April 2020 | Algarve, Portugal

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