Position Statement on Regional Anesthesia by non-Anesthetists.

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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).
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.

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

Enhanced recovery.
8 trials with 373 participants,

<table>
<thead>
<tr>
<th>Study or Subgroup</th>
<th>Std. Mean Difference</th>
<th>SE</th>
<th>Control Total</th>
<th>Weight</th>
<th>Std. Mean Difference</th>
<th>IV, Random, 95% CI</th>
<th>Risk of Bias</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diakomi 2014 (14)</td>
<td>-2.034 0.385</td>
<td>21</td>
<td>20</td>
<td>12.4%</td>
<td>-2.03 [-2.79, -1.28]</td>
<td></td>
<td>++ ++ ? + + + +</td>
</tr>
<tr>
<td>Foss 2007 (16)</td>
<td>-0.278 0.29</td>
<td>24</td>
<td>24</td>
<td>13.1%</td>
<td>-0.28 [-0.85, 0.29]</td>
<td></td>
<td>+ + + + ++ + +</td>
</tr>
<tr>
<td>Gille 2006 (17)</td>
<td>-0.716 0.206</td>
<td>50</td>
<td>50</td>
<td>13.7%</td>
<td>-0.72 [-1.12, -0.31]</td>
<td></td>
<td>+ + ? ? ? + + +</td>
</tr>
<tr>
<td>Iamaro 2010 (18)</td>
<td>0.066 0.25</td>
<td>32</td>
<td>32</td>
<td>13.4%</td>
<td>0.07 [-0.42, 0.56]</td>
<td></td>
<td>+ + + + + + + +</td>
</tr>
<tr>
<td>Murgue 2006 (19)</td>
<td>-1.469 0.412</td>
<td>16</td>
<td>0</td>
<td>12.2%</td>
<td>-1.47 [-2.28, -0.66]</td>
<td></td>
<td>+ + ? ? ? ? + +</td>
</tr>
<tr>
<td>Szucs 2012 (20)</td>
<td>-1.471 0.46</td>
<td>12</td>
<td>12</td>
<td>11.7%</td>
<td>-1.47 [-2.37, -0.57]</td>
<td></td>
<td>+ + ? ? ? ? + ?</td>
</tr>
<tr>
<td>Yun 2009 (21)</td>
<td>-1.997 0.387</td>
<td>20</td>
<td>20</td>
<td>12.4%</td>
<td>-2.00 [-2.76, -1.24]</td>
<td></td>
<td>++ + + + + + +</td>
</tr>
</tbody>
</table>

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.
8 trials with 373 participants,

<table>
<thead>
<tr>
<th>Study or Subgroup</th>
<th>Nerve block</th>
<th>Control (no block)</th>
<th>Risk Ratio M-H, Fixed, 95% CI</th>
<th>Risk of Bias</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Events</td>
<td>Total</td>
<td>Events</td>
<td>Total</td>
</tr>
<tr>
<td>Fletcher 2003 (32)</td>
<td>2</td>
<td>24</td>
<td>4</td>
<td>26</td>
</tr>
<tr>
<td>Haddad 1995 (33)</td>
<td>2</td>
<td>24</td>
<td>9</td>
<td>21</td>
</tr>
<tr>
<td>White 1980 (29)</td>
<td>3</td>
<td>16</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>Total (95% CI)</td>
<td>64</td>
<td>67</td>
<td>100.0%</td>
<td>0.41</td>
</tr>
<tr>
<td>Total events</td>
<td>7</td>
<td>18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**No difference in mortality!**
Peripheral Nerve Blocks for Hip Fractures: A Cochrane Review

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

8 trials with 373 participants,

<table>
<thead>
<tr>
<th>Table. Peripheral Nerve Blocks for Hip Fracture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcomes</strong></td>
</tr>
<tr>
<td><strong>Illustative Comparative Risks (95% CI)</strong></td>
</tr>
<tr>
<td><strong>Assumed Risk</strong></td>
</tr>
<tr>
<td>Pain on movement at 30 min after block placement</td>
</tr>
<tr>
<td>Follow-up: 20–30 min</td>
</tr>
<tr>
<td>Acute confusional state</td>
</tr>
<tr>
<td>198 per 1000 Low</td>
</tr>
<tr>
<td>150 per 1000 High</td>
</tr>
<tr>
<td>250 per 1000 Low</td>
</tr>
<tr>
<td>Myocardial ischemia</td>
</tr>
<tr>
<td>500 per 1000 Low</td>
</tr>
<tr>
<td>100 per 1000 High</td>
</tr>
<tr>
<td>500 per 1000 High</td>
</tr>
<tr>
<td>Pneumonia</td>
</tr>
<tr>
<td>269 per 1000 Low</td>
</tr>
<tr>
<td>50 per 1000 High</td>
</tr>
<tr>
<td>200 per 1000 High</td>
</tr>
<tr>
<td>Death Follow-up: 0–6 mo</td>
</tr>
<tr>
<td>98 per 1000 Low</td>
</tr>
<tr>
<td>25 per 1000 High</td>
</tr>
<tr>
<td>150 per 1000 High</td>
</tr>
<tr>
<td>Time to first mobilization</td>
</tr>
<tr>
<td>Cost of analgesic regimens for single-shot blocks</td>
</tr>
</tbody>
</table>
• Trauma (hip/shoulder): emergency physicians or nurses!
• Epidurals / spinals by non-anesthesiologists.
• Enhanced recovery.
• => Protection of profession.
• => Quality ?
• => Catheter based techniques.
• => Management of complications.
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 Meirman, Luc Sermeus.


BSAR-APSAR board : Stefaan Carlier, Eric Deflandre, Erika Slock, Guy Bergiers, Gilbert Bejani, René Heylen, Dirk Himpe, Jan-Paul Mulier, Philippe Dewilde, Gabriel Barthelemy, Jan Verbeke, Francis Ryckaert, Richard Coulie, Jean-Luc Demeere.
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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The 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.
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 physicians 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