



Guideline for health practitioners administering local anaesthesia

Background Paper

1. Purpose of review

Local anaesthesia, in the form of topical anaesthesia, field infiltration or peripheral nerve block (such as digital nerve block) is commonly employed for medical, dental and surgical procedures by a range of health practitioners with diverse qualifications and training, including specialist anaesthetists and specialist pain medicine physicians, other medical practitioners, dentists, podiatrists and nurses.

The 2004 version of *PS37 Statement on Local Anaesthesia and Allied Health Professionals* acknowledged the diverse range of health practitioners administering local anaesthesia, the training required, the need for consideration of alternative anaesthetic techniques and the need for continuing medical management where relevant.

Since 2004, there have been many changes to the regulatory environment for health practitioners in Australia and New Zealand. A review of this document to create a more comprehensive “guideline” was therefore warranted. As no other ANZCA professional document specifically addresses the use of local anaesthesia by medical practitioners, the scope of the revision was extended to the practice of all health practitioners (and not allied health practitioners alone).

The goal of the revised document, therefore, is to support uniform standards for the administration of local anaesthesia for medical, dental and surgical procedures by all health practitioners in Australia and New Zealand.

2. Background

This professional document is intended to apply to all local anaesthetic techniques, including topical anaesthesia, field infiltration and peripheral nerve block (such as digital nerve block). This document is not intended to apply to orbital blocks, major regional anaesthesia and analgesia techniques, which are the subject of other professional documents (see *PS03 Guidelines for the Management of Major Regional Analgesia* and *PS55 Recommendations on Minimum Facilities for Safe Administration of Anaesthesia in Operating Suites and Other Anaesthetising Locations*).

If sedation and/or analgesia, major regional anaesthesia or analgesia including local anaesthesia infusions, or general anaesthesia are co-administered with local anaesthesia, then the standards associated with the latter techniques apply (see *PS03 Guidelines for the Management of Major Regional Analgesia*, *PS09 Guidelines on Sedation and/or Analgesia for Diagnostic and Interventional Medical, Dental or Surgical Procedures* and *PS55 Recommendations on Minimum Facilities for Safe Administration of Anaesthesia in Operating Suites and Other Anaesthetising Locations*).

The principal difficulties or complications arising before, during or after local anaesthesia for medical, dental and surgical procedures include:

2.1 Local anaesthesia inadequate for the procedure

Pre-procedure assessment and intra-procedure monitoring should identify patients for whom local anaesthesia alone is inadequate. Proper pre-procedure assessment will reduce the need for urgent and unplanned changes to the anaesthetic plan, including high doses of local anaesthetic agents and co-administration of sedation and/or analgesia, major regional anaesthesia or general anaesthesia.

2.2 Local anaesthetic toxicity

Pre-procedure assessment should identify the local anaesthetic agent and dose that are suitable for the procedure and the patient, with due consideration of the patient's age and weight. The minimum effective dose of local anaesthetic should be chosen. Intra-procedure monitoring should identify patients with signs of local anaesthetic toxicity. The early symptoms and signs may be obtained from history or clinical observation of the patient. The health practitioner administering local anaesthesia should, at a minimum, be trained and certified competent in basic life support, for the treatment of local anaesthetic toxicity.

2.3 Systemic injection or absorption of vasoconstrictors

Pre-procedure assessment should identify patients particularly at risk of complications arising from the inadvertent direct injection or absorption of vasoconstrictors. The minimum effective dose of vasoconstrictor should be chosen. Intra-procedure monitoring should identify patients with signs of excessive systemic vasoconstrictor effect. The early symptoms and signs may be obtained from history and clinical examination of the patient. The health practitioner administering local anaesthesia should, at a minimum, be trained and certified competent in basic life support, for the treatment of local anaesthetic toxicity.

3. Summary

Local anaesthesia is commonly employed for medical, dental and surgical procedures by a range of health practitioners. The goal of this revised document is to support uniform standards for the administration of local anaesthesia for medical, dental and surgical procedures by all health practitioners in Australia and New Zealand.

Related ANZCA documents

PS03 Guidelines for the Management of Major Regional Analgesia

PS09 Guidelines on Sedation and/or Analgesia for Diagnostic and Interventional Medical, Dental or Surgical Procedures

PS18 Recommendations on Monitoring During Anaesthesia

PS26 Guidelines on Consent for Anaesthesia or Sedation

Process of document review

The document development group comprised:

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Dr Kerry Brandis, FANZCA, Councillor
Dr Peter Roessler, FANZCA, Director of Professional Affairs (Professional Documents)

The following were also consulted:

ANZCA national/regional committees
Faculty of Pain Medicine Board
ANZCA Trainee Committee
Anaesthetists in Management Special Interest Group (SIG)
Day Care Anaesthesia SIG
Perioperative Medicine SIG
Regional Anaesthesia SIG
Simulation and Skills Training SIG

A revised version of PS37 was promulgated in 2012 for a pilot phase, during which further feedback was sought with a view to producing a definitive version in 2013. No significant amendments to the document were considered necessary at this time.

Professional documents of the Australian and New Zealand College of Anaesthetists (ANZCA) are intended to apply wherever anaesthesia is administered and perioperative medicine practised within Australia and New Zealand. It is the responsibility of each practitioner to have express regard to the particular circumstances of each case, and the application of these ANZCA documents in each case. It is recognised that there may be exceptional situations (for example, some emergencies) in which the interests of patients override the requirement for compliance with some or all of these ANZCA documents. Each document is prepared in the context of the entire body of the college's professional documents, and should be interpreted in this way.

ANZCA professional documents are reviewed from time to time, and it is the responsibility of each practitioner to ensure that he or she has obtained the current version which is available from the college website (www.anzca.edu.au). The professional documents have been prepared having regard to the information available at the time of their preparation, and practitioners should therefore take into account any information that may have been published or has become available subsequently.

Whilst ANZCA endeavours to ensure that its professional documents are as current as possible at the time of their preparation, it takes no responsibility for matters arising from changed circumstances or information or material which may have become available subsequently.

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