



Short title: Local anaesthesia

1. Purpose of these guidelines

The Australian and New Zealand College of Anaesthetists (ANZCA) recognises that health practitioners with diverse qualifications and training are administering local anaesthesia for diagnostic and interventional medical, dental and surgical procedures. ANZCA has provided these guidelines with the goal of supporting safe and high quality local anaesthesia by all health practitioners.

2. Scope of this document

- 2.1 This document is intended to apply whenever local anaesthesia is administered. This document addresses pertinent issues for all health practitioners involved in such activities.
- 2.2 This document does not apply to situations in which local anaesthesia is co-administered with sedation and/or analgesia, major regional anaesthesia/analgesia, orbital blocks or general anaesthesia. In these situations, the standards outlined in the relevant college professional documents apply (see college professional documents *PG03(A) Guideline for the management of major regional analgesia*, *PG09(G) Guideline on sedation and/or analgesia for diagnostic and interventional medical, dental or surgical procedures* and *PS55(A) Position statement on minimum facilities for safe administration of anaesthesia in operating suites and other anaesthetising locations*).

3. Definition

Local anaesthesia is the reduction or elimination of pain perception by drugs, which act locally to interfere with nerve conduction. Local anaesthetic drugs may be administered topically and/or by injection, either as field infiltration or peripheral nerve block (such as digital nerve block).

4. Aims and risks of local anaesthesia

- 4.1 The aims of local anaesthesia are to facilitate completion of the planned procedure without compromising patient safety.
- 4.2 Risks of local anaesthesia include those related to the local anaesthetic drugs (for example, local anesthetic toxicity, allergic reaction), co-administered vasoconstrictors (for example, tachycardia, tachyarrhythmia or hypertension due to systemic absorption) or administration technique (for example, pain on injection, damage to nerves and/or adjacent structures).

5. Patient preparation

- 5.1 Prior to the procedure, the health practitioner performing the procedure should provide the patient with information about the nature and risks of the procedure, preparation instructions and what to expect during and after the procedure.

- 5.2 The respective health practitioner should obtain informed consent for local anaesthesia and the procedure from the patient, in accordance with applicable legislation (see college professional document *PS26(A) Position statement on informed consent for anaesthesia or sedation*).

6. Patient assessment

- 6.1 All patients should be assessed by the health practitioner administering local anaesthesia before their procedure. Assessment should include:
- 6.1.1 Details of the patient's age and weight, the current problem, co-existing conditions and past medical history, current medications (including non-prescribed medications) and allergies.
 - 6.1.2 Examination relevant to the current problem, and other systems as indicated by the history.
 - 6.1.3 Results of relevant investigations (if applicable).
- 6.2 This assessment should identify those patients at increased risk of cardiovascular, respiratory or airway compromise during local anaesthesia, and those who may not tolerate the procedure under local anaesthesia alone. In such cases, an appropriately qualified medical or dental practitioner who is credentialed in the administration of sedation and/or analgesia, major regional anaesthesia, and/or general anaesthesia should be present to care for the patient.

7. Staffing

- 7.1 If the same health practitioner is administering local anaesthesia and performing the procedure, an appropriately trained assistant may be required for monitoring the patient. This depends on the nature of the procedure and the local anaesthesia used.

8. Facilities and equipment

- 8.1 The location in which the procedure is performed should be equipped to maintain basic life support until more specialised help, equipment and drugs become available. A means of summoning emergency assistance should always be available.
- 8.2 Depending on the extent of the procedure and local anaesthesia planned, facilities and equipment required may include:
- 8.2.1 Adequate room to perform resuscitation should this prove necessary.
 - 8.2.2 Appropriate lighting.
 - 8.2.3 A supply of oxygen and suitable devices for the administration of oxygen to a spontaneously breathing patient.
 - 8.2.4 A means of inflating the lungs with oxygen (for example, a self-inflating bag and mask).
 - 8.2.5 A sphygmomanometer or other device for measuring blood pressure.

9. Technique and monitoring

- 9.1 The doses of local anaesthetic and vasoconstrictor drugs should be kept to the minimum required for patient comfort, particularly for those patients at increased risk of toxicity, such as children and the elderly.
- 9.2 During local anaesthesia alone, the principal means of monitoring will be continuous observation and verbal communication with the patient. Loss of patient response to stimulation or verbal commands indicates a likelihood of loss of airway reflexes, or respiratory and/or cardiovascular depression. In patients at higher risk of complications, monitoring by a health practitioner other than the proceduralist may be required.
- 9.3 According to the clinical status of the patient, other monitors may be required (see college professional document *PG18(A) Guideline on monitoring during anaesthesia*).

10. Documentation

- 10.1 The clinical record should include the names of the health practitioners administering local anaesthesia and performing the procedure, with documentation of relevant history, examination and investigation findings.
- 10.2 The health practitioner administering the local anaesthesia should maintain a written record of the drug doses and the timing of administration, as a part of the patient's records. Entries should be made as near to the time of administration of the drugs as possible. This record should also note the readings from any monitored variables, if applicable.
- 10.3 The health practitioner administering the local anaesthesia should advise the patient (in writing) of any difficulties or complications with local anaesthesia.

11. Recovery and discharge

- 11.1 Consideration should be given to the need for post-procedure observation.
- 11.2 Discharge of the patient should be authorised by the health practitioner who administered the local anaesthesia, or another appropriately qualified health practitioner. The patient should receive instructions about pain relief, care of the operative site and resumption of normal activities.
- 11.3 A system should be in place to enable safe transfer of the patient to appropriate medical care should the need arise.

12. Training in local anaesthesia for non-anaesthetist medical and other health practitioners

- 12.1 Health practitioners who administer local anaesthesia should be appropriately trained in the use of local anaesthetic agents, vasoconstrictor agents and relevant local anaesthetic techniques. They require sufficient training to be able to:
 - 12.1.1 Understand the relevant anatomy of the site of injection and the actions of the drugs being administered, and modify the technique to suit patients of different ages and weights, and any concurrent drug therapy or disease processes.
 - 12.1.2 Monitor the patient's level of consciousness and cardiorespiratory status.

- 12.1.3 Detect and manage complications arising from local anaesthesia, including those requiring cardiopulmonary resuscitation.
- 12.2 The course of instruction should include the detailed pharmacology of the drugs and techniques used with emphasis on the complications due to the drugs or injections.
- 12.3 Training and current certified competence in cardiopulmonary resuscitation is essential.
- 12.4 Continuing professional development appropriate to the health practitioner's practice should be undertaken by all health practitioners administering local anaesthesia.

This document is accompanied by a background paper (PG37(A)BP) which provides more detailed information regarding the rationale and interpretation of the Guideline.

Related ANZCA documents

PG03(A) Guideline for the management of major regional analgesia

PG09(G) Guideline on sedation and/or analgesia for diagnostic and interventional medical, dental or surgical procedures

PG18(A) Guideline on monitoring during anaesthesia

PS26(A) Position statement on informed consent for anaesthesia or sedation

PS55(A) Position statement on minimum facilities for safe administration of anaesthesia in operating suites and other anaesthetising locations

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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.

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Promulgated: 1998
Reviewed: 2004, 2012, 2013
Current document: November 2013

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