

# JCCA



## Curriculum for General Practitioner Anaesthesia

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6TH EDITION – 2020

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The Joint Consultative Committee on Anaesthesia (JCCA) is a tripartite committee of the Australian and New Zealand College of Anaesthetists (ANZCA), the Royal Australian College of General Practitioners (RACGP) and the Australian College of Rural and Remote Medicine (ACRRM)



Australian College of  
Rural & Remote Medicine  
WORLD LEADERS IN RURAL PRACTICE



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# Introduction

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The Joint Consultative Committee on Anaesthesia (JCCA) is a tripartite committee with representatives from the Australian and New Zealand College of Anaesthetists (ANZCA), The Royal Australian College of General Practitioners (RACGP) and the Australian College of Rural and Remote Medicine (ACRRM).

The JCCA is in part based on the following principles:

- » There are large areas of Australia where there will always be a requirement for general practitioners (GPs) to be administering anaesthesia (mainly small rural towns and provincial cities).
- » GPs providing anaesthesia services must have appropriate training and must be providing safe anaesthesia. There are some situations where general practitioners providing anaesthesia services may and should work in cooperation with specialist anaesthetists.
- » GPs providing anaesthesia services must maintain their skills and knowledge through a commitment to, and participation in ongoing anaesthesia continuing professional development (CPD).

The JCCA supervises and examines GP registrars from the RACGP and ACRRM who are completing a 12 month Advanced Rural Skills Training (ARST) post or Advanced Specialised Training (AST) post in anaesthesia. This training aims to broaden the skills and capacity beyond the standard scope of general practice training to meet the community needs of the diverse Australian geography and population distribution.

The JCCA's CPD Standard enables general practitioners providing anaesthesia services in rural general practice to maintain their skills and knowledge in anaesthesia. Whilst the JCCA cannot mandate this program, it recommends that all general practitioners providing anaesthesia services complete CPD to the Standard defined in the program as administered by the CPD/PDP programs of the three colleges. The details are in the links below:

- » [ACRRM Maintenance of Professional Standards \(MOPS\) Anaesthetics](#)
- » [ANZCA Continuing Professional Development \(CPD\) Program](#)
- » [RACGP CPD Program](#) Page 49 details for GPs with specific requirements including GP Anaesthesia.

Participation in CPD is mandated in medical registration with AHPRA.

The JCCA Curriculum for General Practitioner Anaesthesia 6th Edition, 2020 replaces the JCCA Curriculum for general practitioner anaesthesia , Fifth Edition, 2018.

The JCCA Curriculum for General Practitioner Anaesthesia, Sixth Edition 2020 is issued under the crests of the three Colleges reflecting the input, membership and authority of the JCCA. This curriculum is the academic basis for training of general practitioners who wish to provide anaesthesia services. A doctor undertaking this training is hereinafter referred to as a JCCA registrar.

As from 1 January 2018 the JCCA's letter of satisfactory completion of training is expected to be held in conjunction with active participation in an anaesthesia CPD program, to be assessed by credentialing committees.

## Scope of Practice

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The Scope of Practice for general practitioners providing anaesthesia service will always be dependent upon the knowledge, skills and capabilities of the individual practitioner and subject to local infrastructure and jurisdictional credentialing.

The extent of an individual anaesthetist's clinical practice within a particular organisation is determined based upon their credentials, competence, performance and professional suitability, the needs of the organisation and its ability to support their clinical practice. Scope of practice can change over time with factors such as currency of practice or introduction of new technologies. It can also change between institutions depending on the capability of the institution.<sup>(1)</sup>

In the context of rural and remote medicine, general practitioners providing anaesthesia service are called upon to provide a range of services to meet the individual needs of their communities.

As a general guideline a rural general practitioner providing anaesthesia services should only be considering patients who are in the lower risk categories for elective procedures. A supportive and collegiate relationship with Specialist Anaesthetist colleagues is strongly encouraged to enable further discussion of issues or suitability of a case for a GP Anaesthetist. Ideally this will be someone from a regional referral hospital to assist strengthening collegial co-operation and support in the local area.

Scope of practice issues can often be resolved when practitioners ask themselves the question:

***'Do I have the necessary knowledge, skills and assistance to care for this patient and manage any complications that might arise in the context of this healthcare facility?'***

If the answer is no and the care is not urgently required, then the patient should be referred. If the care is urgently required, and delay would result in harm, then the practitioner should utilise the skills they have to provide care to the best of their ability. Consideration should be given to seeking the assistance of another colleague if available as well as the use of remote resources for advice.<sup>(1)</sup>

The American Society of Anesthesiologists grading system is a well known classification to delineate peri-operative risk. It has definitions that are open to interpretation; however over several decades has been shown to correlate with peri-operative risk and surgical outcomes.

<https://www.asahq.org/standards-and-guidelines/asa-physical-status-classification-system>

1. Adapted from [ANZCA PS29 Guideline for Provision of Anaesthesia Care to Children](#) and [ANZCA PS02 Statement on Credentialling and Defining the Scope of Clinical Practice in Anaesthesia](#)

# Training posts, supervision and duration

Information in this section should be read in conjunction with the JCCA Training Regulations document.

The JCCA have designed the curriculum to be taught primarily in regional hospital posts which are accredited for ANZCA training. These are likely to be hospitals with a focus on secondary rather than tertiary referral, and with suitable facilities and staffing in anaesthesia. Teaching staff are expected to be selected from specialist anaesthesia staff and rural general practitioner anaesthetists associated with the training hospital. The JCCA views as essential that registrars are exposed to the teaching of at least two specialist anaesthetists during the training term.

## Training posts

Training posts are available in all states and territories of Australia. Hospitals that are accredited for training by ANZCA can be automatically accredited for JCCA training following agreement by the Director of Anaesthesia that the training will be general practice oriented. Smaller regional hospitals have been accredited for training by the JCCA. Hospitals accredited for a provisional Fellowship year by ANZCA may be suitable for JCCA accreditation on a case by case basis.

Hospitals wishing for suitable posts to be accredited for JCCA training must apply via the JCCA Secretariat and a decision will be made by the committee to accredit or make an accreditation visit to the hospital.

Clinical simulation has become an important component of medical training. It is highly recommended that the JCCA registrars are given the opportunity to include simulation experiences while completing the JCCA curriculum requirements.

## Supervision

Each JCCA post should have two nominated supervisors, one of whom is a specialist anaesthetist, who *may* be the Head of Department or Training Supervisor, and the other a non-specialist or general practitioner providing an anaesthesia service nominated by the hospital. It is recognised that a GP anaesthetist (GPA) may not be readily accessible in some training locations in which case a second specialist is acceptable; in this instance the registrar having a GP mentor is even more important. It is also strongly recommended that all JCCA registrars have a mentor relationship with a general practitioner providing anaesthesia services who is not directly involved with their supervision and training. This GP's role is to provide the JCCA registrar with a professional mentor with whom they can freely discuss matters.

## Duration

The curriculum is designed for a 12 month full-time continuous training post in anaesthesia (including appropriate leave) to acquire the skills necessary for competent independent anaesthesia practice. This training period must not include more than six weeks equivalent of intensive care medicine training without prior written approval of the JCCA. During the training period, the JCCA registrar is expected to take on the roles and responsibilities of an anaesthesia registrar under the direction of the head of unit or anaesthetic supervisor.

## Overseas training post

The JCCA will consider overseas training posts and qualifications. However, these are reviewed on a case by case basis by the committee. A JCCA registrar wishing to undertake training overseas must first contact the JCCA Secretariat for further details. The JCCA registrar will also be required to submit a detailed application covering all aspects of the training post.

# Prerequisites and assumed prior experience

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## Prerequisite

The JCCA registrar must satisfy the following criteria:

1. JCCA training may be undertaken following Core Clinical/Hospital Training or after some or all of Primary Rural and Remote/General Practice training has been completed.

When JCCA training is undertaken following 12 months or more training in a rural general practice it provides the registrar with experience of the context of where and how the anaesthesia services will be provided.

When JCCA training is undertaken following core hospital training it provides the registrar with an opportunity to contribute to an anaesthetics roster in a rural hospital while training in a rural general practice.

Irrespective of the timing of JCCA training a prospective training plan is important to ensure once anaesthetic training is complete, that there are opportunities to continue to develop and maintain these skills. The JCCA has a [Return to work/upskilling policy](#) which applies to GPs who have not practised GP anaesthesia for two or more years.

2. Have successful completion of one of the following courses within the last four years:

- 0 Anaesthetic Crisis Resource Management (ACRM)
- 0 Emergency Life Support Course (ELS)
- 0 Rural Emergency Skills Training (REST)
- 0 Clinical Emergency Management Program (CEMP) Advanced
- 0 Emergency Management of Anaesthetics Crises Course (EMAC).

Other courses may be considered by the JCCA. For clarification JCCA registrars should contact the JCCA Secretariat prior to undertaking the course.

For JCCA registrars who have not completed an emergency medicine course prior to their training completion date, advice of a secure position in a future course is to be advised. The certificate of satisfactory completion of the course is to be supplied to the JCCA within two weeks of completion.

## Assumed prior experience

The JCCA registrar should satisfy the following criteria:

1. Demonstration of a commitment to rural general practice, including fellowship of one of the general practice colleges or registration as a general practice training registrar.
2. Development of a knowledge of anatomy, physiology, pharmacology and research appropriate for a resident medical officer in a department of anaesthesia
3. Competence in the following basic skills:
  - 0 history taking, physical examination and clinical assessment skills
  - 0 intravenous cannulation
  - 0 cardiopulmonary resuscitation.

## Learning outcomes

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The learning outcomes for Australian rural practice varies from working in a large regional town or small city with some tertiary support to a single doctor community which may be geographically isolated in extreme conditions. Some of these objectives are not exclusive to GP anaesthesia practice but are universal to any medical practice.

### Communication skills and the patient-doctor relationship

The JCCA registrar will be able to:

- » establish and utilise a comprehensive professional referral network
- » demonstrate an understanding of the physical and mental states which may influence conduct of anaesthesia
- » outline the influence of emotional, psychological and social factors on an individual's response to pain (acute and chronic)
- » demonstrate an ability to communicate and cooperate with a range of rural specialist anaesthetists in the provision of safe anaesthetic services
- » demonstrate an understanding of the emotional impact of patients undergoing surgery and provide supportive counselling
- » demonstrate an ability to communicate effectively with frightened and uncooperative adults and children.

### Applied professional knowledge and skills

The JCCA registrar will be able to:

- » develop the clinical skills required to competently manage safe anaesthesia practice in a rural GP setting
- » demonstrate confidence to make decisions and accept the outcomes of those decisions working within his/her own scope of practice
- » utilise a problem solving approach
- » demonstrate clinical skills required for appropriate pre-operative assessment and care of patients
- » identify features of the pre-operative assessment which will require specialist anaesthesia services and refer appropriately
- » use and maintain a range of equipment required for general anaesthesia and monitoring
- » induce and maintain unconsciousness and provide intra-operative analgesia
- » administer and reverse muscle relaxation safely
- » administer local, topical and regional anaesthesia
- » describe the principles of common or important operations requiring anaesthesia and their appropriateness in rural GP anaesthesia practice
- » provide post-anaesthesia care

- » demonstrate knowledge of, and ability to care for, all aspects of a patient's respiratory system, including recognition of problems, use of oxygen, ventilators and artificial airways
- » manage acute pain and chronic cancer and non-cancer pain
- » effectively manage patients of all ages suffering from cardiac or respiratory arrest» assess a patient's suitability for transportation
- » stabilise, support and organise safe transportation for the critically ill patient
- » demonstrate an ability to predict pre-operative, intra-operative and post-operative anaesthesia risks, consulting with a specialist anaesthetist and referring when necessary.

## Professional and ethical role

The JCCA registrar will be able to:

- » demonstrate an understanding of the particular need and difficulties in maintaining confidentiality in small communities
- » critically review relevant literature, analysing and utilising it appropriately in the workplace
- » develop skills in balancing the caseload and demands of working in isolation in a rural practice with social and personal responsibilities
- » develop an understanding of the principles of small business management appropriate to a rural general practice
- » demonstrate an ability to establish professional networks, organisations and utilise available rural resources and referral agencies
- » develop a commitment to continuing self-directed learning and professional development sufficient to provide quality anaesthesia care
- » demonstrate an attitude of adaptability to changes in anaesthetic practice relevant to safer rural anaesthesia
- » develop the appropriate skills for self-care and self-reliance
- » demonstrate awareness of current ANZCA standards for anaesthesia practice (College Professional Documents) and act in ways consistent with these standards
- » work effectively as part of a multidisciplinary team.

## Organisational and legal dimensions

The JCCA registrar will be able to:

- » outline legal responsibilities regarding notification of disease, birth, death and autopsy, and related documents
- » demonstrate his/her responsibility in relation to obtaining informed consent
- » demonstrate an understanding of the social/domestic pre-requisites for day only surgery.



## Areas of anaesthesia practice

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The following table covers a broad range of areas of anaesthesia practice in which the JCCA registrar should become involved. The list of topics is neither complete nor comprehensive, some parts will be exhaustively covered, and others will merely be touched upon.

While, under normal circumstances, it is expected that a JCCA registrar would gain experience in all of the listed areas, this curriculum is designed to be flexible to accommodate a different depth and extent of coverage. The determination of coverage should take place through a negotiated agreement between the registrar and the designated training post supervisors. The supervisors would usually be involved in the anaesthesia teaching program at the hospital.

The negotiation process should take into account:

- » the selection of a broad and representative set of common conditions likely to be encountered in the context of most rural general anaesthesia practice
- » the potential geographical location of the registrar and the perceived needs arising from that location (where this is known), and
- » the background and experience of the registrar.

The outcome of the negotiation process should be a written statement setting out proposed coverage of content for the year of study, which should be signed by the parties concerned. The content should be subject to periodic review. At the very least, reviews should take place three monthly. Reviews should take into account factors such as the workloads and clinical exposure of the units to which the registrar is attached, the changing interests of the registrar, and the strengths and limitations of the registrar's work in anaesthesia procedures.

## 6.1 PRE-OPERATIVE AND GENERAL MEDICAL CARE

Physical and mental states which influence conduct of pre operative anaesthesia	<ul style="list-style-type: none"> <li>» history taking, physical examination and relevant investigations</li> <li>» identification of suitable day surgery patients</li> <li>» patients unsuitable for GP anaesthesia</li> </ul>
Previous and family history	
Relevance of previous medical, surgical and anaesthetic events	<ul style="list-style-type: none"> <li>» significant features in the previous history, eg. failed intubation, anaphylaxis</li> <li>» family and genetic disorders</li> <li>» oesophageal reflux</li> </ul>
Clinical examination and investigation	
Significant symptoms and signs requiring further investigation	<ul style="list-style-type: none"> <li>» relevant history, eg. chest pain suggestive of ischaemic heart disease</li> <li>» physical signs, eg. prediction of difficult intubation</li> <li>» recent food and fluid ingestions</li> <li>» laboratory and radiological investigations</li> <li>» conditions requiring post-operative intensive care, eg. respiratory failure</li> </ul>
Post-operative pain relief methods	
Disease and drug therapy	<ul style="list-style-type: none"> <li>» the effect and treatment of surgical diseases on body systems</li> </ul>
The primary (surgical) conditions	<ul style="list-style-type: none"> <li>» effect of surgical illnesses and injuries on anaesthesia, operative and post-operative management</li> <li>» aetiology, natural history and effect of surgical illness relevant to rural anaesthesia practice</li> <li>» the effects of anaesthesia on the patient's condition and incidence of post-operative complications</li> <li>» urgency of surgery, preparation of patient, and suitability for transportation</li> <li>» preparation of patient for surgery with emphasis on resuscitation</li> </ul>
Intercurrent disease	<ul style="list-style-type: none"> <li>» local and general effects of relevant medical diseases</li> <li>» its relevance to case selection for rural GP anaesthesia, principles of management</li> <li>» principles of management</li> <li>» effect of anaesthesia and surgery on intercurrent disease</li> <li>» effect on anaesthesia</li> <li>» consultation with specialist anaesthetist in pre-operative preparations</li> </ul>
Drug therapy	<ul style="list-style-type: none"> <li>» physiological response to anaesthesia</li> <li>» principles of drug interactions</li> <li>» interactions between anaesthesia drugs, and drugs used in the treatment of disease</li> <li>» modification of existing drug therapy for anaesthesia and surgery</li> <li>» discussion of drug therapy modification, eg. stopping anticoagulation with the treating surgeon</li> </ul>

## 6.1 PRE-OPERATIVE AND GENERAL MEDICAL CARE

Assessing risk of anaesthesia and surgery	<ul style="list-style-type: none"> <li>» risks of anaesthesia and surgery relevant to the rural location</li> <li>» urgency of the surgery in relation to the risk of anaesthesia, eg. a higher anaesthesia risk may be accepted if surgery is life saving</li> <li>» prediction of pre-operative, intra-operative and post-operative anaesthesia risks, consulting and referring to a specialist anaesthetist if necessary</li> </ul>
Pre-operative medication	<ul style="list-style-type: none"> <li>» the emotional impact of patients undergoing surgery and provide supportive counselling</li> <li>» informed consent</li> <li>» pharmacology principles</li> <li>» administration objectives</li> </ul>
Day care surgery and anaesthesia	<ul style="list-style-type: none"> <li>» principles of selection of patients for day care surgery and anaesthesia</li> <li>» surgical procedures suitable for day care surgery</li> <li>» evaluating patients suitable for day care surgery</li> <li>» social/domestic pre-requisites for day care surgery</li> </ul>

## 6.2 CORE COMPETENCIES

Assessment and management of	<ul style="list-style-type: none"> <li>» Management of difficult airway, including CICO</li> <li>» Adult cardiac/ respiratory arrest</li> <li>» Anaphylaxis</li> <li>» Massive transfusion/ haemorrhage</li> <li>» Malignant hyperthermia</li> <li>» Laryngospasm</li> </ul>
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## 6.3 SPECIAL CONSIDERATIONS

<ul style="list-style-type: none"> <li>» managing obese patients</li> <li>» managing elderly patients</li> <li>» managing paediatric patients</li> <li>» cognitive impaired patients</li> <li>» previous cardiac stents</li> <li>» diabetic patients</li> <li>» obstructive sleep apnoea</li> </ul>	
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## 6.4 GENERAL ANAESTHESIA

Equipment for general anaesthesia and monitoring	<ul style="list-style-type: none"> <li>» range, function, clinical use and hazards of equipment</li> <li>» safety issues in the use and maintenance of equipment</li> <li>» choosing, assembling and using equipment, eg. systematic check of anaesthetic machine</li> <li>» balancing benefits of using particular items, eg. endotracheal tubes, against potential complications</li> <li>» requirements of, and skills for, equipment maintenance (as technical backup is often lacking in a rural hospital)</li> <li>» use of pulse oximetry, capnography, volatile agent monitoring, ECG monitor and non-invasive BP monitors</li> <li>» use and hazards of diathermy</li> </ul>
Narcosis and analgesia	<ul style="list-style-type: none"> <li>» induction of unconsciousness and sensory blockade</li> <li>» theory of mechanisms involved in narcosis, anaesthesia and sensory blockage</li> <li>» pharmacology of drugs used to modify consciousness, opioid drugs, sedatives, neuroleptics agents and tranquillisers as well as those used to provide sensory and reflex blockage</li> <li>» choice and administration of suitable drugs to induce and maintain unconsciousness and provide intra operative analgesia</li> <li>» factors involved in choice of agents for induction and maintenance of anaesthesia</li> <li>» patients' emotional response to induction</li> <li>» venepuncture, airway maintenance and tracheal intubation, including cricoid pressure and rapid sequence induction, and indications for the relevant techniques</li> <li>» failed intubation drill, particularly for obstetric anaesthesia</li> <li>» use of 'difficult airway' equipment, eg. bougies, alternative laryngoscopes or any other suitable equipment for unexpected difficult intubations</li> </ul>
Muscle relaxation	<ul style="list-style-type: none"> <li>» the mechanisms of muscle tone</li> <li>» the pharmacology of muscle relaxants</li> <li>» safe provision and reversal of muscle relaxation</li> <li>» physiology of muscle relaxation</li> <li>» indications and complications</li> <li>» provision of satisfactory relaxation</li> <li>» inappropriate response and plan of management</li> <li>» understanding of the principles, and use of a nerve stimulator</li> </ul>

## 6.5 LOCAL AND CONDUCTION ANAESTHESIA

Physiology, anatomy and pharmacology	<ul style="list-style-type: none"> <li>» physiology and anatomy relevant to local, topical and conduction anaesthesia</li> <li>» pharmacology of local anaesthetic drugs</li> <li>» indications for different drugs</li> <li>» management of overdose or abnormal response</li> </ul>
The practice of local, topical and regional anaesthesia	<ul style="list-style-type: none"> <li>» techniques, effects and complications and their management</li> <li>» techniques of subarachnoid anaesthesia and commonly used nerve blocks, eg. axillary and ischaemic arm blocks</li> <li>» physiological responses to subarachnoid and epidural blockade</li> <li>» monitoring techniques for use in local and conduction anaesthesia</li> <li>» management of immediate and delayed complications</li> <li>» use of sedative and neuroleptic drugs in conjunction with local and conduction anaesthesia</li> <li>» implications of general anaesthesia in conjunction with local and conduction anaesthesia</li> </ul>
JCCA policy on epidural skills	The JCCA believes that it is difficult to conduct obstetric anaesthesia practice without epidural skills. It is desirable that JCCA registrars acquire these skills during their training, but the committee recognises that this is not always possible. Registrars will be specifically asked about epidural skills and experience in their formal assessment.

## 6.6 CARE RELATED TO SURGERY AND ANAESTHESIA

Interpersonal management	<ul style="list-style-type: none"> <li>» effective communication with adults and children</li> <li>» emotional reactions of patients to hospitalisation, surgery and anaesthesia</li> <li>» effect of emotional state on response to anaesthesia and surgery</li> <li>» communication with frightened or uncooperative adults, children and their carers</li> <li>» effect of illness and separation on patients' relatives and carers</li> </ul>
Specialist anaesthetists	<ul style="list-style-type: none"> <li>» communication, support and cooperation with, and support from, rural specialist anaesthetists</li> </ul>
Rural GP anaesthetists	<ul style="list-style-type: none"> <li>» establishment of cooperative GP anaesthetic networks</li> <li>» maintenance of quality anaesthetic services before commercialism</li> </ul>
Staff and patient safety	<ul style="list-style-type: none"> <li>» hazards of the operating theatre</li> <li>» hazards of infection, (eg. HIV, hepatitis B, C, or other blood borne infections)</li> <li>» physical injury, electric shock, radiation, surgical and anaesthetic equipment and environmental pollution</li> <li>» hazards of cross infection, patient posture, and immobility</li> <li>» plans to avoid hazards</li> </ul>

## 6.7 SPECIFIC APPLICATIONS OF CARE DURING SURGERY AND ANAESTHESIA

- » Principles of common or important operations requiring anaesthesia
- » Whether the effect on the patient and conduct of anaesthesia is appropriate for rural GP anaesthesia
- » Particular problems, associated with specific procedures and methods to overcome them
- » Administration of appropriate IV fluids during operations

## 6.8 EXAMPLES OF SPECIFIC APPLICATION OF CARE DURING SURGERY AND ANAESTHESIA

Neurosurgery	<ul style="list-style-type: none"><li>» recognising that elective neurosurgery is inappropriate but emergency cases may arise</li><li>» control of intracranial pressure</li><li>» signs of raised pressure</li><li>» anaesthesia techniques which minimise untoward changes</li></ul>
Thoracic surgery	<ul style="list-style-type: none"><li>» recognising that elective cases are inappropriate but emergency cases may arise</li><li>» changes which follow open surgical pneumothorax</li><li>» plan for control of secretions and air leak</li></ul>

## 6.8 EXAMPLES OF SPECIFIC APPLICATION OF CARE DURING SURGERY AND ANAESTHESIA

Paediatric surgery and JCCA policy on paediatric anaesthesia

- » principles of paediatric anaesthesia
- » modification of apparatus and technique

The JCCA believes that competency in paediatric anaesthetics is essential for the practice of anaesthesia in rural and remote areas. As such, it is strongly desirable that all registrars undertake adequate training in paediatric anaesthesia and it is anticipated that most registrars will achieve the minimum caseload for endorsement to the age of five years and above. The JCCA recommends that registrars undertake a period of training in a paediatric anaesthesia unit if there is inadequate exposure at their primary training location.

The JCCA endorses [ANZCA Policy Document PS29](#) acknowledging that safe practice will involve consideration of all the health professionals involved, the patient and the institution in which procedures are proposed to occur.

The two levels for clinical scope for endorsement for general practitioners providing anaesthesia services in the area of paediatric anaesthetics for GPAs are: <sup>1</sup>

1. Endorsement to the age of five years and above.
  - i. The registrar must have: undertaken a minimum of 30 cases below the age of 10 years prior to the examination.
  - ii. A training supervisor's endorsement that the JCCA registrar can provide independent anaesthesia in this age group.

Where these requirements are not met and a candidate is endorsed for anaesthesia above the age of 10 years only, a tertiary paediatric attachment is strongly encouraged to allow later endorsement to the younger age.
2. Endorsement for an age limit of 3–5 years. The registrar must have:
  - i. undertaken a further 20 cases in this age bracket 3-5 years (minimum of 50 paediatric cases total)
  - ii. a satisfactory training supervisors' report, indicating competency in paediatric anaesthesia
3. When a previous JCCA registrar completes the paediatric requirement subsequent to initial accreditation and seeks endorsement to a younger age, the following is required.
  - i. Documented volume of practice of numbers of cases within a two year period (30 patients below 10 years for endorsement to 5 years and above, with an additional 20 patients in age group 3 to 5 years for endorsement to age 3 years and above.
  - ii. Written endorsement by a JCCA Supervisor that the registrar has reached the required standard for independent practice in the age group of patients.

Ongoing competency in paediatric anaesthesia requires ongoing volume of practice. This will be reviewed by credentialing committees. Failure to provide evidence of ongoing volume of practice, CPD including paediatric emergency skills may result in reclassification of paediatric endorsement.

Paediatric anaesthesia training, initial credentialing and ongoing credentialing are local jurisdictional matters with varying requirements and minimum age restrictions, which are not governed by the Terms of Reference of the JCCA.

<sup>1</sup> If the registrar is finding it difficult to obtain adequate exposure to paediatric anaesthetics, they should seek advice and assistance from their training college.

Obstetric anaesthesia and analgesia	<ul style="list-style-type: none"> <li>» important physical and emotional changes in pregnant women, relevant to anaesthesia</li> <li>» analgesic and anaesthetic factors which influence fetal wellbeing</li> <li>» analgesic techniques in obstetrics</li> <li>» neonatal resuscitation</li> </ul>
Other procedures	<ul style="list-style-type: none"> <li>» similar considerations, as above, to patients undergoing other procedures including, abdominal surgery, dentistry or oral surgery, ENT surgery, genito-urinary surgery, gynaecology, plastic surgery, orthopaedic surgery and ophthalmic surgery</li> </ul>

## 6.9 POST-ANAESTHESIA CARE

Natural history of post-anaesthesia recovery	<ul style="list-style-type: none"> <li>» emotional impact of recovery phase</li> <li>» causes of post-operative discomfort (including pain)</li> <li>» criteria for discharge from recovery room</li> </ul>
Clinical assessment	<ul style="list-style-type: none"> <li>» aetiology, symptoms, signs, effects and management of post-anaesthesia complications</li> <li>» disturbances of physiology especially airway, respiration and circulation</li> <li>» complications identified in the recovery room</li> <li>» management of unconscious patients, especially maintaining an unobstructed airway</li> </ul>

## 6.10 RESPIRATORY CARE (INCLUDING PRE-, INTRA-, POST-ANAESTHESIA AND INTENSIVE CARE)

Respiratory system	<ul style="list-style-type: none"> <li>» control and function of the respiratory system</li> <li>» symptoms and signs of respiratory failure</li> <li>» basic respiratory physiology</li> <li>» common respiratory problems and their management</li> <li>» interpretation of radiography and lung function testing</li> <li>» mechanisms of changes in blood gases and capnographs</li> </ul>
Oxygen therapy	<ul style="list-style-type: none"> <li>» pathophysiology of hypoxaemia</li> <li>» indications for oxygen therapy</li> <li>» hazards in respiratory failure and prematurity</li> <li>» oximetry</li> <li>» indications for hyperbaric oxygen therapy</li> </ul>
General care	<ul style="list-style-type: none"> <li>» clearing respiratory secretions</li> <li>» physiotherapy</li> <li>» suction and humidification</li> </ul>
Ventilators	<ul style="list-style-type: none"> <li>» the principles and practice of respiratory support and ventilation</li> <li>» principles of, and indications for, mechanical ventilation</li> <li>» safety features</li> <li>» methods of monitoring</li> <li>» choosing and using ventilators in patients with varying degrees of resistance and compliance</li> <li>» use of ventilators in theatre, intensive care and during or awaiting transport</li> </ul>
The artificial airway	<ul style="list-style-type: none"> <li>» indications, management and complications for artificial airways</li> <li>» advantages and disadvantages of each type</li> <li>» insertion of pharyngeal airways, laryngeal masks, oral and nasal tracheal tubes and tracheostomy</li> <li>» management of immediate and delayed complications of an artificial airway, eg. laryngeal spasm</li> </ul>



## 6.11 THE MANAGEMENT OF PAIN

Physiological and anatomical basis of pain	
Effective pain management in modifying surgical stress response	
Inter-patient variability in analgesic requirement	
Opioid and non-opioid agents which modify pain conduction	
Patient controlled infusion devices	
Supplementation of post-operative analgesia with regional techniques, eg. epidural analgesia, nerve block, if available	
Management of chronic non cancer pain	<ul style="list-style-type: none"> <li>» influence of emotional, psychological and social factors on an individual's pain response</li> <li>» visual analogue scores for quantifying pain</li> <li>» effect of psychosocial issues</li> <li>» management of chronic pain using non-opioid medication</li> <li>» pain clinic services</li> </ul>
Management of chronic cancer pain	<ul style="list-style-type: none"> <li>» anatomical and pathological mechanisms</li> <li>» psychological effects</li> <li>» therapeutic needs</li> <li>» assessment for pain clinic referral</li> <li>» common methods of treating pain, drugs used, mode of administration, eg. subcutaneous infusion</li> <li>» empathy and communication skills with patients and family</li> </ul>

## 6.12 RESUSCITATION AND EMERGENCY CARE

Cardiopulmonary resuscitation	<ul style="list-style-type: none"> <li>» management of cardiac or respiratory arrest in patients of all ages</li> <li>» causes, symptoms and signs of impending cardiac or respiratory arrest</li> <li>» airway management</li> <li>» expired air ventilation</li> <li>» external cardiac compression on patients and models</li> <li>» drugs used in acute clinical situations</li> <li>» defibrillator</li> </ul>
Transport of critically ill patients	<ul style="list-style-type: none"> <li>» the problems and dangers of transport of critically ill patients</li> <li>» criteria for stabilisation and support of critically ill patients at local hospital before transport or retrieval is arranged</li> <li>» principles underlying safe transport of critically ill patients</li> <li>» communication and cooperation with retrieval teams</li> </ul>

# Assessment

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## Assessment principles

This curriculum uses a combination of formative and summative assessment. The purpose of assessment, particularly the formative, is supervisory as well as judgmental.

The assessment should be conducted by the designated specialist and non-specialist anaesthetist supervisors, who should be appointed at the beginning of the registrars' programs and continue their involvement with the registrars under supervision for the duration of the training period. There is provision for external moderation of components of the assessment, if circumstances require. This applies to the case commentaries and research project.

## Logbook

All JCCA registrars will be required to maintain a logbook throughout their training. This logbook will be needed to be reviewed by the supervisor at regular times throughout the training term.

## Formative assessment

Regular discussions should take place between the registrar and supervisors using the diaries/logbooks containing notes of the registrar's work. The contents of the diaries/logbooks should be checked against the lists of topics derived from the negotiation of content. These discussions should ideally take place on a weekly basis and brief annotations could be made in the registrar's diaries by the supervisors.

The style and format of the diary/logbook should largely be decided by each registrar. Where staff other than designated supervisors are responsible for supervision, there should be at least fortnightly discussion using the diary as a basis for the interchange, although annotations may not be necessary.

## Summative assessment

Summative assessment should be conducted at the end of the training period. This summative assessment includes two components, being

1. the supervisors' training report, including specific mention of skills in epidural and paediatric anaesthesia, and completion or otherwise of an emergency medicine course; and
2. an examination.

Satisfactory and unsatisfactory grading only should be used for each of these components. Space is provided for comments by the examiners in the examination report proforma.

A satisfactory training report must be presented to the examiners when the registrar presents for formal assessment, as below.

## Components of formal assessment

This should include two elements:

- A. 60 minute examination with emphasis on risk assessment and management of anaesthesia complications and problems. The examination must cover the seven specified areas of anaesthesia practice, listed in the examination report. The registrar should exhibit judgment skills appropriate to rural GP anaesthesia. The assessment panel should consist of a specialist anaesthetist and a rural GP anaesthetist.

A supervisor is acceptable as one examiner. If a rural GP anaesthetist is not available, two specialists are acceptable. The examiners' report is forwarded to the JCCA after the assessment by the examiners.

- B. Three case commentaries at any stage of the training year. These may be presented to the training supervisor or be blended into the teaching program (eg. Mortality and Morbidity (M and M) meetings).
- C. A simple research project may be done instead or as well as B. This can take the form of an audit presented to the anaesthetic community. Any subject relevant to anaesthesia may be chosen.

The case commentaries or research project should be moderated internally by the designated supervisors at an appropriate time, or externally if required. Mention of them can be made in the summative assessment, if indicated. On receipt of satisfactory training and examination reports, the JCCA will consider, at its next meeting, awarding of a statement of completion of training to the registrar.

If the training supervisors feel unable to provide a satisfactory training report for a JCCA registrar, they may recommend a further period of training at the same hospital or another location. **(The registrar cannot present for a formal examination without a satisfactory training report)**. This situation should be notified to the JCCA.

## References

- » JCCA Continuing Professional Development (CPD) Standard 2017-19
- » Curriculum for general practitioner anaesthesia – 5th edition, 2018
- » Maintenance of Professional Standards Program (MOPS) for Rural GP Anaesthetists 2014-16
- » Curriculum Statement in Anaesthesia for Advanced Rural Skills and Advanced Specialised Training – Fourth Edition 2010
- » Maintenance of Professional Standards Program (MOPS) for Rural GP Anaesthetists 2011-13
- » Maintenance of Professional Standards Program (MOPS) for Rural GP Anaesthetists 2008-2010
- » Maintenance of Professional Standards Program (MOPS) for Rural GP Anaesthetists 2005-2007
- » Anaesthetics Advanced Rural Skills Curriculum Statement — Third Edition 2003
- » Accreditation Process & Maintenance of Professional Standards of JCCA 2002–2004
- » Program for the Maintenance of Professional Standards of Rural GP Anaesthetists (MOPS) 1999–2001
- » Anaesthetics Advanced Rural Skills Curriculum Statement — Second Edition April 1998
- » Guidelines for the Accreditation/Reaccreditation of Rural GP Anaesthetists – JCCA December 1995
- » Advanced Training Curricula in Anaesthetics – Faculty of Rural Medicine, RACGP, 1992

## Glossary

ACRRM	Australian College of Rural and Remote Medicine
ANZCA	Australian and New Zealand College of Anaesthetists
Approved department	A department accredited by by the JCCA and/or ANZCA to provide a registrar with supervised experience in clinical practice to attain the defined training objectives as set down in the regulations
ARST	Advanced rural skills training
ASA	American Society of Anesthesiologists
ASA	Australian Society of Anaesthetists
AST	Advanced specialised training
CPD	continuing professional development
Curriculum	Curriculum for advanced rural skills or advanced specialised training in anaesthesia
ELS	Emergency life support course
EMAC	effective management of anaesthetics crises
EMST/ATLS	emergency management of severe trauma/advanced trauma life support
GP	general practitioner
Hospital employment year	The period of 12 consecutive calendar months coinciding with the commencement and completion dates for annual appointments for (trainee) registrars. While approximating to a normal calendar year, the precise dates of commencement and completion vary in the different areas where JCCA registrars are employed.
JCCA	Joint Consultative Committee on Anaesthesia
General practitioner anaesthetist (GPA)	The term by which the registrar will be known on satisfactory completion of training.
JCCA registrar	a registered medical practitioner undertaking the JCCA's Curriculum training
M and M	Mortality and Morbidity
PDP	professional development program

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QI&CPD	quality improvement and continuing professional development
REST	Rural Emergency Skills Training
Rural GPA	rural general practitioner anaesthetist
SCA	supervised clinical attachment
RACGP	Royal Australian College of General Practitioners
Training time	Time in approved training, and is inclusive of normal holiday, sickness and parental leave, as well as special leave for study or examination purposes.

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The Joint Consultative Committee on Anaesthesia (JCCA) is a tripartite committee of the Australian and New Zealand College of Anaesthetists (ANZCA), The Royal Australian College of General Practitioners (RACGP) and the Australian College of Rural and Remote Medicine (ACRRM)



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