

Appendix 5

Position Paper on Anesthesia Assistants: An Official Position Paper of the Canadian Anesthesiologists' Society

Background

Medical and surgical care has become increasingly complex as the number and severity of comorbidities has multiplied over the years. Concurrently, advances in the practice of anesthesiology have resulted from developments in the education and training of anesthesiologists, an expanded knowledge and evidence base, and remarkable innovations in equipment, technology, and pharmacotherapeutics. Anesthesia services are increasingly provided in remote locations outside of the operating room (OR), where the need for specialist care for diagnostic and therapeutic procedures is also increasing. This increasing clinical load has challenged the ability of anesthesiologists to meet societal needs for both clinical care and academic productivity. The Canadian Anesthesiologists' Society (CAS) is committed to enhancing the quality of care for patients while improving the efficiency of anesthesiologists. The CAS welcomes the addition of competent and well trained healthcare professionals as part of an inter-professional team responsible for the delivery of perioperative anesthesia care.

Initial Premises

- Anesthesiology in Canada is practiced by specialty physicians educated at accredited university sites and certified through the nationally recognized certification process of the Royal College of Physicians and Surgeons of Canada (RCPSC).
- Individuals working as Anesthesia Assistants (“AAs”) are optimally experienced health care professionals who have pursued a defined period of didactic and clinical training specific to the competencies required to be an AA and are credentialed in Canada specific to the field of practice of an AA. AAs execute medical orders and directives as prescribed by anesthesiologists.
- Anesthesia Assistants work under the direct supervision of a specialist anesthesiologist.
- Individuals who provide purely technical assistance in operative anesthesia and who have not pursued a period of didactic and clinical training specific to anesthesia as defined under the section “Education and Training of Anesthesia Assistants” should not be given the designation of AA. Anesthesia technical personnel work under the direction and supervision of the anesthesiologists and/or an AA, and are often referred to as ‘anesthesia technicians’.

Existing models of care in 2015

- A long-standing sustainable model of an anesthesia care team (ACT) exists in the province of Québec, where AAs practice as regulated health professionals with a clearly defined legal status in the Code of Professions.
- In Manitoba, there is a model of the “Clinical Assistants-Anesthesia” (Cl.A), a profession regulated by the College of Physicians and Surgeons of Manitoba, with training established in the College of Medicine of the University of Manitoba.
- Elsewhere in Canada, a variety of institutions employ individuals as ‘anesthesia assistants’ and ‘anesthesia technicians’ who have achieved their positions through a variety of training models. Several colleges have AA education programs but there is no national curriculum or certifying body.
- In the United States of America, a variety of physician assistants have roles similar to the AA model described here. However, there are a variety of models of anesthesia care in the USA and direct comparison with Canadian roles is difficult
- In the United Kingdom, the role of the ‘Operating Department Practitioner’ (a protected title) is regulated by the UK Health and Care Professions Council. The ODP functions in the OR and other critical care areas as an assistant in a variety of roles, some specifically dedicated to assisting the anesthesiologist. Training is through a diploma program in a number of universities. More recently the Royal College of Anaesthetists has sponsored the further development of the ODP specializing in anesthesia care, known as the ‘Anesthetic Care Practitioner’ or ‘Physicians Assistant Anesthesia’.
- Australia and New Zealand have mandated the dedication of a specific trained assistant to the anesthetist during the conduct of anesthesia. This has recently been reviewed by the Australia and New Zealand College of Anesthetists, and they have published recommendations that “*all assistants being registered practitioners with the relevant regulatory authority*” in what appears to be a process similar to that underway in Canada.

Guiding Principles

The CAS “Guidelines to the Practice of Anesthesia” (2015) define that “*The independent practice of anesthesia is a specialized field of medicine. As such, it should be practised by physicians with appropriate training in anesthesia.*” However, just as the demographics of the Canadian public has changed, and patients presenting for medical care have similarly changed, and the expectations of care have changed. The simple model of anesthesia care defined 40 years ago has evolved in concert with these changes. The CAS recognizes that optimal care is no longer provided by sole practitioners, and that the model for care is now the “patient-care” team which encompasses the whole system of professionals providing patient care. In this model, the CAS has supported the development of the “Anesthesia Care Team” concept of care in which the specialist physician anesthesiologist practices with the assistance of a group of medical and paramedical personnel, including dedicated, trained, and certified Anesthesia Assistants. To ensure patient safety and optimal delivery of patient care in the perioperative setting it is essential that the practice of anesthesia continues to be based on a physician model of anesthesia care.

The tradition of excellence in care wherein each patient is exclusively cared for by one anesthesiologist has recognized limitations. Within our current *Guidelines to the Practice of Anesthesia* there is recognition that certain specific circumstances allow implementation of the ‘anesthesia care team’ model. The *Guidelines* state, “*it may be appropriate in specific circumstances for one anesthesiologist to supervise more than one case wherein solely RSS 1-3 sedation is administered, provided that an appropriately trained, qualified, and accredited individual, approved by the health care institution, is in constant attendance with each patient receiving care.*” In obstetric anesthesia care, our *Guidelines* state, “*Under the direction of an anesthesiologist, some aspects of monitoring and management of obstetric regional analgesia may be delegated to other health care personnel. Each facility should ensure that these personnel receive the same training, certification, continuing education, and recertification in obstetric regional analgesia.*” However, it is emphasized that “*Simultaneous administration of general, spinal, epidural, or other major regional anesthesia, or sedation level 4-6 (Ramsay Sedation Scale, see Appendix 6), by one anesthesiologist for concurrent diagnostic or therapeutic procedures on more than one patient is unacceptable.*” The CAS and Canadian anesthesiologists are proud of their high standard of clinical care and their reputation for the provision of safe anesthesia and such changes are not intended to jeopardize this principle.

The introduction of AAs into the ACT and the extent of their clinical activities must be under the direct responsibility of anesthesiologists, specifically the Chief of Anesthesiology (if applicable), at the clinic, hospital, regional and/or provincial levels.

Training and Education of Anesthesia Assistants

The CAS recognizes that the current Anesthesia Assistant educational programs accept and train professionals from various backgrounds. The route of entrance to Anesthesia Assistant training should be defined by the AA educational institutions and consultant organizations. The academic curriculum should cover pertinent areas of physiology, pharmacology, technical and professional aspects of Anesthesia Assistant practice. Clinical education in anesthesia care should follow existing objectives of training and may in future reflect a competency based curriculum. Regulating bodies in provinces currently accrediting AA's, and other organizations including but not limited to the Canadian Society of Respiratory Therapists (CSRT), l'Ordre Professionnel des Inhalothérapeutes du Québec (OPIQ), the Operating Room Nurses Association of Canada (ORNAC), the National Association of PeriAnesthesia Nurses of Canada (NAPANC), and the Canadian Nurses Association (CNA) should take a collaborative approach with the CAS to defining the competencies, training and education, and eventually accrediting and certification of Anesthesia Assistants on a national basis.

Anesthesiologists in conjunction with other Anesthesia Assistant educators must have involvement in the curriculum design and course content, teaching and assessment of Anesthesia Assistant trainees. Direct links between the AA Education Programs, the CAS, and the Association of Canadian University Departments of Anesthesia will facilitate this process. All stakeholders should have opportunity to provide input into AA educational programs on a regular basis to ensure the curriculum content and delivery is consistent with current educational standards and Anesthesia Assistant scope of practice.

Roles and Responsibilities

Anesthesiologists are involved in patient care pre-, intra- and post-operatively. During each phase of the perioperative period, anesthesiologists are assisted by dedicated and highly trained health care professionals. Anesthesia Assistants, as defined by the training and roles outlined in this document, are specially trained professionals whose activity will focus specifically upon assisting the anesthesiologist in the delivery of patient care during the perioperative period.

Technical Duties

The Anesthesia Assistant shall:

1. Set up, test, calibrate and operate physiologic monitors such as anesthesia workstations, intubation/airway devices, fiberoptic endoscopes, physiologic monitors and infusion devices.
 - To ensure the safety of equipment, perform equipment checks as indicated and maintain records of problems.
 - Replace and change anesthetic equipment supplies as per routine maintenance schedule.
 - Maintain the stock of drug supplies and equipment at anesthesia workstations.
2. Troubleshoot anesthetic equipment.
 - Correct problems discovered, and/or follow up with Biomedical engineering technicians or service representative.
3. Monitor trace gas pollution levels.
4. Maintain and stock pediatric, difficult intubation, hemodynamic and malignant hyperthermia carts.
5. Participate in the operating room infection control program by performing duties such as maintaining cleanliness in anesthetic equipment in accordance with quality assurance programs. Maintain measures, according to established procedures, to minimize operating room pollution.

Clinical Duties

The Anesthesia Assistant shall:

1. Assist with all aspects of the anesthetic care plan formulated for a particular patient. Including pre-operative optimization, induction, and maintenance of the anesthetic. Assist with the alteration of anesthetic levels, administration of adjunctive treatments, emergence and continuity of care into and during the post-operative period.
2. Assist in the preparation of the patient for surgery and perform pre-operative assessments as requested by the anesthesiologist.
3. Assist with or perform the insertion of devices such as oro or nasogastric tubes, intravenous, and intra-arterial catheters.
4. Assist with the insertion of pulmonary artery catheters and central venous catheters.
5. Assist with the performance of transesophageal echocardiography, transthoracic echocardiography, or other ultrasonography.
6. Assist with regional anesthesia procedures including the performance of ultrasonography for nerve blocks.
7. Assist with or perform airway management, including insertion of laryngeal masks, tracheal intubation, and mask ventilation.
8. Assist in the positioning of the patient under the direction of the anesthesiologist.

9. Adjust therapies (e.g., ventilation, temperature control devices, etc.) as directed by the anesthesiologist.
10. Administer prescribed pharmacological agents to the patient under the direction of the attending anesthesiologist, observing for side effects and efficacy of treatment
11. Assess the patient's physiological status during anesthesia by performing duties such as monitoring vital signs and anesthetic gases and advising the anesthesiologist of the patient's status.
12. Assist at emergence from anesthesia by performing duties such as aspirating secretions from the trachea and pharynx, removing laryngeal mask airways, and tracheal extubation of the patient. Remove monitoring equipment after surgery.
13. Assist with the transfer of ventilated and/or anesthetized patients between areas of the hospital as required.
14. Transfer post-operative patients to the Post Anesthesia Care Unit (PACU) under the direction of the anesthesiologist.
15. Monitor patient progress in the Post Anesthesia Care Unit, update anesthesia monitoring records, and report patient status to the anesthesiologist, in collaboration with the PACU staff, as requested.
16. Provide diagnostic data for the anesthesiologist by performing duties such as blood sampling and analysis, pulmonary functioning testing, end tidal carbon dioxide monitoring, pulse oximetry, and transcutaneous monitoring.
17. Prepare fiber-optic bronchoscopes and other equipment as required, and assist the anesthesiologist during bronchoscopy with equipment set-up, preparation of and instillation of medication, and sample procurement.
18. Assist the anesthesiologist with difficult intubations.
19. Assist the anesthesiologist with cases in locations out of the operating room.
20. Respond to cardiac arrests in OR, PACU or other locations according to hospital procedures and policies.
21. Perform initial resuscitation in life-threatening situations according to established protocols (i.e. Basic Cardiac Life Support/Advanced Cardiac Life Support, Malignant Hyperthermia, Neonatal Resuscitation Program, and Pediatric Advanced Life Support), while awaiting arrival of the responsible Anesthesiologist.
22. Evaluate and monitor patients and administer medication for procedural sedation as defined in the guidelines of the CAS.
23. Assist/perform administration of massive transfusion of blood products per hospital protocols

Administrative Duties

The Anesthesia Assistant shall:

1. In conjunction with the Anesthesiology and Biomedical Engineering Departments, maintain a variety of anesthetic equipment by performing duties, such as receiving and assessing equipment, testing and identifying malfunctions and determining whether repairs should be made on-site or equipment returned to vendor. Carry out minor maintenance following manufacturer's and Canadian Standards Association guidelines and verify vendor repairs to ensure equipment is operating in a safe and effective manner.
2. Participate in health technology assessment, including (where appropriate) meeting with medical device and pharmaceutical sales representatives to organize trials and evaluations of new equipment and drugs according to hospital protocol. Gather and collate feedback and participate in purchase decisions.

3. Arrange and co-ordinate the servicing and repair of equipment.
4. Communicate with and act as a liaison with supply companies.
5. Maintain supply inventory.
6. Source out supplies and equipment.
7. Assist the Department of Anesthesia with capital equipment budget by conducting equipment needs assessments and research.
8. Assist in quality assurance activities and research activities as may be required.

Education and Orientation

The Anesthesia Assistant shall:

1. Participate in the orientation of new operating room and postoperative care unit staff and students.
2. Participate in teaching of students.
3. Participate in in-service sessions for nursing staff and physicians on new equipment and supplies.
4. Attend training programs as required to maintain competencies of practice.

Roles and Responsibilities of Anesthesia Technical Assistants

As stipulated above, these are personnel assisting anesthesiologists in operative anesthesia care, including the operating theatres and remote anesthesia locations.

1. Their duties are technical, generally as defined above, under “Anesthesia Assistants Roles and Responsibilities Technical Duties”;
2. With appropriate in-house training and with the approval of the Chief of Anesthesiology, these personnel perform the technical duties up to their level of competence and credentials;
3. Their roles and responsibilities are defined and supervised by the Chief of Anesthesiology.