

Submission to Ontario Health: Advocacy for Anesthesia Assistants in Ontario

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I. Lay Summary

Anesthesiologists have played an active part during the pandemic: in critical care, transport, airway management teams, operating room and outside of operating room anesthesia care. Shortage of Anesthesia Health Human Resources is projected for Canada and has been consistently raised as a concern. With the surgical backlog and impending increased surgical volumes, many are now increasingly concerned about the Anesthesia Health Human Resources and wellness, the severity of such are right behind that of nursing. Certified Clinical Anesthesia Assistants provide one essential part of the solution. For healthcare efficiency, patient safety, and provider wellness, a proactive strategy of training, recruitment, and retention of Certified Clinical Anesthesia Assistants is needed.

II. Precis

We write to seek your help and advice regarding a growing shortage of anesthesia care providers in Ontario. This issue has become even more acute considering the need to address the surgical backlog in response to the COVID-19 pandemic. This letter is presented on behalf of the Chairs of the Ontario Departments of Anesthesia, namely from McMaster University, Queens University, University of Western Ontario, University of Ottawa and Northern Ontario School of Medicine, and the University of Toronto, together with the Section Head of Anesthesia, Ontario Medical Association. We collectively urge Ontario Health to support an increase in the resources available for the training, recruitment and retention of Anesthesia Assistants in Ontario Hospitals. Anesthesia assistants (AAs) are respiratory therapists and nurses who have completed additional education specifically in anesthesia assistance. These individuals work alongside anesthesiologists in a role as physician extenders. Certification of anesthesia assistants is provided by the Canadian Society of Respiratory Therapists, and results in the Certified Clinical Anesthesia Assistant (CCAA) designation. Our overarching goal is to increase in anesthesia services in a safe, practical, and timely manner. The specific request is to support the training, recruitment, and retention of CCAAs so they are available to support physician-led anesthesia care teams.

III. Background

Anesthesia Assistants have existed in one form or another in Canada for over half a century. The practice models for AA differ between provinces. In Quebec, the AA model dates back to the early 1970s^(1,2), with respiratory therapists training for and providing this role at entry to practice. In Ontario, AAs were incorporated into the Anesthesia Care Team (ACT) model based on the work by the ACT Implementation Advisory Committee and the Committee report in the early 2000s. The report noted:

- *“The economic evaluation identified an overall reduction in cost per case for selected procedures and an increase in number of surgeries completed during the study period.”⁽³⁾*
- That AAs represented *“a highly desirable solution to addressing the ongoing challenge of anesthesia manpower,”* and
- The Advisory Committee *“strongly endorses the ACT model and recommends proceeding to a province wide implementation”*

Data from one site in Ontario, between 2006 and 2017, showed that over 14, 500 general anesthesia cases and 65,000 procedural sedation cases were performed by AAs, in part or in entirety, all within the context of the ACT⁽⁴⁾.

In addition, a further 80,000 anesthetics were provided by AAs at an affiliated free-standing ophthalmology center, without any adverse events attributable to AA care.

In Manitoba, Anesthesia Clinical Assistants (ACA) were established in 2007 as a class of regulated health professionals under the Manitoba Regulated Health Professions Act, Regulation 163/2018, College of Physicians and Surgeons of Manitoba (CPSM)⁽⁵⁾. In Part 8, stipulations are clearly laid out on the supervision and regulation of such a class of health professionals. In Manitoba, such ACAs have been invaluable in providing solutions to the anesthesia HHR challenges. The Winnipeg Regional Health Authority job description on ACAs are based on the CPSM Regulated Health Professions Act.⁽⁶⁾

In British Columbia, the number of Anesthesia Assistant trainees has recently increased following a review and recommendations for the BC Ministry of Health prepared in March 2019. The document, which is entitled, “Anesthesia Education Project Findings and Recommendations”, states,

“Anesthesia assistants (AAs) are specially trained health providers who participate in the care of anesthesia patients under the supervision and delegation of the anesthesiologist. AAs participate in interdisciplinary team-based care environment to optimize the coverage, effectiveness, and efficiency of anesthesia care throughout the surgical continuum. Several drivers are causing a rapid increase in the demand for AAs in B.C., including a shortage of anesthesiologists and the increased medical complexity of patients undergoing surgery.

The CAS [Canadian Anesthesiologists’ Society] is the national specialty society that represents anesthesiologists in Canada. The CAS represents several professions including AAs and has published a position paper on the role and contributions of AAs.⁴ In this position paper, 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 care⁵”.⁽⁷⁾

In Ontario, from the earliest days, the ACT model is an inter-disciplinary care model, *“That the ACT be permanently established within the Province of Ontario as an Anesthesiologist led anesthesia care model that includes Anesthesia Assistants and other professional team members (NP-A, RN, RT, ORT) as deemed appropriate within any given practice setting.”⁽³⁾*

Work to support and expand the anesthesia assistant role began shortly after the release of the 2009 report from the Ontario ACT Implementation Advisory Committee. In 2010, the National Educational Framework for Anesthesia Assistants was developed jointly by the CAS, the Canadian Society of Respiratory Therapists (CSRT), the Association of Canadian University Departments of Anesthesia (ACUDA), and the National Association of PeriAnesthesia Nurses of Canada (NAPANc).⁽⁸⁾ The Canadian Nurses Association (CNA) also participated in those initial meetings in Ottawa. This document helped lay the foundation for the National Competency Framework in Anesthesia Assistance (NCF AA) which was developed by the AA Certification Workgroup (comprised of representatives from the above groups as well as RNs and RTs who had completed the AA training).⁽⁹⁾ This document was nationally validated in 2016 and serves as an important guiding document for the Certified Clinical Anesthesia Assistant (CCAA) designation.

This same AA Certification Workgroup also laid out the principles for the accreditation of anesthesia assistant education programs and established the exam matrix for the national AA exam. Accreditation of AA programs was initiated in 2016, and the inaugural national AA exam was administered in 2018. To become a CCAA, an individual must complete an accredited AA program, pass the national AA exam, maintain a licence to practice as either a nurse or respiratory therapist and complete annual continuing professional development in anesthesia assistance.

The CAS Position Paper on Anesthesia Assistants released in 2021 states, *“Medical/surgical care has become increasingly complex as both the number and severity of comorbidities have multiplied over the years. At the same time, there have been significant advances in the practice of anesthesiology owing to 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 the operating room where there is also a growing need for specialist care in diagnostic and therapeutic procedures. This increasing clinical load challenges the ability of anesthesiologists to meet societal needs for both clinical care and academic productivity.”*⁽¹⁰⁾

Overall, as the complexity of patient comorbidities and surgical procedures increases, concurrently with the demands to provide operative anesthesia in remote locations outside of the Operating Rooms (ORs), it is clear that for efficiency, efficacy, and patient safety, an Anesthesia Care Team model is best suited to adapt to these changing demands.

IV. Anesthesia Assistants vs Anesthesia Technical Personnel

It is important to clarify that there is a clear distinction between health professionals with post-diploma training to be AAs, specifically to provide assistance and relief to anesthesiologists during appropriate periods of perioperative care, and the healthcare workers who provide technical help such as servicing the anesthesia delivery units. In 2009, the Ontario ACT Implementation Advisory Committee report states, *“The full scope of the role of an AA cannot be performed by a Registered Respiratory Therapist (RRT) or a Registered Nurse (RN).”*⁽³⁾ This report recognized the importance of the additional education required in order to become an anesthesia assistant.

The CAS Position Paper stipulates that the designation of Anesthesia Assistants is based on their high level of training:

“In 2016, the NCF AA [National Competency Framework for Anesthesia Assistant] was validated by the interprofessional AA Certification Workgroup, which included representation from the CAS, Canadian Society of Respiratory Therapy (CSRT), ORNAC, NAPANc, Association of Canadian University Departments of Anesthesia (ACUDA), CBRC [Canadian Board for Respiratory Care], CoARTE [the Council for Accreditation for Respiratory Therapy Education] as well as practicing AAs from a variety of backgrounds. This was the culmination of many years of broad consultation with all the relevant stakeholders across the country. The purpose of the document is as a “practical tool for use by educators, accreditors, and students for the design and maintenance of education programs in anesthesia assistance,” and also for “the public, other healthcare professionals, governments, industry and other stakeholders.....to obtain guidance regarding the practice and competence of anesthesia assistants.” The validation of the NCF AA has subsequently allowed the development of an interprofessional accreditation process for AA education programs and it has also enabled the creation of a national examination for AAs by a multidisciplinary panel. Both accreditation and the examination are administered through the CSRT. The examination is now one of the requirements for obtaining the Certified Clinical Anesthesia Assistant [CCAA] designation offered by the CSRT to AAs of all backgrounds who meet the necessary criteria.”⁽¹⁰⁾

The CAS also stipulates that,

“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 in the National Competency Framework for Anesthesia Assistance (NCF AA)—should not be given the designation of AA. Anesthesia technical personnel work

under the direction and supervision of anesthesiologists and/or AAs and are often referred to as “anesthesia technicians”.⁽¹⁰⁾

In essence, much work by multiple organizations and by inter-disciplinary healthcare professionals has helped to define the trainings of CCAAs. Certified Clinical Anesthesia Assistants, with their dedicated training, are credentialed to provide a full scope of anesthesia care under the medical supervision of a consultant anesthesiologist, including the administration of anesthetics, vasoactive medications, and inotropes.

V. Roles and Responsibilities

From January 7th to March 31st, 2019, a series of focus groups was held with anesthesia subject matter experts, health authority operational leads, and professional practice leaders from across the province of British Columbia.⁽⁷⁾ Similar to the current HHR shortages in Ontario, the impetus for the discussions was the serious shortage of anesthesiologists and the impact of such shortages on surgical as well as diagnostic services across the province. The focus groups involved anesthesiologists, AAs and administrative leaders, perioperative nurses, allied health leaders, professional practice leaders, and operational / surgical service leaders. The general findings were, “..... AAs improve the quality and safety of anesthesia care, boost staff morale, and provide efficiencies throughout the anesthesia care process.” (Attachment 1)

It was also recommended that “All health authorities to adopt the National Competency Framework in Anesthesia Assistance (NCF AA 2016) to guide the entry to practice requirements for anesthesia assistants.”⁽⁷⁾ As noted above, the NCF AA 2016 is a comprehensive set of competencies delineated jointly by the interprofessional AA Certification Workgroup with representation from the stakeholder groups (Attachment 2).⁽⁹⁾ The British Columbia Anesthesia Assistant Education Project Findings and Recommendations report also created a generic job description for the health authorities in that province (Attachment 3).⁽⁷⁾

Examples of CCAA competencies that would provide operative anesthesia efficiencies include the ability to conduct preoperative assessments, set up anesthetic machine and equipment when anesthesia services are required in remote out-of-OR locations; help during change-over of ORs between cases, especially in preparation of complex cases and equipment / invasive line setup; monitoring patients; administering prescribed pharmacological agents under the direction of anesthesiologists; and providing relief of anesthesiologists for lunch breaks without having to stop the OR. The full scope of practice can be viewed in the [NCF 2016](#)

VI. Advocacy for Anesthesia Assistants needed

Surgical Backlog

With the current surgical backlog, as a result of the pandemic, it is anticipated that there will be a significant period of increased surgical services. From the Finance Accountability Office, “...the FAO projects that the surgery backlog will reach 419,200 procedures and the diagnostic backlog will reach nearly 2.5 million procedures by the end of September 2021...”, and “that it will take 3.5 years to clear the surgery backlog of 419,200 procedures and over three years to clear the diagnostic backlog of 2.5 million procedures”.⁽¹¹⁾ To address such a backlog will require an investment in Health Human Resources. Currently, there are no concrete plans to increase the compliment of CCAAs as part of this necessary increase in anesthesia HHR.

Operating Room and Out-of-OR Efficiencies & Patient Safety

In the OR, change-over between cases, and preparation for the next cases including equipment setup and checks can be greatly expedited with the deployment of CCAAs. Out-of-OR setup such as for brachytherapy, MRI, interventional radiology, and pediatric sedation for investigations are also areas where the deployment of CCAAs can increase efficiencies. For example, in one community hospital, between 7:30 AM and 3:30 PM, with the deployment of CCAAs, one orthopedic OR could efficiently and safely put through 4 major joint replacements, or 3 major joint replacements with 2 arthroscopies. This is only accomplished by having CCAAs setting up medications, equipment, and positioning patients for regional anesthesia such as IPAK (infiltration of local anesthetic between the popliteal artery and capsule of the knee), and spinal anesthesia, while the anesthesiologist is transferring the patient to the PACU (post anesthesia care unit). With the CCAA help, anesthesiologists also are not put in a position of working without lunch for eight hours straight. Patient safety, OR efficiency, and healthcare provider wellness are important considerations. In out-of-OR settings, equipment including anesthetic machines may have to be set up. Such preparations require proper training but also may take up to 30 min to prepare. These are but some examples of efficiencies that may be gained with CCAA as anesthesia physician extenders.

Anesthesia Health Human Resource Challenges

For some time, concerns have been raised that a shortage of anesthesia health human resources (HHR) exists or is projected in many if not all of the provinces. “An overall shortage of anesthesiologists is projected for Canada; thus, investment in health human resource planning and innovative training strategies are required to address this shortage.”⁽¹²⁾ This is especially acute in British Columbia but most of the provinces have reported similar challenges. In addition, as was the case after SARS in 2003, there already exist challenges in HHR in the recruitment and retention of OR nurses, at least in Ontario, if not nationally. Of note, “Importantly, the FAO has not reviewed the Ministry of Health’s plan to clear the surgical and diagnostic procedure backlog in relation to required staffing levels....”⁽¹¹⁾ In most ORs, 2.5 FTE nursing complement is expected. With the deployment of AAs, for example, 1.0 FTE per 3 ORs excluding vacation and administration, perioperative efficiency and patient safety can be maintained despite the current HHR challenges, anticipated to worsen with the surgical backlog.

Recruitment and Retention of Anesthesia Assistants

The training of CCAA is a post-diploma course, with over 26 weeks of didactic education and approximately another 12+ weeks of practicum. (The exact duration of the clinical practicum is contingent on the attainment of the required competencies, with some learners requiring more or less time.) Respiratory therapists and nurses who pursue anesthesia assistant education must balance schooling with their careers or take a leave from work to attend classes. Either scenario puts financial and/or mental strain on the learners. Through conversation with the Director of Accreditation and Professional Practice of the Canadian Society of Respiratory Therapists, it was confirmed that Ontario learners often work reduced hours or leave active roles in critical, acute or operating room care to pursue their AA education. This loss or reduction of income coupled with tuition fees has been identified as a key barrier to RTs or RNs pursuing this education.

In addition, there is little financial incentive to pursue this education, as certification does not generally come with a pay increase to offset the financial challenges imposed by pursuing AA education. In many Ontario hospitals, the pay scale of CCAAs after the post-diploma training may remain at the pay scale of an RRT (Registered Respiratory Therapist) or the pay differential is minimal and not meaningful. The differential may be as small as \$1 per hour.

The financial barriers have become significant enough to impact enrolment in anesthesia assistant education programs. In 2015, CCAA courses were offered at Algonquin College in Ottawa, Fanshawe College in London, and the Michener Institute for Education at UHN in Toronto. In 2015, Algonquin ceased offering the AA course; this year, Fanshawe has “temporarily” stopped offering the CCAA course for 2021 – 2022. Fanshawe is ready to restart in 2022 – 2023 only to offer the program every other year if recruitment increases. As a result, Michener is the only institution in Ontario offering CCAA courses on an annual basis. One distance program is available to learners in Ontario (Thompson Rivers University) but that program requires a confirmed placement for clinical practicum as one of its acceptance criteria. This acceptance criterion is problematic for RTs or RNs who do not have an existing relationship with a clinical site.

Operating rooms and departments of anesthesia are important clinical practicum sites for a number of professions in addition to anesthesia assistants. Medical students, anesthesia residents, respiratory therapy students, paramedicine students and nursing students rotate through the anesthesia environment to acquire required entry to practice competencies. This places strain on these departments and creates a bottleneck for clinical placements for learners for each profession, particularly in southern Ontario. In the context of a post-pandemic Ontario, it is important to note that strain on anesthesia services will impact learners across multiple professions, and that there may need to be an incentive for clinical sites to make themselves available to support these learners.

Unless incentives to increase enrollment, recruitment, and retention of CCAAs in Ontario, the sustainability of such an important group of health professionals will be in jeopardy. This is in the presence of an impending crisis in surgical backlog and perioperative HHR challenges.

Impending Retirement of CCAAs

As noted above, in Ontario, there were a number of CCAAs who were recruited in the mid-2000s. Many of these CCAAs are close to or have taken retirement. This is partly due to the initial cohort being selected from more experienced RRTs. The aging cohort has and will continue to compound the HHR challenges. Such challenges are not unlike that of nursing and anesthesiologists.

VII. Summary

Multiple provinces and the Canadian Anesthesiologists’ Society have supported and endorsed the care model of an ACT that utilizes Certified Clinical Anesthesia Assistants. The current surgical backlog as a result of the COVID-19 pandemic will pose significant stress in perioperative care. The current and anticipated worsening shortages in anesthesia HHR (health human resources) are likely to be worse than the wait list period experienced in Ontario during the mid-2000s. Now, as was then, the use of CCAAs will be an essential part of the perioperative HHR solution where their role as physician extenders will expand the reach of anesthesia care. There exist challenges in the recruitment of qualified students into anesthesia assistant programs which need to be addressed to prevent worsening AA HHR challenges and to address upcoming ACT HHR challenges as Ontario addresses the surgical backlog.

Recommendations

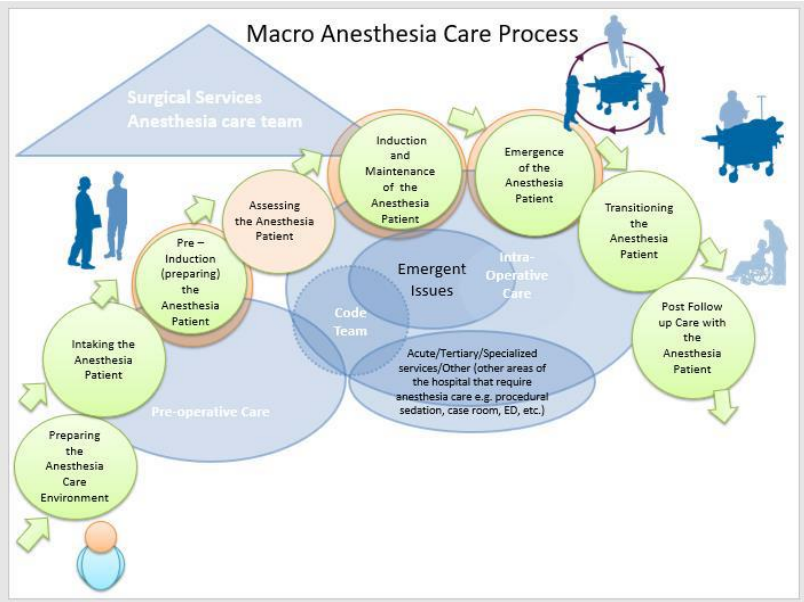
1. Provide targeted financial support to hospitals as incentives for the training of CCAAs
2. Provide targeted financial support to hospitals for meaningful differential in pay as CCAAs
3. Provide targeted financial support to hospitals to create additional positions for CCAAs above the current complement to address the current and worsening anesthesia HHR challenges. This could entail respective

hospitals and chief of anesthesia to provide the business case as well as metrics for efficiency, patient safety, surgical backlog / wait list, and healthcare professional wellness.

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Attachment 1



Attachment 2

CSRT National Competency Framework in Anesthesia Assistance and Performance Indicators (2016)																	
SECTION I: PROFESSIONAL AND ORGANIZATIONAL COMPETENCIES																	
It is recognized that individuals entering the AA programs are health professionals and have attained a background level of competency in the elements outlined in Section I. Foundation knowledge is therefore not included in this section.																	
A. Demonstrate professionalism toward patients and their families, coworkers and the public																	
<u>Performance Indicators</u>																	
<ol style="list-style-type: none"> 1. Use professional language, behaviour, and attire 2. Function within professional, medical, legal and ethical guidelines/regulations 3. Adhere to training institution's mission, vision and values 4. Demonstrate dependable and self-directed behaviour in assuming responsibilities 5. Accept constructive criticism and act on it in a professional manner 																	
B. Demonstrate effective communication with the patient and their families, co-workers and the public																	
<u>Performance Indicators</u>																	
<ol style="list-style-type: none"> 1. Communicate effectively with physicians, staff and patients 2. Maintain documentation and records 																	
C. Demonstrate critical thinking and reasoning																	
<u>Performance Indicators</u>																	
<table border="0"> <tbody> <tr> <td>1. Demonstrate critical judgment in professional practice</td> <td>9. Foresee adverse outcomes</td> </tr> <tr> <td>2. Adjust to unexpected circumstances</td> <td>10. Demonstrate planning skills</td> </tr> <tr> <td>3. Respond appropriately to changing situations</td> <td>11. Implement plans, decisions and procedures Demonstrate evaluation skills</td> </tr> <tr> <td>4. Adhere to quality assurance guidelines</td> <td>12. Troubleshoot equipment</td> </tr> <tr> <td>5. Demonstrate problem solving skills</td> <td>13. Prioritize work</td> </tr> <tr> <td>6. Anticipate problems</td> <td>14. Recognize a fixation error</td> </tr> <tr> <td>7. Recognize the early signs of a changing situation</td> <td></td> </tr> <tr> <td>8. Continually assess situations</td> <td></td> </tr> </tbody> </table>		1. Demonstrate critical judgment in professional practice	9. Foresee adverse outcomes	2. Adjust to unexpected circumstances	10. Demonstrate planning skills	3. Respond appropriately to changing situations	11. Implement plans, decisions and procedures Demonstrate evaluation skills	4. Adhere to quality assurance guidelines	12. Troubleshoot equipment	5. Demonstrate problem solving skills	13. Prioritize work	6. Anticipate problems	14. Recognize a fixation error	7. Recognize the early signs of a changing situation		8. Continually assess situations	
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8. Continually assess situations																	

D. Ensure the health and safety of the patient, co-workers and self

Performance Indicators

1. Carry out procedures and operations with respect to the Workplace Hazardous Materials Information System (W.H.M.I.S.)
2. Use personal protective equipment as warranted
3. Utilize infection control procedures
4. Adhere to manufacturer and Canadian Standards Association specifications and guidelines in the proper use of equipment
5. Employ manufacturers' recommendations for cleaning and disinfecting equipment

E. Use evidence to inform practice

Performance Indicators

1. Discuss research design, data collection and analysis
2. Evaluate research by Level of Evidence classification

F. Perform administrative duties

Performance Indicators

1. Apply cost containment practices per institution guidelines
2. Participate in equipment preventative maintenance as per manufacturer and Canadian Standards Association specifications
3. Adhere to quality assurance guidelines

G. Demonstrate a commitment to education

Performance Indicators

1. Participate in lifelong learning and ongoing training required to maintain competency of practice
2. Participate in the education of students and other healthcare professionals

SECTION II: ANESTHESIA ASSISTANT COMPETENCIES

A. Administer prescribed pharmacological agents under the direction of the attending anesthesiologist

Performance Indicators - Foundational Knowledge P. 9-18

1. Assess the patient's pharmacological requirements in consultation with the attending anesthesiologist
2. Prepare prescribed agents
3. Demonstrate the administration of prescribed agents
4. Titrate prescribed agents to patient response
5. Recognize complications and take corrective action
6. Demonstrate an understanding of the implications of pre-operative medication on the intra-operative course

B. Operate anesthesia equipment

Performance Indicators - Foundational Knowledge P. 19–23

1. Predict potential hazards of anesthesia gas delivery
2. Prepare the anesthesia workstation
3. Operate the anesthesia workstation
4. Troubleshoot the anesthesia workstation
5. Perform the anesthesia workstation checkout
6. Perform appropriate patient ventilation using the anesthetic machine
7. Describe a quality assurance program for anesthesia equipment
8. Demonstrate ancillary equipment checks, maintenance, troubleshooting and antisepsis techniques

C. Monitor the patient's physiological status

Performance Indicators - Foundational Knowledge P. 24 -27

1. Prepare hemodynamic monitoring systems in anesthesia
2. Insert arterial lines
3. Assist with insertion of central venous pressure lines
4. Prepare non-invasive monitoring

5. Apply non-invasive monitors
6. Interpret results of monitoring
7. Perform arterial blood sampling
8. Perform venous blood sampling
9. Analyze blood samples (e.g. point of care)
10. Interpret blood test results and propose corrective action

D. Provide preoperative care

Performance Indicators - Foundational Knowledge P. 28 - 29

1. Conduct a patient interview
2. Perform a preoperative assessment and convey it to the attending anesthesiologist in a concise, organized report
3. Provide preoperative care

E. Manage the patient's airway

Performance indicators - Foundational Knowledge P. 30 – 32

1. Perform airway assessments
2. Prepare equipment for all airway management techniques
3. Perform airway management
4. Perform under direct supervision of the anesthesiologist the following procedures: bag/mask ventilation, insertion of oropharyngeal/nasopharyngeal airway, endotracheal/nasotracheal intubation, laryngeal mask airway insertion
5. Perform the Sellick technique
6. Assist/perform difficult airway management under direct supervision of the anesthesiologist: awake intubation, double lumen endotracheal tube insertion, rapid sequence induction

F. Assist with the Administration of General Anesthesia

Performance Indicators - Foundational Knowledge P. 33 – 34

1. Prepare all equipment necessary for the anesthetic
2. Prepare appropriate intravenous administration equipment
3. Demonstrate correct intravenous insertion techniques
4. Evaluate the patient
5. Apply techniques for the induction of anesthesia
6. Position the patient with respect to surgical requirements, patient limitations, airway and the minimizing of pressure points
7. Monitor patient status during anesthesia and at emergence
8. Recognize complications and take corrective action
9. Recognize a patient emergency and assist with managing the critical event
10. Practice maintenance of general anesthesia
11. Practice discontinuation of anesthesia
12. Transfer patient for post-operative care

G. Delivery of Regional Anesthesia

Performance Indicators - Foundational Knowledge P. 35 – 36

1. Position patient properly for regional procedure
2. Demonstrate the administration of prescribed local anesthetic

3. Assist in the administration of epidural anesthesia
4. Assist in the administration of spinal anesthesia
5. Assist in the administration of peripheral nerve block, including utilizing appropriate equipment (E.g. ultrasound)
6. Recognize complications and take appropriate corrective action

H. Deliver Procedural Sedation

Performance Indicators - Foundational Knowledge P. 37

1. Perform pre-operative assessment and discuss with attending physician or as per protocol
2. Apply monitors for procedural sedation addressing the needs of specific procedures
3. Administer procedural sedation

I. Manage Post Anesthesia Care

Performance Indicators - Foundational Knowledge P. 38

1. Assess the patient in the recovery room
2. Recognize post-operative complications and take corrective action

J. Assist with pain management

Performance Indicators - Foundational Knowledge P. 39 -40

1. Assess the patient's postoperative pain
2. In consultation with the anesthesiologist, formulate a multimodal approach to the treatment of a postoperative patient
3. Recognize complications that are associated with postoperative pain management and in consultation with the anesthesiologist, prepare a plan of corrective actions
4. Recognize the requirements for the safe administration of intravenous narcotics
5. Recognize the side effects associated with neuraxial analgesia and perform corrective actions if necessary

K. Perform Crisis Management

Performance Indicators - Foundational Knowledge P. 41

1. Recognize a critical event and initiate appropriate supportive and corrective action
2. Monitor patient to assess efficacy of interventions and revise treatment plans as appropriate

L. Administer blood products

Performance Indicators - Foundational Knowledge P. 42-43

1. Cross-check blood products
2. Prepare equipment for the administration of blood products
3. Assist with cell salvage
4. Perform massive transfusion

M. Assist with the Delivery of Anesthesia in Special Circumstances

Performance Indicators - Foundational Knowledge P. 44

1. Assist the attending anesthesiologist with the delivery of anesthesia to patients with specific conditions
2. Assist the attending anesthesiologist with the delivery of anesthesia in satellite sites

Attachment 3: Generic Job Description from British Columbia⁽⁷⁾

JOB SUMMARY

In accordance with the Mission, Vision and Values, and strategic directions of XX Health Authority patient safety is a priority and a responsibility shared by everyone at XX, and as such, the requirement to continuously improve quality and safety is inherent in all aspects of this position.

Reporting to < XX and working under the direction of the Anesthesia Assistant Supervisor (or equivalent in XX)> the Anesthesia Assistant (AA) performs technical duties related to anesthesia assistance such as testing, calibrating, preparing, maintaining and operating anesthesia equ and supplies.

Working under the supervision of the responsible Anesthesiologist, the AA provides clinical care duties throughout the anesthesia care process (intaking, pre-induction, assessing, induction and maintenance, emergence and transitioning) as per established standards, policies, and procedures. The AA demonstrates continuous improvement and best practice approach in anesthesiology assistant practice.

The AA is a member of the integrated surgical team, where the AA participates on clinical committees/teams, approved anesthesiology research, and assigned special projects.

The AA practices in accordance with the Canadian Society of Respiratory Therapists (CSRT) *National Competency Framework in Anesthesia Assistance* (2016).

General Expectations in this role:

- Demonstrates personal initiative in maintaining professional knowledge and currency in AA theory and practice by reviewing professional literature, consulting with other professionals and actively participating in relevant education programs.
- Maintains documentation of procedures performed on individual patients in accordance with best documentation practice meeting organizations policies & procedures for documentation.
- Participates in orientation of medical personnel, staff and students by demonstrating anesthesia equipment and procedures.
- Participates in directed anesthesia care in other areas outside of the operating room such as Diagnostic Imaging (e.g. Magnetic Resonance Imaging (MRI), Computed Tomography (CT))

Intensive Care Unit (ICU), Angiography suite, Emergency Room (ER), Case Room, etc., as required.

- Demonstrates ability to complete initial and ongoing patient/client assessments (clinical and diagnostic reasoning) through appropriate/prescribed technical, therapeutic, safety type interventions.
- Responds to and provides airway, ventilatory, and circulatory support in emergencies requiring anesthesiology intervention, and responds and participates in providing cardiopulmonary resuscitation procedures or malignant hyperthermia situations in perioperative area as well as other areas of the hospital by performing tasks such as basic and advanced life support interventions.

DUTIES AND RESPONSIBILITIES WITHIN THE ANESTHESIA CARE PROCESS

Preparing the Anesthesia Care Environment

- Ensures that anesthesia machines and monitors in and outside of the Operating Room are calibrated, maintained, and in optimum condition, according to department standards by performing duties such as receiving and assessing equipment, testing and identifying malfunctions and determining whether repairs should be performed on-site or returned to vendor.
- Maintains inventories of supplies, gases, and other material and orders supplies when necessary to meet operational needs.
- Maintain measures, according to established procedures, to minimize operating room pollution.
- Completes and documents maintenance in accordance with manufacturer's, Canadian Standards Association (CSA), and with site guidelines, as appropriate.

Intaking the Anesthesia Patient

According to the anesthetic plan and working under the supervision of the responsible Anesthesiologist, the Anesthesia Assistant:

- Prepares the patient for anesthesia care by performing and/or assisting with patient assessments prior to surgery to a) establish an anesthetic plan for patient management and b) to help the Anesthesiologist anticipate patient needs.
- Prepares pharmacological agents and equipment.
- Performs diagnostic tasks such as: arterial blood gas sampling, ECG, point of care analysis (e.g. blood glucose), pulmonary function testing, exhaled gas monitoring, vital signs and pulse oximetry.

Pre-Induction (preparing) the Anesthesia Patient

According to the anesthetic plan and working under the supervision of the responsible Anesthesiologist the Anesthesia Assistant assists the Anesthesiologist in preparing the patient by the following:

- Performs pre-operative assessments such as performing an anesthetic risk and airway assessment and determines the general physical, cardio-respiratory status (e.g. Tidal Volume, Rate, Ventilation mode and pressures), and vital signs (ECG, heart rate, blood pressure, and temperature) of patient, and interprets results.
- Provides psycho-social support to ensure patient feels comforted before and during induction of anesthesia, including explaining procedures/equipment, answering questions and/or referring to Anesthesiologist.
- Assists the Anesthesiologist with inserting Neuraxial, peripheral nerve and therapeutic and diagnostic blocks.
- Performs and/or assists with patient positioning and taping of epidurals.
- Establishes patient monitoring and records patient's vitals prior to the induction of anesthesia.
- Monitors vital signs.
- Administers inhaled medications such as bronchodilators, epinephrine and xylocaine while monitoring patient airway. This includes calculating the appropriate dose of lidocaine to administer, being mindful of lidocaine's toxicity.
- Documents clinical findings in the anesthesia record and patient chart as part of the care plan according to practice standards and employer guidelines.
- Assists with patient transfer in and out of the Operating Room as determined by the critical nature of the patient's status.

Induction, Maintenance, and Emergence of the Anesthesia Patient

According to the anesthetic plan and working under the supervision of the responsible Anesthesiologist, the Anesthesia Assistant participates with the induction, maintenance and emergence of anesthesia, by performing duties such as:

- Performs airway insertions (including endotracheal, endobronchial, and laryngeal mask airways, oropharyngeal/nasopharyngeal airway).
- Attaching or participates in inserting invasive and non-invasive monitoring equipment. such as: esophageal stethoscopes, peripheral and central intravenous catheters (with or without ultrasound) and performs temperature probes.

- Participates in insertion of devices such as: oro- or nasogastric tubes, intravenous, intra-arterial, PICC lines, pulmonary artery catheters, radial and/or pedal artery catheter and other central line catheters.

- Participates in insertion of devices such as: Neuraxial anesthetic or catheters and catheters for regional anesthesia.
- Participates in endotracheal intubations using a bronchoscope, standard laryngoscopy and/or advanced fiberoptic equipment.
- Assists in placement of neuraxial and regional anesthesia.
- Provides the Anesthesiologist with diagnostic data by performing arterial blood gas sampling (from arterial punctures or arterial lines) and analysis, end tidal carbon dioxide monitoring, pulse oximetry, glucose testing, cardiac output determination, wedge measurements, and hemodynamic calculations, and interpreting results as required.
- Collects, monitors and records patient data.
- Assists the Anesthesiologist in performance of anesthetic block
- Assists with or provides conscious sedation procedures.
- Assesses patient's physiologic status while under anesthetic by performing duties such as monitoring vital signs, anesthetic gases.
- Assists with fiberoptic airway procedures and performs under supervision: blood and blood product transfusion and autotransfusion (cell salvage).
- Monitors and interprets the patients' physiological response to procedural stimulation/medication, for effectiveness and complications of the procedure such as adverse reactions.
- Assists the Anesthesiologist during bronchoscopy with equipment setup, preparation of and installation of medication, and specimen collection and preparation.
- Provides anesthetic care to stable patients as directed by the Anesthesiologist following clear employer guidelines in the event the Anesthesiologist must leave the room temporarily.
- Provides care during transfer of ventilated and/or anesthetized patients by monitoring respiratory status during transport between areas of the hospital as required.

Administration of prescribed pharmacological agents under the direction of the responsible Anesthesiologist, the Anesthesia Assistant:

- Administers medications as per established best practice and organization policies.
- Demonstrates an understanding of the implications of pre-operative medication and recognizes complications and takes appropriate corrective action.
- Administers local / topical anesthetics.
- Titrates, adjusts, compounds and administers prescribed pharmacological agents and anesthetics to patients (including volatile agents) and observes, records and communicates to the Anesthesiologist efficacy of treatment to ensure patient is responding to drugs as prescribed. This may include administering medication for procedural sedation.
- Monitors, and adjusts ventilation modalities as required to ensure adequate patient ventilation and oxygenation.

- Evaluates outcomes based on their assessment to determine next steps and makes recommendations to the Anesthesiologist related to pain management intervention.
- Performs airway maintenance tasks during emergence such as aspiration of secretions from the trachea and pharynx, patient extubation, removing LMAs, and discontinuing monitors and removing anesthesia equipment after surgical procedures.
- Administers high flow oxygen therapy or specialty inhalational therapy as per direction for patients in Post Anesthesia Care Unit (PACU) and communicates patient assessment needs with the Anesthesiologist for patients requiring long term ventilation and/or oxygenation.
- Monitors patient's progress in the PACU, updates anesthesia monitoring sheets and reports patient status to the Anesthesiologist, as requested.
- Assists clinically and technically with procedures involving adjunct technologies (such as rapid pressure injectors, trans-esophageal echocardiography, endobronchial/endoscopic ultrasound, nerve stimulators, pacemakers, etc.) in accordance with departmental standards.

Transitioning of the Anesthesia Patient

In consultation with the Anesthesiologist, the Anesthesia Assistant:

- Formulates a multimodal approach to the treatment of the postoperative anesthetic patient.
- Provides post-operative assessment of patients (e.g. anesthetic risk and airway assessment, pain assessment) and determines the general physical status of the patient. Advises the Anesthesiologist of the patient's status and prepares a plan of corrective actions and/or discharge if required.
- Follows best practice, policies/procedures aligned with Accreditation standards for hand-over of care to other health care providers.

QUALIFICATIONS

Completion of an accredited post-graduate Anaesthesia Assistant Program plus three <3> years' recent related clinical care experience, or an equivalent combination of education, training and experience. Eligibility for registration with the Canadian Society of Respiratory Therapists (CSRT), BC College of Nurse Professionals (BCCNP) registration, or eligibility for membership with the Canadian Anaesthesiologists' Society (CAS). Recent Basic Cardiac Life Support certification. Certain site-specific requirements may include upon hire, the successful completion of ACLS (NRP or PALS if site-specific need).

SKILLS AND ABILITIES

- Demonstrated ability to participate in operating room infection control program by performing duties such as assessing infection control in anesthetic equipment to safety standards in accordance with quality assurance programs.
- Demonstrated ability to perform quality control checks and maintains records per established standards and procedures.
- Demonstrated ability to carry out quality assurance activities as required such as following up on and investigating incident reports, evaluations and other data, and collecting and compiling statistical data for research and evaluation purposes.
- Demonstrated ability to operate related equipment and supplies as required in the specific practice area as well as demonstrated proficiency in relevant software/computerized patient care information system/ applications.
- Demonstrated ability to integrate and evaluate pertinent data from multiple sources, assess client responses to care using critical decision-making skills, and to respond appropriately.
- Demonstrated ability to communicate effectively with patients/clients, families, the public, medical staff and members of the interdisciplinary team using verbal, written, and electronic communication means.
- Demonstrated broad knowledge of research process and methodology.
- Demonstrated ability to effectively resolve conflict.
- Demonstrated ability to establish workload priorities in collaboration with others and foster teamwork and a commitment to excellence in the provision of client care.
- Demonstrated ability to adjust to new or unexpected events.
- Demonstrated ability to organize work, set objectives and establish priorities.
- Demonstrated ability to plan and implement plans of care in relation to patient/client/family priorities.
- Demonstrated skill in CPR techniques.
- Physical ability to perform the duties of the position.