



COLLEGE OF RESPIRATORY THERAPISTS OF ONTARIO  
ORDRE DES THÉRAPEUTES RESPIRATOIRES DE L'ONTARIO

Discussion Paper

# **ANAESTHESIA ASSISTANTS & ADVANCED PRACTICE ROLES**

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## Executive Summary

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This report examined the new and evolving role of Registered Respiratory Therapist-Anesthesia Assistant to inform policy decisions regarding education, entry to practice, and regulation in the public interest; including investigating the implications of adding an advanced/expanded class of registration. To that end, this paper reports on (1) a situational analysis of RRT-AAs, the advanced practice role and CRTO's regulatory mandate, (2) the definitions and key criteria for an "advanced practice" role and terms such as specialist, extended class, and (3) the implications of adding an advanced/expanded class of registration for CRTO Members.

Relevant data was collected through research and review of documents related to advanced practice and anaesthesia assistants in Ontario and other jurisdictions, a limited literature search that provided a guide to current information on this topic, key informant interviews (RRT-AAs, regulators, educators, and other stakeholders in Ontario and other jurisdictions, an electronic survey of RRT-AAs).

AA role is filled by both RRTs and RNs and each is regulated by their respective College. RRT-AAs are mid career practitioners, with experience and post graduate preparation for the role. All found the role interesting, challenging, and acknowledged they developed new competencies, clinical judgement and responsibility when they took on the role. Many expressed a desire for acknowledgement of these new competencies, clinical judgement and responsibility by the CRTO. There was considerable variability in how they described their work in terms of controlled acts that suggested lack of understanding of the RHPA and Respiratory Therapy Act.

The Anaesthesia Care Team (ACT) demonstration project found the AA a valuable member of ACT and ACT demonstration projects a success. The Steering Committee recommended permanent establishment of ACTs in Ontario, standardization of AA role and supervision, protect title of AA.

The current definition, scope of practice, controlled acts, valid orders, delegation in RHPA and Respiratory Therapy Act support the RRT-AA role in Anaesthesia Care Team (ACT) and is consistent with both CSRT and CAS position statements. Although some research participants indicated, the CNO and CSRT have used the language in the RHPA, Respiratory Therapy Act and Nursing Act in ways that were not intended. They felt the AA role required additional regulatory mechanisms for entry-to-practice, access to controlled acts, quality assurance and title protection.

The term Advanced Practice is used universally, but there is no consensus on definition, key criteria, terms, or regulation. This paper uses the Strong Model of Advanced Practice where there are five domains of practice: Direct Comprehensive Care, Support of Systems, Education, Research and Publication and Professional Leadership. Professions that engage in all five domains tend to have baccalaureate preparation as entry-to-practice requirement. Most advanced practice roles develop as a result of economics and advances in health care research and practice. It appears the RRT-AA role is in the early stages, where there is good evidence of growth direct comprehensive care responsibilities, but less in the other domains.

There seems to be three types of Advanced Practice: Independent Practice, Physician Extender, Clinical Specialization and several approaches to regulation: Regular Class, Extended Class, New College, Other Agency. It appears the AA role is consistent with the physician extender role. And, there are many options for regulation, some beyond the purview of the CRTO.

The RRT-AA role is not an advanced practice role according to the Strong Model of Advanced Practice or the RHPA and Respiratory Therapy Act. This notwithstanding many have expressed a need to differentiate the RRTs working in an AA role on an ACT by codifying entry-to-practice, access to controlled acts, quality assurance, title protection.

The paper presents several options for regulating RRT-AAs with associated benefits and risks, and proposes some leadership roles for the College in terms of advance practice and Anaesthesia Assistants.

# Introduction

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The CRTO's 2008 Strategic Plan (CRTO, 2008) calls for an examination into the new evolving role of Registered Respiratory Therapist-Anesthesia Assistant. Specifically, the Plan states: "examine the role of RRT-Anesthesia Assistants in the health care team and affect policy decisions regarding education, entry to practice, and regulation in the public interest." (CRTO, 2008, p. 3) One sub-element of this specific initiative is to investigate the implications of adding an advanced/expanded class of registration.

This requires an analysis of the investigation of the implications of adding an advanced/expanded class of registration. To that end, this paper reports on:

- A situational analysis regarding RRT-Anaesthesia Assistants, the advanced practice role and CRTO's regulatory mandate
- The definitions and key criteria for an "advanced practice" role and terms such as specialist, extended class
- The implications of adding an advanced/expanded class of registration for CRTO Members.

Defining advanced practice specifically belongs to the country, body or initiative seeking to develop a specific professional health care role (Martino, 2007). There are many stakeholders interested in resolving the issue, all of whom have their own agenda, concerns and needs and they include:

- Practitioners, who are looking for career advancement/ladder opportunities
- Employers, who are looking to improve the quality and efficiency of their organizations
- Regulators, whose function it is to protect the public and ensure that practitioners are competent to perform the functions they are authorized to do
- Educators, who must be prepared to participate in the training of individuals who are moving into advanced practice roles
- The public, who wants the best possible care and to receive that care in a timely and satisfactory manner that leads to positive outcomes
- Funders, who are seeking ways to manage healthcare costs and demand

## Project Objective

This paper attempts to answer questions about RRT-AA scope of practice and advanced practice roles in order to inform policy decisions about regulating RRT-AAs in Ontario. The questions related to each topic are outlined below.

### Situational Analysis of Respiratory Therapists Practicing in AA Roles

- What is the scope of practice of AAs in Ontario and other jurisdictions?
- How are AAs educated in other jurisdictions?
- What titles are used in other jurisdictions?
- How are AAs regulated in other jurisdictions?
- Is there a role for the regulator with respect to AA issues, if so what is it?
- What are the employers' perspectives on AAs?
- What are the educational institutions' perspectives on AAs?
- Do other jurisdictions have position statements or detailed role descriptions on AAs?
- What are the national practice parameters for AAs that best meet the needs of the patient/public?

### Advanced Practice Roles

- What is the history, evolution and rationale for advanced practice roles?
- What are the definitions and key criteria for advanced practice roles?
- What titles are associated with advanced practice roles?
- What is the role of the regulator with respect to advanced practice roles in terms of meeting the needs of the patient/public?
- What are the issues arising with respect to advanced practice roles?

## Methods

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During the course of this project, the researcher undertook to collect relevant data through a number of methods and sources. These included:

- Research and review of documents related to advanced practice and anaesthesia assistants in Ontario and other jurisdictions
- Limited literature search; the literature provided a guide to important, current information on this topic
- Key informant interviews with AA-RRTs, regulators, educators, and other stakeholders in Ontario and other jurisdictions. (See Appendix A for list of interview participants)
- Electronic survey of RRTs. (See Appendix B for the survey results)



# Findings – Anaesthesia Assistant

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## Introduction

AAs are well established internationally and, to a limited extent, elsewhere in Canada. The US has used them for 30 years, Québec for 20; BC uses them, though in a less formalized way than Ontario.

This section examines RRTs practicing in AA roles in several jurisdictions: Canada (including Ontario, Alberta, Manitoba, Québec), United States, United Kingdom, Australia and New Zealand. The discussion examines the AA role in terms of education, scope of practice, regulation and use of titles.

## AA – The Ontario Experience

### RRTs are Regulated Health Professionals

Respiratory Therapy is one of 23 health professions regulated under the *Regulated Health Professions Act* (RHPA). The RHPA includes a general Act, a Procedural Code for all of the regulated health professions, and profession specific Acts. The RHPA establishes Colleges that are responsible for regulating the practice of a health profession, developing and maintaining entry to practice standards and developing and maintaining standards of professional practice, knowledge, skill and professional ethics for its members.

In addition to identifying the authorized acts for the profession, the profession specific Acts contain a broad scope of practice statement. The intent of the RHPA is to provide a regulatory framework that protects the public while at the same time being flexible and allowing for the evolution of the professions. The controlled acts model recognizes that there are overlapping scopes of practice among various professions, and is based on the premise that some health care procedures have a more significant risk of harm than other procedures. The 13 controlled acts may only be performed by members of regulated health professions who are authorized to perform the act (or individuals who have been properly delegated authority to perform the act) (CRTO, 2009). See Appendix C for the list of Controlled Acts.

### **RRT Scope of Practice and Controlled Acts**

The scope of practice outlined in the Respiratory Therapy Act (RTA) is intended to be interpreted in a broad manner. “The practice of respiratory therapy is the providing of oxygen therapy, cardio-respiratory equipment monitoring and the assessment and treatment of cardio-respiratory and associated disorders to maintain or restore ventilation.” The authorized controlled acts are:

- 1.** Performing a prescribed procedure below the dermis
- 2.** Intubation beyond the point in the nasal passages where they normally narrow or beyond the larynx (i.e., endotracheal intubation, including nasal, oral, retrograde and bronchoscopic assisted; laryngeal mask insertion, nasogastric tube insertion, nasal airway insertion, esophageal obturator insertion, feeding tube insertion, transesophageal balloon insertion)
- 3.** Suctioning (i.e., nasopharyngeal, tracheal, nasogastric, and bronchoscopic) beyond the point in the nasal passages where they normally narrow or beyond the larynx (i.e., airway or esophagus including access by oral, nasal and artificial opening routes)
- 4.** Administering a substance by injection (i.e., intravascular – direct, below drip chamber, above drip chamber, under pressure; intramuscular, intradermal, sub-cutaneous) or inhalation (liquid, powder, aerosol, anaesthetic gas, non-anaesthetic gas, specialized gas, pressurized gas, vapour)

The controlled act ‘performing a prescribed procedure below the dermis’ is the only controlled act for which there is a specific regulation where the procedures are listed and separated into three categories; basic, added and advanced, based on the expertise required to perform the procedure or associated risk of harm in the event the procedure is performed incompetently. The CRTO requires RRTs performing advanced procedures below the dermis to undergo certification, and establishes criteria for certification programs. The prescribed procedures below the dermis authorized to RRTs are:

- 1.** Basic Procedures:
  - i Arterial puncture
  - ii Capillary puncture (finger or toe, ear lobe, heel, side/base of foot)
  - iii Tracheostomy tube change for an established stoma
  - iv Transtracheal catheter change for an established stoma

**2. Added Procedures:**

- i Removal of a canula (artery or vein, including the popliteal artery)
- ii Manipulation or repositioning of a canula (artery or vein including popliteal and pulmonary arteries, ECMO canula, cardiac bypass canula, auto-transfusion canula)
- iii Aspiration from a canula (artery or vein including popliteal artery and central artery or vein, ECMO canula, cardiac bypass canula, auto-transfusion canula)
- iv Venipuncture (including scalp veins in infants)
- v Suturing to secure indwelling canulae (artery or vein including popliteal and pulmonary arteries, ECMO canula in situ)
- vi Transtracheal catheter change for a fresh stoma that is less than seven weeks
- vii Tracheostomy tube change for a fresh stoma that is less than seven days but not less than 24 hours
- viii Manipulation or reposition of a canula balloon (Pulmonary Capillary Wedge Pressure (PCWP) balloon to determine wedge pressure or to unwedge a wedged balloon, Intra Aortic Balloon Pump (IABP) balloon to adjust mechanical cardiac assistance or reposition the balloon in life-threatening situations)

**3. Advanced Procedures:**

- i Insertion of a canula (radial artery, femoral artery, brachial artery, popliteal artery, post tibial artery, dorsalis pedis artery, peripheral vein, subclavian vein, internal jugular vein, femoral vein, umbilical artery or vein)
- ii Chest needle insertion, aspiration, reposition and removal
- iii Chest tube insertion, aspiration, reposition and removal

The CRTO has proposed amendments to this regulation including listing the procedures in two categories, basic and advanced; removing the certification requirement for performing procedures in the advanced category; and adding and reassigning some advanced procedures. (CRTO, 2004)

### **Orders, Medical Directives and Delegation**

Controlled Acts 1, 2 and 4 above can only be performed on the order of a member of the College of Physicians and Surgeons of Ontario (CPSO), the College of Midwives of Ontario (CMO), the Royal College of Dental Surgeons of Ontario (RCDSO), or a member of the College of Nurses of Ontario (CNO) who holds a certificate of registration in the Extended Class (EC), where permitted by law. An order can be written or verbal and must include the following information:

- when the order is given (includes date and time for critical care facilities)
- who the order is for (patient/client identification)
- who the prescriber is
- the details of the intervention so that it is clear what is ordered - details of the treatment, plan of treatment, diagnostic procedure, etc
- when the order is to be carried out
- how the order is to be carried out

A medical directive is an order for a range of patients who meet certain conditions. The essential elements of a properly constructed medical directive include:

- the name and description of the procedure, treatment or intervention being ordered
- specific patient conditions that must be met before the procedure can be implemented
- circumstances which must exist before the procedure can be implemented
- comprehensive list of contraindications to performing the procedure
- a list of health care professionals who may implement or perform the procedure and any educational requirements required
- the physician(s) authorizing the medical directive
- a list of administrative approvals from the facility with dates and signatures

RRTs can be authorized to perform additional controlled acts through delegation from another regulated health professional. Delegation is a process that is procedure specific and may also be specific to an individual patient, a specific patient population, a specific situation, a specific health care provider, groups of patient populations or health care providers (CRTO, 2006).

**RRT Responsibilities to the Public of Ontario**

RRTs are expected to maintain the standards of practice and to be competent, accountable and collaborative in providing quality health care to the public of Ontario, where:

- Competent means having the requisite knowledge, skills and judgement/abilities to perform safely, effectively and ethically and applying that knowledge, skills and judgement/abilities to ensure safe, effective and ethical outcomes for the patient
- Accountable means taking responsibility for decisions and actions, including those undertaken independently and collectively as a member of the health care team; accepting the consequences of decision and actions and acting on the basis of what is in the best interests of the patient
- Collaborative means working with the patient and other members of the health care team to achieve the best possible outcome for the patient including communicating and coordinating care provision with other members of the health care team (CRTO, n.d.)

**RRTs in the OR**

For several decades, RRTs have worked alongside anaesthesiologists in Canadian operating rooms (OR). The traditional role of the OR-RRT has included providing technical support to the anaesthesiologist for the proper use and maintenance of the anaesthetic gas machine, in addition to providing airway management. Over the past several years, this role has evolved into a more advanced and specialized practice with increasing responsibilities. In many Canadian hospitals, RRTs have undergone additional training in order to perform these duties, all under the authority of their respective departments of anesthesia. More recently, the position has evolved at a number of sites into a formalized job title of AA and there are training programs at a number of colleges within the province (CRTO, 2005).

## RRT Regulators, Professional Associations and Educational Institutions Respond

The National Alliance of Respiratory Therapy Regulatory Bodies (National Alliance) and educational institutions took the position that the RRT-AA role fell within the scope of practice of respiratory therapy. Additionally, they believed that RRTs assuming the role and responsibilities of AAs is in the public's best interest and could improve the safety and efficiency of anaesthetic care. (CSRT, n.d.)

As the discussions progressed, it became apparent that the lack of a common foundational knowledge document with which to create a curriculum resulted in lack of consistency in the training of AAs across Canada. Building on the foundational knowledge document for OR-RRTs, work began on developing a foundational knowledge document for AA curriculum development (National Alliance, 2003).

As the RRT role in the OR evolved to include more advanced and specialized roles with increasing responsibilities, RRTs pursued additional training in order to perform these additional activities. Although there are no requirements for certification processes for RRTs who practice as specialized OR-RRTs or RRT-AAs, it is an expectation that all RRTs practice only in the areas in which they are educated and experienced (CRTO, 2005; CSRT, n.d.).

## Development of Anaesthesia Care Teams (ACT) and AA Roles in Ontario

In February 2005, Ontario anaesthesiologists met in an attempt to bring to the attention of government and the public the shortfall in anesthesia provider numbers, and their ability to contribute to proposed targets for Wait Times Initiative. Anaesthesiologists were experiencing increased clinical demands, and recruitment and retention problems.

As part of the discussions, an Operative Anesthesia Committee (OAC) with representatives of the Ministry of Health and Long-Term Care (MOHLTC), the Ontario Medical Association (OMA) and Ontario's Anaesthesiologists formed to evaluate the problem. The committee recommended improvements to the system and looked at innovative ways to address their concerns.

The OAC recommended formation of ACTs with AAs to increase efficiencies in ORs and assume the responsibility of some services such as pre-assessment of patients prior to surgery, pain control after surgery, and light sedation in patients undergoing cataract surgery. This would effectively increase anaesthesia capacity and enable anaesthesiologists to expand the provision of operative anaesthesia, especially in the areas identified by government as being a priority. (Ontario Anaesthesiologists, n.d.)

In March 2007, the MOHLTC announced the creation of ACT Demonstration Projects. AA positions would be filled by RRTs and RNs, who would receive additional training to prepare them to take on the new role. The ACT would improve efficiency and cost-effectiveness, reduce surgical wait times and improve the quality of work life of anaesthesiologists. (MOHLTC, 2007)

The MOHLTC awarded funding to The Michener Institute to set up a 22-week training program for prospective AAs. RRTs and RNs with critical recent critical care or OR experience were eligible for the program.

The ACT Demonstration Projects occurred in two phases. In Phase 1, there were 37 AAs at 10 demonstration sites and 4 additional cataract centers. This part of the project supported the wait time strategy. Sites were chosen based on demonstrated need. The demonstration sites received funding to support ACTs for three years, ending March 31, 2010.

In, Phase 2, there were 30 AAs at 12 sites (including three nurse practitioners) focused on after hours, labour and delivery and out of OR activity. Funding was committed for 30 months, ending during the period of September 30, 2010 to March 31, 2011. (Beed, 2010)

Some hospitals elected to implement ACTs without demonstration site status or funding.

### Establishing the AA Role and Scope of Practice

Many welcomed the addition of competent and well-trained healthcare professionals to assist in the delivery of anaesthetic care in the OR. A model of an ACT already existed in the province of Québec, where Respiratory Therapists practice as AAs under a clearly defined legal status in the Code of Professions. However, there was a concern that elsewhere AAs have been introduced without a standard definition of their scope of practice and requirements for entry to practice with potential risk to quality anaesthetic care (Brown, 2007; Issa, 2007; Lalibert, 2007).

## The CAS Position

The CAS takes the “firm view that ensuring patient safety and optimal delivery of patient care in the perioperative setting requires that the practice of anesthesia remain physician-based” (CAS, 2008, p. 16). This position paper is based on the CSRT Foundation Knowledge document, is included in Appendix D and outlines the guiding principles, training and education, scope of practice (including technical, clinical, administrative, education and orientation duties) of AAs. The position paper attempts to balance the need for ensuring high quality patient safety and optimal delivery of patient care with the need to provide care in more efficient and effective ways.

There appears to be agreement between the anaesthesiologists and RRTs about the suitability of RRTs for the AA role. Where previously, the OR-RRT assisted the anaesthesiologist to accomplish what they were already going to do, the AA acts as a physician extender, taking on additional responsibilities, enabling the anaesthesiologist to accomplish more. The AA role is evolving into a very useful and skilled health care provider and they are carving out areas of expertise equal to some senior anaesthesiology residents.

The AA is the only non-anaesthesiologist who, in the CAS’ opinion, is capable of monitoring a stable anaesthetized patient under a general anaesthetic. The AA is able to respond to emergencies; recognise a problem, call for help and initiate resuscitation measures, in that order, following protocols and guidelines, within in 3 minutes of their occurrence. The ability to monitor patients alone and make these judgements is a quantum leap in clinical judgement and responsibility in the eyes of the CAS.

The CRTO considers the RRT-AA role, as defined by the CAS, within the scope of practice of respiratory therapy. The CNO takes the same position with the RN-AA. However, not all anaesthesiologists agree. Some believe the CRTO and the CNO have used the language in the RHPA, RTA and RNA in ways that it was not intended. For example, some argue that RHPA Controlled Act #5: *Administering a substance by injection or inhalation* was not intended to authorize RRTs to administer inhalation anaesthetics.



## RRT-AA Experience

RRTs were invited to complete a survey designed to capture their experiences and practices working in the OR. Others participated in telephone interviews as key informants. *Direct quotes from the survey respondents are indicated in italics.*

## Demographics

RRTs in the OR are mid-career in terms of age and tenure and there are slightly more men than women. Table 1 summarizes the demographic data.

Table 1: Demographics		
Gender	Responses (98)	%
Male	54	55.1
Female	44	44.9
Age (yrs)	Responses (99)	%
20-29	11	11.1
30-39	36	36.4
40-49	41	41.4
50-59	11	11.1
Over 60	0	0
Total RRT Experience (yrs)	Responses (99)	%
0-2	5	5.3
3-5	9	9.5
6-10	19	20
Over 10	62	65.2
RRT Experience in OR (yrs)	Responses (99)	%
0-2	23	23.2
3-5	32	32.3
6-10	16	16.2
Over 10	28	28.3

### ACT Demonstration Experience

Most of the survey respondents attended The Michener Institute (62.2%) for their AA preparation; a surprising number prepared in other institutions and settings (25%). Many, though not all, worked on the ACT Demonstration projects, working under the AA title. Table 2 summarizes their experiences:

Table 2: Preparation and Act Demonstration Experience		
Preparation	Responses (90)	%
The Michener Institute	56	62.2
Fanshawe College	4	4.4
Algonquin College	6	6.7
Other	25	27.8%
<b>Comments</b> <ul style="list-style-type: none"> <li>• 5 at Vanier College (may or may not have been required to do additional clinical hours at employer's request)</li> <li>• 5 at Thompson Rivers University</li> <li>• 2 incomplete and working</li> <li>• 1 at Dalhousie University</li> <li>• 1 not able to access program</li> </ul>		
Job Title	Responses (86)	%
AA	39	45.3
AA-RRT	13	15.1
RRT-OR	13	15.1
Manager/Charge/Senior	3	3.49
Other	20	23.3
Practice as AA as defined by ACT Demonstration Project	Responses (95)	%
Yes	74	77.9
No	21	22.1
<b>Comments</b> <ul style="list-style-type: none"> <li>• <i>Not all AA are RRT or RN</i></li> <li>• <i>Only with direct supervision for children mask ventilation or under emergency situation</i></li> <li>• <i>Provide technical and clinical support when AA not in house</i></li> </ul>		

Table 2: Preparation and Act Demonstration Experience		
Hospital is ACT Demonstration Site	Responses (97)	%
Yes	59	59.8
No	29	29.9
Not Sure	10	10.3
<b>Comments</b> <ul style="list-style-type: none"> <li>• <i>In role before ACT funding</i></li> <li>• <i>Role not deployed as originally defined</i></li> </ul>		
Member of ACT	Responses (95)	%
Yes	65	68.4
No	30	31.6
RRT-AA in ACT Demonstration Project	Responses	%
Yes	47	51.6
No	38	41.8
Not Sure	6	6.6

### RRT-AA Scope of Practice, Controlled Acts, Additional Competencies

The survey results show variations in deployment of AAs, scope of practice and interpretation of the RHPA, RTA, Controlled Acts. There is almost uniform expression that the RRT is well suited to the role, but an RRT requires significant additional preparation and when taking on the role, assumes significant responsibility and risk. Table 3 summarizes these findings.

Table 3: Scope of Practice, Controlled Acts, Additional Competencies		
Additional Controlled Acts or Competencies	Responses	%
No	63	72
Yes	24	27.6
<b>Controlled Acts</b> <ul style="list-style-type: none"> <li>• <i>Autologous blood recovery for transfusion x 2</i></li> <li>• <i>Energy (defib) x 3</i></li> <li>• <i>Energy (nerve stimulation) x 3</i></li> <li>• <i>Energy (transcutaneous cardiac pacing) x 2</i></li> <li>• <i>Energy (ultrasound) x 1</i></li> </ul>		

**Table 3: Scope of Practice, Controlled Acts, Additional Competencies****Additional Competencies (direct quotes from survey comments)**

- *Management of general anesthesia of stable patients, selection and administering of drugs as per medical directives to maintain anesthesia.*
- *Management of conscious sedation as per medical directives.*
- *Anticipate and assist the Anesthesiologist in Crisis situations in the OR.*
- *Knowledge of anesthesia machines for use, set-ups, troubleshooting, in-servicing competency at using various infusion pumps, fluid warming devices, cell-saving and autotransfusion units, pressure-monitoring devices, ultrasound units for the purpose of inserting pressure lines and regional blocks.*
- *Ultrasound interpretation during regional anesthesia/central venous cannulation, during endobronchial ultrasound.*
- *Direct bronchoscopy during percutaneous tracheostomy.*
- *Removal of an epidural catheter.*
- *Provision of conscious sedation, administration of sedatives/narcotics /antibiotics within limited parameters.*
- *Provision of GA for stable patients including administration of anesthetic agents, narcotics, muscle relaxants within limited parameters.*
- *Routinely insert IV's; give conscious sedation; monitor stable patients under general and regional anesthesia; giving appropriate fluid, vapour and drug therapy as required; assist with regional blocks, spinals and epidurals, assist with central line insertions and care thereafter, pre-op assessments.*
- *Abilities to identify and respond to different physiological responses a patient undergoes during sedation or anesthesia.*
- *Understanding of pharmacologic drugs and its effect during anesthesia. Ability to react in emergencies during induction and emergence from anesthesia.*
- *Increase knowledge and skills for emergency airway.*
- *Increase knowledge of cardiac monitoring and different arrhythmias and hemodynamic patient status.*
- *I feel these skills are unique and require specially trained individuals with a thorough understanding of Anesthesia to enact the Medical Directives and to take on the additional responsibility in this role*
- *Knowledge skill and competency manipulating anesthetic agents and other drugs to provide a safe induction, maintenance and emergence from anesthesia for a variety of different patient populations with great understanding and appreciation of the pre anesthetic plan and of crisis management. I believe this additional competency is an extension of my many years as a respiratory therapist but the education program definitely contributed to my in depth knowledge and focus of anesthesia in its many forms.*

### Valid Orders and Delegation

The RRTs reported working under orders, orders for protocols and medical directives, mostly from anaesthesiologists. Very few reported receiving delegation to perform additional controlled acts. It isn't clear if the delegated controlled acts they described reflect true delegation or a lack of understanding of the controlled acts actually performed or delegated. Table 4 summarizes the RRTs experiences in terms of types of orders, sources of those orders and delegated controlled acts.

Table 4: Valid Orders and Delegation		
<b>Valid Orders</b>	<b>Responses (78)</b>	<b>%</b>
Direct Written	57	73.1
Direct Verbal	69	88.5
Order for Protocol	37	47.4
Medical Directives	63	80.8
<b>Source of Orders</b>	<b>Responses (81)</b>	<b>%</b>
Anaesthesiologist	81	100
Doctor – other	38	46.9
Dentist	0	0
NP in OP clinic	3	3.7
<b>Accept Delegation of a Controlled Act</b>	<b>Response</b>	<b>%</b>
No	74	91.4
Yes	7	8.6
<b>Delegated Controlled Acts</b>	<b>Responses (8)</b>	<b>%</b>
1. Communicating a diagnosis...	2	25
1) 2. Performing a procedure below the surface of a mucous membrane...	2	25
2) 6d. Putting an instrument, hand or finger beyond the opening of the urethra	0	0
6e. Putting... beyond labia majora	0	0
6f. Putting... beyond... anal verge	1	12.5
6g. Putting... beyond... artificial opening	1	12.5
7. Applying... energy...	3	37.5
8. Prescribing, dispensing, selling... drug	0	0
12. Managing labour...	1	12.5

### **Direction and Supervision**

All RRTs reported they perform under the under the direct supervision of the anaesthesiologist. They described the guidelines that govern supervision as:

- anaesthesiologist is always available and able to attend
- anaesthesiologist is never responsible for more than one general anaesthetic at the same time
- anaesthesiologist is always present for induction, at least 30 minutes after induction, at least 30 minutes before emergence and during emergence from general anaesthetic
- maximum time for AA relief in stable general anaesthetic is 30 min and another anaesthesiologist is available during that time
- anaesthesiologist always reviews patient assessment, anaesthetic care plan and signs orders and anaesthetic record when AA provides conscious sedation
- orders, medical directives and/or policies and procedures guide the type of interventions AAs are allowed to make and when

### **General Comments from RRT-AAs**

Most RRTs indicated they had developed significant additional knowledge, skills and judgment and took on considerable additional responsibilities when they assumed the AA role. All were very happy with this career and professional direction and looked forward to more growth. Many believed they were working beyond the RRT scope of practice and controlled acts and expressed a desire to have the additional competencies and responsibilities recognized by the College in some form. A few stated that the work they performed as RRT-AA was entirely consistent with the RRT scope of practice and controlled acts.

### Evaluation of ACT Pilot Projects Phase 1

The ACT Implementation Advisory Committee evaluated how the pilot addressed its objectives and developed a plan to sustain the ACT model. At the end of Phase 1 there was/were:

- no increases in serious adverse events
- no safety concerns were identified with the implementation of ACTs
- evidence of practice changes
- positive feedback from AAs, anaesthesiologists and surgeons
- reduction in PACU time and hospital LOS, decreased cost per case and shorter wait times

### Key Recommendations from the Professional Practice and Education Working Group

The Professional Practice and Education Working Group of the ACT Implementation Advisory Committee made 24 recommendations about AA scope of practice, professional standards, regulatory requirements, training requirements, entry to practice, and continuing education (Appendix E). This is a summary of their recommendations:

- Establish ACT across province as anaesthesiologist led care model
- Establish reporting structures with dual accountability to Chief of Anaesthesia and professional practice leaders in each site
- Establish standard roles and responsibilities for AA and NP-A
- Regulatory colleges set out scope of practice and oversight of professionals
- Regulatory colleges, designate a common special category and protect title AA
- Establish funding models to support ongoing training and education (Beed, 2010)

### Educational Institutions' Perspectives

Some educators have indicated that to establish ACT across the province would challenge the educational institutions' capacity in terms of faculty numbers, teaching/learning spaces, clinical placements and mentors. The funding and tuition for longer-term program operations is likely to be different from what was available in the ACT demonstration projects. The Michener program resumed accepting applicants for a September 2010 intake. New tuition and fees for the program are approximately \$11,000. Under the Demonstration Project, tuition was heavily subsidized.

### Employers' Perspectives

The employers reported increased efficiency, quality, increased throughput and physician satisfaction (anaesthesiologist and surgeon) with the AA role. Because of the ACT, more patients in more situations receive better anaesthetic care.

In some facilities, the RRT-AAs now report to the Department of Anaesthesia instead of, or in addition to, the Respiratory Therapy professional leader or department. Dual reporting is challenging to manage and sole reporting to the Department of Anaesthesia distances the RRT-AA from their RRT colleagues.

There are concerns about consistency in AA scope of practice and supervision within and between practice sites. Institutions are resolving this issue within their walls by developing specific duties and associated protocols, medical directives and/or delegation and many are sharing their work with other institutions.



## AA – Other Canadian Experiences

Table 5 summarizes the findings of document review and key informant interviews about AA experiences in other Canadian jurisdictions. A full discussion of each example follows the table.

Jurisdiction/Title	Education	Regulation	Scope
Alberta RRT	College Diploma	CARTA	RRT = CAS
Alberta Respiratory Care Practitioner (RCP)	RRT + TBA	CARTA, separate class	<ul style="list-style-type: none"> <li>Independent, report to physician</li> <li>Care and monitor ASA Class I during routine surgery</li> </ul>
Manitoba Anaesthesia Clinical Assistant (ACA)	<ul style="list-style-type: none"> <li>2 years post RRT, RN or IMG</li> <li>With appropriate experience</li> <li>Dept of Anaesthesia at U of M</li> </ul>	CPSM	CAS
Quebec RRT	College Diploma	OPIQ	<ul style="list-style-type: none"> <li>RRT+CAS</li> <li>Work with surgeon for conscious sedation</li> </ul>

### Alberta - Registered Respiratory Therapist

The current definition of the AA role as established by CAS is considered within the scope of practice of RRT in Alberta and there is no separate designation or job title. The title AA is not used. No other profession is eligible to fulfill this role.

### Alberta - Respiratory Care Practitioner (RCP)

Advanced roles have evolved as requested by physicians based on patient needs (health human resources and/or remote populations). RCPs have additional competencies, require enhanced clinical judgement skills, require less supervision, directly report to physician (but are not necessarily under direct supervision). The legislation in Alberta does not recognize medical directives or delegation.

The first RCP role is in anaesthesia. With impending legislation, some RRTs working in the OR (for the purposes of this paper practicing as AAs) will be able to use the RCP designation. The RCP role identifies a scope of practice that goes beyond the CAS Position on AAs. RCPs will be able to take on the care and management of ASA Class I anaesthetic patients during simple routine surgery.

The College and Association of Respiratory Therapists of Alberta (CARTA) is establishing a separate register, authorization, continuing competency requirements, standards of practice, code of ethics, entry to practice and liability insurance requirements. (CARTA, n.d.)

#### **Manitoba - Anaesthesia Clinical Assistant (ACA)**

The College of Physicians and Surgeons of Manitoba (CPSM) established the Anaesthesia Clinical Assistant (ACA) role following the CAS guidelines, as strategies to address to health human resource shortages and employment of IMGs in healthcare. RRTs, RNs and IMGs with appropriate preparation and experience are eligible for admission into the two-year graduate certificate program at the University of Manitoba. The CPSM regulates ACAs; ACA are listed on the clinical register. (University of Manitoba, 2009; CPSM, 2007)

#### **Quebec - Respiratory Therapist (RRT)**

RRTs in Quebec have always had a significant role in the support and provision of anaesthesia. Regulated by the *Ordre professionnel des inhalothérapeutes du Québec* (OPIQ), entry to practice is based on completion of a six-semester college diploma based on a competency model. Anaesthesia is recognized in the legislation. About one-third of new graduates work as anaesthesia therapists; usually requiring approximately two years of mentoring in order to assume these responsibilities. There are approximately 600 RRTs working in the OR with more than 25 years of experience.

RRTs who work in the OR, administer regional anaesthesia and conscious sedation; their work is supervised by the surgeon, as anaesthesiologists are only funded to provide general anaesthesia. For general anaesthesia, an RRT works under the supervision of the anaesthesiologist and performs pre-operative assessments, assists in preparing the patient for induction, induction, monitoring and emergence. They may relieve the anaesthesiologist when the patient is stable. An anaesthesiologist is always available for assistance if the patient's condition changes, at which time the anaesthesia therapist would initiate appropriate resuscitation and summon help. The RRT practice is guided by physician orders, hospital policy and protocol and guidelines provided by OPIQ and *Collège des médecins du Québec* (OPIQ, n.d.)

## AA – International Experiences

Table 6 summarizes the findings of document review and key informant interviews about AA experiences in United States, United Kingdom and Australia and New Zealand. A full discussion of each example follows the table.

Jurisdiction/Title	Education	Regulation	Scope
USA Certified Registered Nurse Anesthetist (CRNA)	RN, MA	<ul style="list-style-type: none"> <li>National Board on Certification &amp; Recertification of Nurse Anesthetists (NBCRNA)</li> <li>Licensed at state level</li> </ul>	<ul style="list-style-type: none"> <li>Varies by state</li> <li>Independent to Supervised</li> </ul>
USA Anesthesiologist Assistant (AA)	<ul style="list-style-type: none"> <li>BSc</li> <li>+ 2-4 yr, possibly MSc</li> </ul>	<ul style="list-style-type: none"> <li>National Commission for Certification of Anesthesiologist Assistants (NCCAA)</li> <li>Licensed at state level OR work under physician's licence</li> </ul>	<ul style="list-style-type: none"> <li>Physician Extender under direct supervision of physician</li> <li>Same scope of practice as supervising physician</li> </ul>
UK Physician Assistant (Anaesthesia) PA(A)	<ul style="list-style-type: none"> <li>health professional or BSC</li> <li>Postgraduate Diploma in Anaesthetic Practice</li> </ul>	Royal College of Anaesthetists	CAS
Australia, New Zealand <i>"Assistant to the Anaesthetist"</i>	High school or RN with pro-rated training	unregulated	Similar to OR-RRT in Ontario

### United States - Certified Registered Nurse Anesthetist (CRNA)

Before 1937, when the American Medical Association endorsed anaesthesiology as a medical specialty, nurses were the primary and sometimes the only providers of anaesthesia care and pain management. Since that time, with a decline in physician interest in entering anaesthesia programs, the specialization has grown in popularity among nurses and has become a well-established role once again in the US, with up to 60 percent of all anaesthesia care provided by RNs and between 70 and 80 percent of that care in rural areas. In the US, CRNAs are nurses prepared at the graduate level and hold a high degree of autonomy and accountability in their roles.

CRNAs administer anaesthesia and anaesthesia-related care in four general categories:

- pre-anaesthetic preparation and evaluation
- anaesthesia induction, maintenance and emergence
- post-anaesthesia care
- perianaesthetic and clinical support functions.

CRNAs provide anaesthesia in collaboration with surgeons, anaesthesiologists, dentists, podiatrists, and other qualified healthcare professionals. When a CRNA administers anaesthesia it is recognized as the practice of nursing; when administered by an anaesthesiologist, it is recognized as the practice of medicine. All anaesthesia professionals provide anaesthesia to the same standard, regardless of whether their educational background is in nursing or medicine. (AANA, n.d.)

#### **United States - Anesthesiologist Assistant (AA)**

AAs have 24-48 months of post baccalaureate education and are certified by the National Commission for Certification of Anesthesiologist Assistants (NCCAA). They work under the direction of the supervising anaesthesiologist, in agreement with the guidelines established by the American Society of Anesthesiologists (ASA) Anesthesia Care Team (ACT), and in accordance with the American Academy of Anesthesiologist Assistants (AAAA) statement on the ACT. AAs are licensed as AAs or practice under the license of an anaesthesiologist by delegation.

The AA scope of clinical practice is essentially the same as that of nurse anaesthetists on the ACT. The anaesthesiologist, hospital credentialing body, state's board of medicine and any applicable state statute or regulation, usually defines the local scope of practice. The scope of practice includes:

- conducting pre-anaesthetic assessment and diagnostic studies
- establishing non-invasive and invasive routine monitoring modalities, as delegated by the supervising anaesthesiologist
- administering induction agents, maintaining and altering anaesthesia levels, administering adjunctive treatment, and providing continuity of anaesthetic care into and during the post-operative recovery period
- applying and interpreting advanced monitoring techniques
- using advanced life support techniques
- providing post-anaesthesia care
- evaluating and treating life-threatening situations on the basis of established protocols
- performing and monitoring regional anaesthesia (ASA, 2005)

**United Kingdom - Physician's Assistant (Anaesthesia) [PA(A)]**

The PA(A) is a highly trained and skilled individual who is qualified to administer anaesthesia under the supervision of an anaesthetist. Those who become PA(A)s are either health professionals or university science graduates who have undergone a 27-month programme of postgraduate training, leading to a Postgraduate Diploma in Anaesthetic Practice. PA(A)s are regulated by the Royal College of Anaesthetists (RCOA) and their scope of practice is similar to the RRT-AA working as a member of an ACT. (RCOA, 2009; RCOA, 2009)(See Appendix F.)

**Australia and New Zealand**

In Australia and New Zealand, the Assistant to the Anaesthetist is trained to assist the anaesthetist during anaesthesia (general, regional, local and or sedation) and is a major contributory factor to safe patient management. The assistant is essential for the safe and efficient conduct of anaesthesia and attends during preparation for and induction of anaesthesia, at short notice if required during the maintenance of anaesthesia and at the conclusion of anaesthesia. The assistant must remain under the immediate direction of the anaesthetist until instructed that this level of assistance is no longer required. There is no formal title for the role and entry to practice can be either high school graduate or registered nurse with the training requirements pro-rated by qualifications. There is no certification exam, but there are criteria for educational institutions that offer qualifying programs (ANZCA, 2008) (ANZAC, 2009). The Australia and New Zealand College of Anaesthesia Guidelines are in Appendix G.

## Findings - Advanced Practice Roles

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### Introduction

Any discussion about advanced practice roles relies heavily on research about the nursing experience. Much of the discussion relates to differentiating between Nurse Practitioners (NP), who are independent practitioners and have additional responsibilities for diagnosis and treatment, and other nursing roles associated with some form of specialization. More recently, the discussion has expanded to include the differentiation that occurs in other professions when individuals specialize.

There is little agreement on definition, titles, scope of practice, deployment within and across jurisdictions and professions of advanced practice roles. In spite of this difference, there is a universal adoption of advanced practice roles with great similarity across jurisdictions and professions in terms of rationale, tempered by legislative framework and funding models (Gardner, Chang, & Duffield, 2007). Given this lack of consistency, the term advanced practice is interpreted very generously in this section. This section:

- Outlines the rationale for and development of advanced practice
- Describes a model for advanced practice
- Identifies three different categories of advanced practice and differentiates between how advanced practice is conceptualized in the three categories
- Presents several models for regulating advanced practice roles
- Outlines the role of the regulator in advanced practice
- Describes the titles used in advanced practice
- Situates advanced practice in the rpha

In all cases, the discussion will focus on the Ontario or Canadian experience, and introduce examples to support the explanations.

## What Constitutes Advanced Practice?

Advanced practice may involve role expansion or role extension. In role expansion, the practitioner may develop the current role by taking on additional responsibility and often this evolves into a specialist role. In role extension, the practitioner takes responsibility for some tasks traditionally performed by other health care professionals. Generally, advanced practice serves as the umbrella term for both forms of role development. Most advanced practice roles begin when practitioners develop clinical expertise, and clinical expertise is the most obvious manifestation of advanced practice. However, there are other domains of practice in advanced practice roles. And, like clinical expertise, there is a progression from novice to expert in the provision of advanced care in all domains. Most health care professions increase the level of education required for entry to practice as advanced practice roles evolve to reflect the enlargement or extension of the role. Baccalaureate preparation and post graduate education becomes the standard for advanced practice. (Barnes, 2003; Merendino, 2005; Mishoe, 1997; Shelledy, 2005).

### Strong Model of Advanced Practice

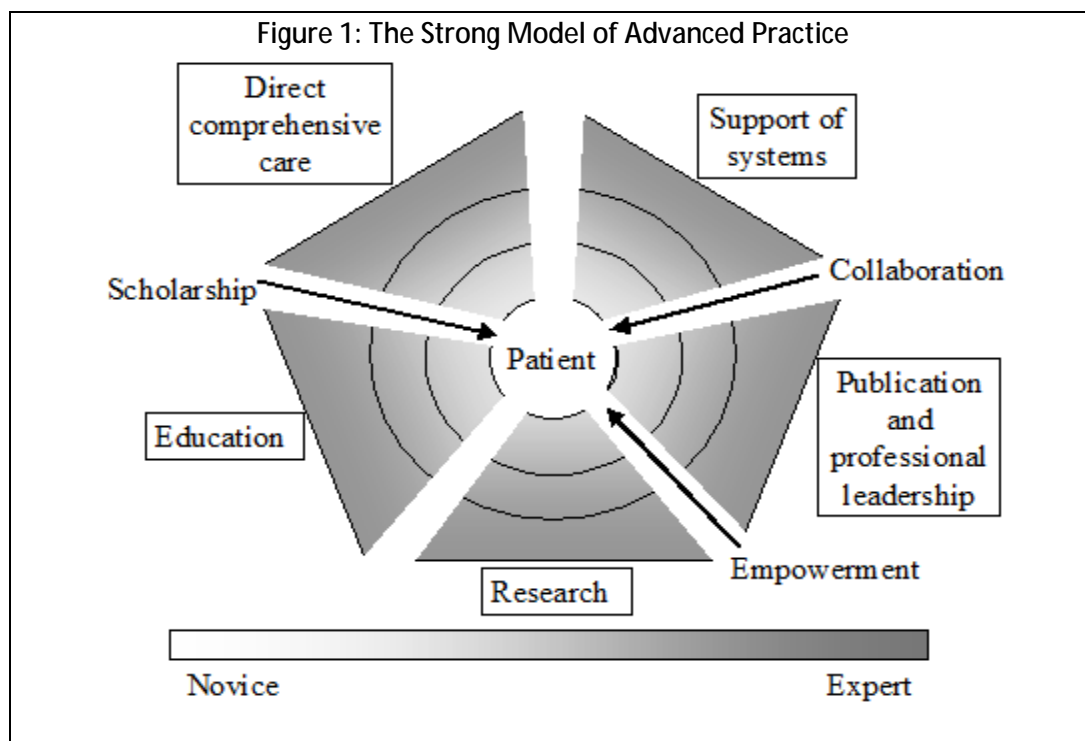
The Strong Model of Nursing Practice, Figure 1, (Ackerman, 1996; Mick, 2000) was developed in 1994 at the University of Rochester Medical Center. The Strong Model invites practitioners to examine their practice beyond clinical practice and supports increasing educational preparation, but does not inform discussions or decisions about how to regulate advances in practice. Although developed to guide nursing practice, other professions have found it a helpful model, and it forms the basis of this discussion.

The Strong Model (Mick, 2000) defines five domains of practice that make up an advanced practice role:

1. ***Direct Comprehensive Care*** includes patient focused activities that include assessments, procedures, interpretation of data and patient counselling
2. ***Support of Systems*** refers to the contributions professionals make to standards, quality initiatives, development of policies, procedures and practice guidelines to optimize practice within an institution
3. ***Education*** encompasses contributions made to caregiver, student and public learning related to health and illness
4. ***Research*** implies that the practice evolves through scientific inquiry and uses evidence to direct care

5. **Publication and Professional Leadership** results in the promotion and dissemination of professional and health care knowledge beyond the individual practice setting
6. The fulfillment of each domain varies by position and is dependent upon the needs of the population served, the practice setting and the incumbent's interests and strengths. Benner's (1984) principles of professional advancement are built into the model to illustrate five levels of proficiency, novice, advanced beginner, competence, proficient, expert.

The domains are not mutually exclusive in that some aspects of practice may fall within the bounds of more than one domain.





The three conceptual strands describe the attributes of practice, the approach to care and the professional attitude:

1. **Collaboration** supports the belief that the unique skills and abilities of various care providers in combination, contribute to the goal of excellent patient care, and reflects the multidisciplinary nature of the provision of care with complex clinical situations or settings
2. **Scholarship** signifies the constant inquiry that underlies every professional action and decision
3. **Empowerment** reflects the authority to identify and analyze relevant problems and to develop, implement and evaluate a plan of action within their scope of practice.

## Drivers of Advanced Practice Roles

Economics, and change and innovation are the drivers of evolving advanced practice, where:

- Economics refers to health human resources supply, demand and distribution, funding models
- Innovation and change refers to knowledge, practices and technology.

Having these drivers suggests that advanced practice is a moving target, as eventually the advanced practice becomes the status quo for a profession.

### Economics

The best example of economic factors driving an advanced practice role is the introduction of the Nurse Practitioner (NP). The concept of advanced practice has been around in Canada, since the 1960s, when the role of nurses expanded dramatically, to improve access to care in rural and remote communities. But it wasn't until the 1970s that nursing schools implemented formal programs and started graduating NPs.

In the 1980s, most NP initiatives disappeared, due to a perceived oversupply of physicians and cuts to the nursing work force. It was not until the 1990s when governments began to cut health spending, that the way healthcare is delivered came under scrutiny. Growing access problems, particularly in primary care, renewed interest in NPs. But lack of legislation and regulation tied the hands of NPs and their potential employers.

In 1996, Alberta became the first province to recognize registered nurses who provided additional services. All other provinces eventually followed suit. Last year, Yukon became the last jurisdiction to adopt legislation allowing NPs.

However, the number of NPs remains low because they are still largely constrained by legislation and funding models that prevent them from practicing their full range of capabilities. In some provinces, NPs operate under medical directives. In other jurisdictions, they are limited to the types of tests, treatments and drugs they can order.

### **Innovation and Change**

The scientific basis for care continuously evolves due to ever-increasing knowledge and advances in technology to provide new ways to diagnose and treat patients. The increased volume and complexity of care drives the growth and development of the number, type, scope and professional nature of healthcare providers.

The profession of respiratory therapy is but one example (Merendino, 2005; Shelledy, 2005). In the mid-20th century, the scope of practice of the RRT was the provision of oxygen and other inhalation treatments to hospital patients with cardiopulmonary disease. Since then, the development of new technology and equipment and the establishment of the scientific basis for care modalities, created opportunities to provide care for patients requiring mechanical ventilation, cardiopulmonary diagnostic testing, long-term oxygen therapy, etc. in hospitals, clinics, long-term care facilities and homes. The role of the RRT expanded when the profession (including educational preparation) responded to meet the evolving demands on practitioners for patient care.

Consistent with this theme, as the scope of practice continues to evolve, so too does the specialization of practitioners. In respiratory therapy, there are therapists with more active roles in more practice locations, patient populations and modalities of care. (Mishoe, 1997)

## Categories of Advanced Practice

Given the wide range of expression of advanced practice roles, some attempt to sort them into categories based on the experience in Ontario and Canada is warranted. Table 7 summarizes the findings of document review and key informant interviews about categories of advanced practice roles. A full discussion of each category with examples follows the table.

Category	Education	Characteristics	Examples
Independent Practice	Baccalaureate or Master's prepared	<ul style="list-style-type: none"> <li>Independent practice</li> <li>Significant additional scope of practice and controlled acts</li> </ul>	<ul style="list-style-type: none"> <li>RN(EC) aka NP</li> </ul>
Physician Extender	College or Baccalaureate	<ul style="list-style-type: none"> <li>Direct supervision by MD</li> <li>Orders, medical directives, delegation</li> </ul>	<ul style="list-style-type: none"> <li>Physician Assistant</li> <li>Paramedic</li> <li>Clinical Specialist Radiation Therapy</li> </ul>
Clinical Specialization	Wide variety, usually Baccalaureate plus...	<ul style="list-style-type: none"> <li>Orders, medical directives, delegation</li> <li>Clinical expertise, leadership, research, teaching, administration functions</li> </ul>	<ul style="list-style-type: none"> <li>PT - Musculoskeletal</li> <li>Clinical Nurse Specialist</li> <li>OT - Hand Therapy</li> </ul>

### 1. Independent Practice

The NP is the only example in Ontario of a non-physician advanced practice role that operates independently. NPs are Masters' prepared nurses with advanced preparation in diagnostics and prescriptive practices, grounded in the discipline of nursing, who may function as independent practitioners. They are part of a separate class of nurses established by regulation. By virtue of their membership in this class, they have separate entry to practice requirements, scope of practice, controlled acts, exclusive use of title. The extended class was created because the current RHPA and Nursing Act did not provide the necessary legislative framework to support the role. The NP role formed the basis of the criteria for advanced practice in the Strong Model.

## **2. Physician Extenders**

A physician extender (PE) is a health care provider who is not a physician, but who performs medical activities typically performed by a physician and follows the current physician-centered medical models of care. PE scope of practice mirrors that of the supervising physician, which allows the physician in practice to treat more people than they would working alone.

PE roles include physician assistants (PA) and anaesthesia assistants (AA). New categories of PEs continue to develop (e.g., RN First Assistants who serve in surgery, Nurse Endoscopists, advanced care and critical care paramedics).

The extent to which other currently established health professionals provide care under their own practice in collaborative models or act as physician extenders varies according to the context and need.

The PE role may meet the criteria for advanced practice based on the degree to which direct care is comprehensive, and/or the role embraces the other domains and/or the level of academic preparation.

## **3. Clinical Specialization**

Clinical Specialists are regulated health professionals with additional educational preparation and experience that specialize in:

- practice locations, such as emergency
- populations, such as pediatrics
- diseases, such as breast cancer
- modalities, such as surgery

They provide direct care, expert consultation to other care providers, and implement system changes to improve health care delivery. They work within the legislated scope of practice or have additional practice authority by statute or delegation. Examples of health professionals with clinical specializations include Wound Nurse and Hand Therapist.

The clinical specialization meets the criteria for advanced practice based on the degree to which direct care is comprehensive, and/or the role embraces the other domains and/or the level of academic preparation.

## Role of the Regulator in Advanced Practice

Many advanced practice roles evolve in environments that are uncontrolled and/or unpredictable and/or more complex. All of these conditions increase the risk to the patient and practitioners must adapt by developing additional competencies, demonstrating good judgment and clinical sense.

The regulator must determine the:

- degree to which advances in practice fall within the profession's legislated scope of practice and authorized controlled acts
- frequency and prevalence of the practice advances
- whether the current practice guidelines, policies and procedures continue to protect the public and respond accordingly.

## Models of Regulation

Based on the Canadian experience, health professionals are regulated eight ways, summarized in Table 8. Not all of the mechanisms relate specifically to advanced practice, but they are included for completeness. A full discussion of each category and an example follows the table.

Table 8: Eight Ways Health Professions are Regulated in Canada		
Method	Example	Category
1. Unregulated	PA Cardiovascular Perfusion	PE Clinical Specialization
2. MOHLTC	Paramedic	PE
3. College of Physicians and Surgeons (Manitoba)	PA Anaesthesia Clinical Assistant	PE PE
4. Devolve to a new college(self regulation)	Midwifery Cardiovascular Perfusion	Independent Practitioner RHP under consideration
5. Extended Class By Regulation under RHPA	NP	Independent Practitioner
6. Additional Practice Responsibilities By Statute under RHPA	Physiotherapist	Clinical Specialization PE
7. Delegation and Medical Directives At Institutional level under RHPA	AA	PE
8. RHP	Hip Replacement Program (Physiotherapy)	Clinical Specialization

### 1. Unregulated

Some professions, which could be considered advanced practice roles in Ontario, are not regulated. Two examples are Physician Assistant and Cardiovascular Perfusion.

#### *Physician Assistant*

PAs are prepared at the baccalaureate level at McMaster University and the University of Toronto. Academic program entry requirements include a combination of a minimum of two years of undergraduate work (program of

study and academic performance is established independently at each school) and pre-admission experience (that may or may not include experience in health care). IMGs who meet the eligibility requirements have been accepted into both programs.

Graduates of these professional degree programs are eligible to undertake the National Physician Assistant Certification Examination to earn the right to be called Canadian Certified Physician Assistants (CCPA).

### ***Cardiovascular Perfusion***

Cardiovascular Perfusionists (CVP) are members of a surgical team whose primary role is to conduct cardiopulmonary bypass using a heart-lung machine and other ancillary equipment. They closely monitor the patient's blood flow and other vital signs during open-heart surgery and are responsible for administering intravenous fluids, blood products and anaesthetic drugs. CVPs are also experts of other life support equipment such as ventricular assist devices and intra-aortic balloon pumps.

The CVP program at The Michener Institute is the only Canadian program and is CMA accredited. Applicants to the program must have either a bachelor's degree and RRT or RN and one year of critical care experience within the last 5 years; or a bachelor's degree with specific health sciences course work and minimum grades. Again, IMGs who meet the eligibility requirements have been accepted into the program.

Graduates of this program are eligible for:

- Certified Clinical Perfusionist (CPC) designation when they hold a valid Certificate of Qualification through membership in the Canadian Society of Cardiovascular Perfusion and successful completion of the Credentialing Examination.
- Certification in Clinical Perfusion (CCP), attained by satisfactory performance on the American Board of Cardiovascular Perfusion certification examination.

Because there is no regulatory college for CVP, RRTs who pursue this profession and wish to use the title RRT while practising as a CVP must maintain their registration with the CRTO in the active category of registration. The CVPs are investigating the benefits of having a regulatory college. This is not a relevant example at this time because AAs are members of Regulated Professions.

## 2. Regulated by MOHLTC

The MOHLTC regulates paramedics in Ontario under the auspices of the Ambulance Act. A paramedic has specialized competencies, has successfully completed the base hospital certification program, is employed by an ambulance service and is authorized to perform one or more controlled medical acts under the authority (i.e. delegation) of a base hospital medical director. All paramedics who practice in Ontario require the Advanced Emergency Medical Care Assistant (AEMCA) credential. Graduates of approved programs are eligible to take the Ministry of Health exam for Advanced EMCA. Ministry regulations require this certification for full-time employment in Ontario. There are three levels of paramedic qualification; all are authorized by the medical director of a base hospital to perform increasingly more sophisticated controlled acts: Primary Care Paramedic, Advanced Care Paramedic, Critical Care Paramedic.

The Paramedic Association of Canada developed the National Occupational Competency Profile for Paramedics. The CMA administers the national accreditation process for paramedic training. In Ontario, the Ministry of Training Colleges and Universities (MTCU) approves post secondary programs, both public and private. The Ontario Paramedic Association is facilitating paramedicine's inclusion in the RHPA as a regulated health profession. The MOHLTC is not likely to be interested in assuming responsibility for regulating AA practice.

## 3. Regulated by College of Physician and Surgeons (Manitoba)

Although this model does not currently exist in Ontario, the College of Physicians and Surgeons of Manitoba (CPSM) regulates two professions in addition to physicians: Anaesthesia Clinical Assistants (ACAs) and PAs. This approach has been identified as an appropriate mechanism for regulating PAs in Ontario and a possible resolution to regulating the AA role.

### *Anaesthesia Clinical Assistant*

A two-year program, offered at the University of Manitoba and open to RRTs or RNs licensed to practice in Manitoba, or IMGs with experience (Anesthesia or Emergency or Critical Care) who have graduated from a recognized and accredited university/college acceptable to the CPSM and have two years critical care or anesthesia-related operating room experience within the past 5 years.

Graduates of the program become members of a new profession, are eligible for listing on the medical register of the CPSM as ACA and must fulfil the annual licensing/registration requirements of the CPSM. Their positions are non-union and they report directly to the physician(s) they assist. (CPSM, 2007; University of Manitoba, 2009)



#### 4. Devolve to a new college (Self-regulation)

##### *College of Midwives of Ontario*

Midwives are independent RHPs who provide primary care to women and their babies during pregnancy, labour, birth and the postpartum period. As primary care providers, midwives may be the first point of entry to maternity services, and are fully responsible for clinical decisions and the management of care within their scope of practice. Midwives provide the complete course of low-risk prenatal, intrapartum and postnatal care, including physical examinations, screening and diagnostic tests, the assessment of risk and abnormal conditions, and the conduct of normal vaginal deliveries. Midwives work in collaboration with other health professionals and consult with or refer to medical specialists as appropriate. Midwives attend births in hospitals, birth centres and at home.

Most people think of nursing when they think of midwives. However, in Ontario, January 1, 2010 marks 16 years of midwifery as a RHP in Ontario. Entry to practice follows graduation from a four-year degree, and there is no admission requirement that includes nursing. As such, Midwifery is an example of an advanced practice role that evolved to a new profession - a non-physician with independent practice (CMO, 2009).

If the CVP group pursues self-regulation under the RHPA, they would join the midwives as examples under this category. And, AAs may see this as an option they could pursue.

#### 5. Extended Class established by Regulation

##### *Nurse Practitioner*

In 1997, the MOHLTC identified the NP role as part of an initiative to provide primary health practitioners to fill human resource needs that resulted from cutbacks in medical education and resident positions. However, meeting this need is not in the CNO regulatory mandate; the MOHLTC established the need and set timetable and the CNO set regulatory framework. The NP role at that time was limited to primary care. Expansion of the NP role was opened to other nurses practicing in acute care settings who felt they were eligible for extended class.

Although the RN title is very flexible under the RHPA, the proposed scope of practice statement and controlled acts of NPs could not be met under the existing CNO scope of practice statement and controlled acts. Regulating the practice of the proposed NPs, required access to additional controlled acts and the regulations under the Nursing Act were changed to accommodate an extended class (EC) of nurses.

NP is a protected title in Ontario; only nurses registered in the EC can use this title. There are four Nurse Practitioner specialty certificates in the EC: NP-Primary Health Care, NP-Paediatrics, NP-Adult and NP-Anaesthesia. Registration in the EC gives nurses the legislated authority to autonomously perform controlled acts not authorized to RNs and RPNs.

RN(EC)s are expected to demonstrate competence in health assessment and diagnosis, health care management and therapeutic intervention (including pharmacological, complementary and counselling), as well as in health promotion and the prevention of illness, injury and complications. They are also expected to understand the professional roles and responsibilities associated with being a member of the EC.

To register in the EC, a graduate of an approved nursing program must demonstrate she or he has the advanced knowledge, skill and judgment to provide a wide range of health services to the public. The requirements for entry into the EC include:

- recent evidence of safe practice in an advanced practice role
- successful completion of an approved NP program for a specialty certificate in the EC
- successful completion of an approved exam for the specified specialty certificate (CNO, 2009)

This isn't a legitimate option for AAs at this time, because the RNs in the AA role are not considered eligible for EC by the CNO.

## **6. Additional Practice Authorities established by Statute**

### ***Physiotherapy***

In contrast to the nursing experience, the College of Physiotherapists of Ontario (CPO) established additional practice authorities in the Physiotherapy Act during HPRAC's review of the physiotherapy scope of practice. The CPO and the Ontario Association of Physiotherapists jointly proposed changes to the scope of practice and controlled acts or components of controlled acts and removal of limitations in other statutory provisions that more accurately reflected physiotherapy practice. They sought several changes to the scope statement, available authorized acts and enabling elements of other statutory measures. The thrust of the changes align current physiotherapist competencies with current practice and promotes flexibility of the physiotherapy skill set to the advantage of health system transformation.

The proposed changes reflect national and international models, and the RHPA generally, which promotes flexibility, portability, ease of application and innovation at the point of care. The changes were coupled with appropriate accountability measures via the regulatory rigour of College standards and regulatory mechanisms related to controlled acts.

Their submission advocated for increased autonomy of physiotherapists within the scope of practice and respected individual competence. It promoted increased efficiencies by eliminating the need for medical directives where not warranted, and permit a physiotherapist to fully collaborate, using a proven skill set, with all health care providers to improve access to care and better outcomes for Ontarians.

Additionally, they proposed to facilitate advanced practice roles by a flexible and more system responsive approach, by authorizing the controlled acts to physiotherapists who have met the standard and regulatory requirements of the College to perform them. This allowed the roles to be tailored to the local patient and system needs rather than being bound by a separate class through registration that cannot be altered easily as the system evolves. This approach is familiar to the profession as it retains exactly the same model for performing controlled acts as currently exists. A physiotherapist would only be able to perform the controlled acts authorized to the profession in accordance with professional standards of practice. Any performance of a controlled act by a physiotherapist must meet the Standard of Practice set by the College. This standard notes that registered physiotherapists may perform a controlled act or a component of a controlled act when they are acting within the scope of practice of physiotherapy and:

- the patient’s assessment results warrant the performance of the act
- they are authorized to perform it
- they are competent to perform it
- they are able to manage the reasonably foreseeable outcomes related to the performance of the controlled act
- they accept personal accountability for the performance of the act
- they meet any other statutory, regulatory and professional responsibilities that apply

The standard also contains specific expectations as to how physiotherapists should obtain the needed competencies to perform controlled acts. Physiotherapists will need to be able to demonstrate successful completion of educational programs that have the following components:

- a structured theoretical component that includes information on the indications, contraindications and risks associated with the performance of the controlled act
- a practical component that includes both information on the technical performance of the controlled act and an opportunity to perform the controlled act(s) under supervision
- an assessment method that evaluates theoretical and practical knowledge associated with the safe and competent performance of the controlled act(s).

The standard also includes expectations for registrants to maintain their competence through continuing education programs that include updated theoretical and practical knowledge:

- an annual registration declaration on which controlled acts the physiotherapist is performing
- a requirement to report post graduate education achieved related to the relevant controlled act
- an opportunity to roster on the public register physiotherapists performing particular controlled acts
- adherence to the professional misconduct regulation which defines misconduct as, among other things, “failing to maintain the standards of practice of the profession”
- adherence to the professional misconduct regulation which will add an additional definition of misconduct as “performing a controlled act that was delegated to the member by another person unless the member has the knowledge, skills and judgement to perform the controlled act”
- random practice assessments of those physiotherapists performing controlled acts in keeping with the current QM program

The resulting Bill 179, the Regulated Health Professions Statute Law Amendment Act, was passed by government in December 2009 and is expected to be proclaimed in late 2010. Changes to the Physiotherapy Act will come into effect over the next two years (Woodhouse, 2006; CPO, n.d.).

This approach to advanced practice clearly meets the Strong Model for Advanced Practice.

## 7. Medical Directives and Delegation at Institutional and Individual Level

### *Anaesthesia Assistant*

AAs in Ontario are specifically trained RRTs or RNs whose professional activity follows the CAS Position Paper on AA. The AA role is not a substitute for anaesthesiologists; rather they are authorized provide anaesthesia assistance throughout the continuum of anaesthesia care as part of the ACT. Both the CRTO and CNO consider the AA role within the current scope of practice of the RRT and RN respectively. Both acknowledge the need for additional preparation and experience for members to assume the role. (CNO, 2009; CRTO, 2005)

The current deployment of the RRT-AA and RN-AA roles as members of the Anaesthesia Care Team (ACT) operate under orders, medical directives, delegation and associated policies and guidelines that are established and approved based on the practices in each institution.

## 8. Advanced Practice' considered to be within an existing scope of practice.

The RHPA gives flexibility to self-regulating professional groups through scope-of-practice and controlled acts models. The flexibility of the scope of practice statements and controlled acts models allows roles to advance evolve in a safe manner and makes it difficult to determine what advanced practice actually is. Advanced practice roles exist in almost every profession and are often associated with unprotected titles that reflect the specialization. Experienced and specialized practitioners who have additional academic preparation and expertise who work within the scope of practice often fulfil a leadership role within a special skill set and innovate by linking research and practice in new areas of practice; reflecting criteria established by the Strong Model of Advanced Practice.

The College of Medical Radiation Technologists of Ontario (CMRTO) governs five specializations of medical radiation professionals and advanced practice is difficult to define. Some members of the college have very specific practices that are localized and are considered advanced practice roles. However, they still work under an order from a physician.

The CMRTO used the HPRAC review to modernize the scope of practice and controlled acts to reflect current practice and elected not to pursue advanced practice because there was not sufficient commonality or volume and the current legislative framework allows these roles to advance in a safe manner. Even a new role, a successful pilot role under the Health Force Ontario pilot, the Clinical Specialist - Radiation Therapy who counsels patients and prescribes ionizing radiation for palliative patients is likely to continue for a long period, is managed under the current regulatory framework.

There are many examples of regulated health professionals who develop specialization, continue to practice under the RHPA and associated Professional Act without additional regulations, and identify their specialization through job titles or other credentials. Examples:

- Clinical Nurse Specialist, Wound Nurse, Occupational Health Nurse, Transport Team RN
- Hand Therapist (OT), Cardiorespiratory Physiotherapist, Special Imaging RT(NM)
- Neonatal RRT, Homecare RRT, Transport Team RRT

## Use of Titles

The titles used by advanced practitioners range from restricted titles, job titles, to titles informed by credentials (either educational or those based on professional affiliations) and are specific to the profession and jurisdiction.

### Restricted titles

A title, which may or may not include additional modifying words, that is given legal protection in a profession specific act. The restricted title indicates that a person is a registered member of that college. Only one advanced practice role with a restricted title exists in Ontario, RN(EC).

### Job titles

Job titles are the titles practitioners use in their employment circumstances. Job titles indicate an individual's organizational role and a clinician should not use a job title that contravenes their College's standard. Except in circumstances where a job title is the same as the restricted title, job titles do not have legal protections. There are many examples of advanced practice roles where the job title is the identifier: OR-RRT, Wound Nurse, Hand Therapist.

### Credentials

Credentials are a general term for a variety of degrees, qualifications or designations, etc. granted by agencies. These agencies include professional associations, academic institutions and educational bodies. There are many examples in the medical and dental profession where additional credentials establish the advanced practice role within the scope outlined by the RHPA. The credentials for Family Doctor are CFPC with certification awarded by the College of Family Physicians of Canada.

### *Education credential*

Education credentials are degrees, diplomas or certificates conferred by an institution that has the legal authority to grant same in a particular jurisdiction. Some RHP use both their legislated title and their educational credentials: Nurses and

Physiotherapists in Ontario use the title Physiotherapist or Registered Nurse respectively and add their educational credentials to their title.

***Professional credential***

Professional credentials are the designations conveyed by membership in professional organizations, often associated with a form of entry to practice scrutiny. Some Physician Assistants in Canada include their certification with the Canadian Association of Physician Assistants as CCPA. (CAOPA, n.d.)

## Summary

Consistent with the literature findings, there is great variation in how the advance practice roles are deployed in Canada. All roles seem to evolve from increased specialization and expertise in clinical practice. However, other domains of practice associated with professionalism are part of the role and most advanced practice is supported by academic preparation at the baccalaureate level.

There are models that guide the development and understanding of advance practice roles. However, in practice there is no agreement on what constitutes an advanced practice role, and how titles are used and protected. The legislative framework for regulation is a large factor in how advanced practice roles evolve and grow. In Ontario, the RHPA and associated profession specific Acts were designed to be flexible and allow for the evolution of the professions.

These variations make it difficult to establish national parameters for professions or similar approaches across professions within a single jurisdiction. With these variations comes inconsistency in title and role, increase in potential risk to patient and associated challenges to regulators. Additionally, the lack of consistency makes it difficult for regulators and legislators to manage and respond to issues of labour mobility and workforce diversity.

In spite of these difficulties, the Canadian experiences offers different ways to conceptualize advanced practice roles in order to address the issue of RRT-AAAs.

## Discussion

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### Advanced Practice is Difficult to Define

There continues to be great variation within and across jurisdictions and professions in terms of how advanced practice roles are conceptualized, deployed and regulated. In Ontario, the RHPA and profession specific Acts are not well understood, and different professions interpret the controlled acts differently.

The RHPA permits flexibility in practice and evolution of roles. This approach to self-regulation makes it difficult to assign advanced practice status to practice specialization. Practice is evolving rapidly and it is an elusive concept to capture in regulation.

### AA Scope of Practice in Ontario

Generally, AAs assist anaesthesiologists in the provision of anaesthetic care. AAs provide conscious sedation in consultation with the supervising anaesthetist and can relieve an anaesthetist caring for an uncomplicated stable patient during routine surgery for short periods. Most work as part of an ACT. All AAs work under the supervision of an anaesthesiologist. However, based on survey results, there is discrepancy in how RRTs understand the *Respiratory Therapy Act* or the Controlled Acts as they apply to the AA role.

The AA participates in pre-operative assessment, anaesthetic care planning, pre-anaesthetic preparation of the patient, anaesthetic induction, monitoring and emergence, and post-operative anaesthetic care. They insert and remove lines, apply and discontinue monitors, intubate and extubate, administer drugs, monitor patients (including procuring lab samples), interpret vital signs and tests, support vital functions, recognize problems, initiate resuscitation measures and maintain equipment. To perform these activities, they require considerable knowledge and skill and clinical judgment.



The RRT scope of practice and authorized controlled acts are consistent with the AA scope of practice. In addition, RRT-AAs need access to the following controlled acts:

**6. *Putting an instrument, hand or finger***

**iv. *beyond the opening of the urethra*** (for the purposes of urinary catheterization)

**vi. *beyond the anal verge*** (for the purpose of rectal temperature monitoring)

**7. *Applying or ordering the application of a form of energy prescribed by the regulations under this Act*** (for the purposes of defibrillation, transcutaneous cardiac pacing, nerve stimulation to assess level of anaesthesia, ultrasound for placement of lines)

Access to these controlled acts occurs through the process of delegation. If these additional controlled acts are performed frequently enough to render delegation onerous, authorization by identifying additional practice authorities in the RTA (as the CPO did in the Physiotherapy Act) would promote efficiencies.

## AA Title

In Ontario, the role is open to both RRTs and RNs. The title AA is not protected, it is a job title. Many feel title protection, linked to a standardized scope of practice and educational program is an important element of protecting the public because both RRTs and RNs work in the OR in many different capacities. AA seems to be the title that is most commonly used.

## Is the RRT-AA an Advanced Practice Role?

RRTs who work in AA roles bring considerable additional competencies to their role and they assume greater responsibilities that require them to exercise significant clinical judgment. But does that mean the role is “advanced”? This section tries to answer this question by comparing the AA role to the criteria for advanced practice outlined in The Strong Model of Advanced Practice and the precedents established by other specializations in other professions.

### **According to the Strong Model of Advanced Practice**

When viewed in light of the Strong Model of Advanced Practice there isn't sufficient difference in the domains of practice (Direct Comprehensive Care, Support of Systems, Education, Research, Publication and Professional Leadership) between the RRT practice and AA practice to justify advanced practice status. Although, the direct comprehensive care provided by AAs is advancing, the other domains have not evolved correspondingly. Most advanced practice roles have, as a minimum baccalaureate preparation, and carry a certain level of autonomy and independent decision making accompanied by postgraduate education.

### **Categories of Advanced Practice**

When compared to the different categories of advanced practice, it appears that the AA role is more in keeping with a physician extender role. The AA role description, relationship with the physician and level of supervision most closely resembles the physician extender role. The AA is not an independent practitioner; they work under direct supervision of the anaesthesiologist and this level of supervision is inconsistent with the independent practitioner role. One could make an argument that the AA role is a clinical specialization in that they specialize in the care of the anaesthetic patient.

Although the AA role does fit into one of the categories associated with advanced practice, this may not be sufficient to declare it “advanced practice.”

### **Regulatory Approach to AAs**

Of the eight regulatory approaches discussed earlier in this paper, a move to unregulated status (as in the case of PAs) or regulation under the MOHLTC (as in the case of paramedics) is unlikely and not consistent with advanced practice status. The extended class applies only to RNs working as NPs and the AA role does not qualify for extended class in the CNO.

AAs could apply for self-regulation under the RHPA as an independently regulated profession. However, this is very resource intensive and the “new” profession must be able to meet the criteria outlined by the Health Professions Regulatory Advisory Council for self-regulation (HPRAC, 2005).

Although this is a costly undertaking, AAs (RRT-AAs or RN-AAs) may consider this in their best interests. Physician Assistants, a similar physician extender role regulated under the CPSM, and a mechanism under consideration for PAs in Ontario.

Presently the AA role is regulated under the CRTO or CNO by extension and there are three precedents for continuing regulation in this manner while addressing the need for additional controlled acts.

The first precedent, additional practice authority under statute does not apply to the AA role as the scope of practice and controlled acts do not need modernization as in the case of the CPO and CMRTO.

The second precedent is securing additional practice authorities under the RTA as in the case of the CPO. This would bring efficiencies to accessing additional controlled acts if the numbers warranted.

The third precedent is the status quo, with specialized practice circumstances supported by medical directives and access to additional controlled acts through delegation.

The colleges that use these three approaches to defining scope of practice or accessing controlled acts do not acknowledge separate advanced practice status for their members. They believe the current regulatory framework is broad enough and flexible enough to support practice specialization and patient safety.

### **A Range of Opinions**

At this time, the CRTO, CNO, CARTA and OPIQ do not consider AA practice to be advanced as it is within the scope of Respiratory Therapy (or Nursing) as established under their respective legislation. They do acknowledge the AA role requires additional postgraduate experience and education.

Representatives from several regulatory Colleges (CMRTO, CNO, COTO, CPO) were unanimous in their view that if the role can be regulated within existing legislation, practitioners do not need to be regulated differently.

In contrast, some anaesthesiologists and RRT-AAs in the ACT demonstration project, believe the AA role deserves additional consideration. They believe that the language in the RHPA and RTA and most specifically the controlled acts is not sufficient to address the AA role as it is deployed in the ACT. In the view of some, the additional tasks and duties require significant increase in knowledge, skills, judgement and responsibility and the level of care is associated with additional risk to the patient and warrants special regulatory parameters.

RRTs acting as AAs are seeking acknowledgement of the additional competencies, responsibilities, and associated risks they have assumed and see the CRTO as the agency for that acknowledgement.

## National Practice Parameters to Protect Public Interest

It has been suggested that the AA role would benefit from consistent national approaches in order to protect the public. Specifically, it has been recommended that:

- AAs be a member of a regulated health profession
- There be a standardized scope of practice for AAs
- There be an AA competency profile/foundational knowledge document on which education and evaluation is based
- AAs be required to complete a standardized educational program with didactic, clinical and evaluation components
- The title AA be protected
- Levels of supervision be clarified
- Consistent authorizing mechanisms be developed
- Educational programs be accredited
- There be minimum criteria for entry into the AA educational program

# Recommendations

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This section outlines the recommendations with respect to RRT-AA role and advanced practice: regulation and leadership.

## Regulating Respiratory Therapy

This section presents three options for the College for regulating RRTs in the AA role with risks and benefits for both. There may be other solutions beyond the CRTO's jurisdiction.

### Maintain the Status Quo

Assuming the AA role falls within the scope of practice of Respiratory Therapy and the legislation, standards and policies of the College, the College could elect to do nothing new or different with respect to this role. More accurate data about additional controlled acts requiring delegation and with what frequency they are performed would be helpful to determine how to guide the process of delegation.

#### Benefits

- The current legislative framework supports practice development in a flexible and safe manner
- Permit this and other roles to continue to evolve
- Consistent with the approach to advanced practice used by other regulatory colleges in Ontario

#### Risks

- Does not meet the expressed wishes of some RRTs currently practicing in the AA role and they may elect to pursue recognition under the auspices of the CPSO or seek inclusion under the RHPA as a separate self-regulating profession.
- Does not address category and title as recommended by the ACT Implementation Advisory Committee recommendations

### **Establish a Separate Category of Registration with Associated Title Protection**

Formalize the AA role by codifying in a separate category the scope of practice, entry to practice, title protection, and quality assurance requirements for RRTs working as AAs.

#### **Benefits**

- Meets the expressed wishes of some RRTs currently practicing in the AA role
- Consistent with the ACT Implementation Advisory Committee recommendations (see Appendix E)

#### **Risks**

- Potentially fragments the scope of practice of RRTs
- Limits the evolution of practice in a flexible and safe manner in the long term
- Other RRTs could claim similar status (neonatal, rehabilitation). If awarded this status the situation might be exacerbated.
- Is not consistent with the approach to advanced practice used by other regulatory colleges in Ontario

### **Create Mechanism for Access to Additional Practice Responsibilities**

Following the example established by the CPO, the CRTO could create a mechanism for RRTs to secure additional practice authorities within the scope of practice of respiratory therapy. The additional practice authorities would apply to RRTs with demonstrated competence, in keeping with the legislation and as regulated by the College's standards of practice. In this way, the model is similar to medicine, where all physicians are authorized to perform controlled acts, as regulated by the CPSO, but only if they have the competence to do so.

#### **Benefits**

- Supports the increasingly numerous advanced practice roles for RRTs throughout the province facilitating a flexible and more system responsive approach.
- Allows roles to be tailored to the local patient and system needs rather than being bound by registration classification that cannot be altered easily as the system evolves
- Brings efficiencies to accessing additional controlled acts
- Retains the same model for performing controlled acts and delegation as currently exists.
- Applies equally to all forms of advanced practice in RRT profession

#### **Risks**

- Requires change in statute

## Leadership

This section lists actions the CRTO could take to support RRTs practicing in the AA role.

### Education

- Develop education strategies to help RRTs and other professionals situate the AA role in the current regulatory framework

### Partnership

- Work with the CNO to ensure consistent approach to the AA role regardless of whether performed by RRT or RN
- Collaborate with other Colleges to ensure consistent approach to devolving approach to regulatory models
- Collaborate with members of the National Alliance in an effort to work toward consistent regulation of AA

### Leadership

- Work with stakeholders to support the development of medical directives, certification programs, delegation protocols that support RRTs in specializations

### Support

- Continue to support its Members, the Respiratory Therapy Society of Ontario and academic institutions in their endeavours to recognize and facilitate the role of RRTs in AA roles in Ontario.

## Conclusions

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Advanced practice is an ever changing and elusive construct. There is little consistency within and across jurisdictions and professions about how advanced practice is conceptualized, deployed and regulated. Attempts to find innovative and efficient ways to manage health care have presented RRTs with opportunities to develop additional competencies and practice in new ways. The RHPA and RTA provide a regulatory framework that protects the public while at the same time being flexible and allowing for this evolution of the profession.

The RRT is well suited to the AA role on the ACT Ontario. The role is consistent with how RRTs are engaged in anaesthetic care in other provinces and the CAS position on AAs. The CRTO has taken the position that the RRT scope of practice and authorized controlled acts is consistent with the AA role as proposed by the CAS and the ACT Implementation Advisory Committee.

However, many RRT-AAs, the CAS and members of the ACT Implementation Advisory Committee disagree with this interpretation of the RHPA and RTA with respect to RRTs practicing in the AA role. They believe the AA role is an advanced practice role and requires additional regulatory consideration. It is clear that RRT-AAs are seeking acknowledgement of additional competencies, responsibilities and risk, but designation as advanced practice is not warranted.

This paper presents two regulatory options for the CRTO and suggests some actions the College could take to support RRTs practicing in AA roles.



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# Appendix A

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## Participants in Key Informant Interviews

### **Educators**

Susan Dunington, Michener Institute  
Anita Gallant, Algonquin College  
Denis Hunter, Fanshawe College  
Sydney Redpath, Michener Institute  
Cary Ward, Canadore College

### **RRT-AAs**

Patrick Nellis, University Health Network  
Rick Paradis, Mount Sinai Hospital

### **Professional and Regulatory Bodies**

Lori Boyd, Director of Policy, CMRTO  
Brian Buell, Registrar, CARTA  
Heather Campbell, Director of Practice and Policy, CNO  
Linda Gough, Registrar, CMRTO  
Rod Hamilton, Associate Registrar, CPO  
Elinor Larney, Deputy Registrar, COTO  
Josée Prud'Homme, Directrice générale et Secrétaire, OPIQ  
Rob Ryan, President, RTSO

### **Physicians**

Dr. C. Middleton, University Health Network  
Dr. G. O'Leary, University Health Network

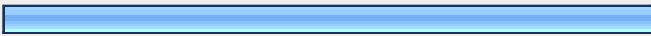




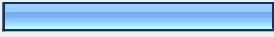

# Appendix B


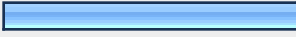
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## CRTO RRT-AA Survey Results



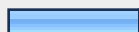
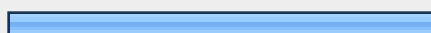
# CRTO RRT-AA Survey


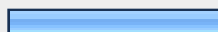
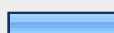
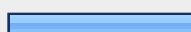
1. As an RRT, do you regularly practice in an OR setting?			
		Response Percent	Response Count
Yes		100.0%	115
No		0.0%	0
<b>answered question</b>			<b>115</b>
<b>skipped question</b>			<b>0</b>

2. Age			
		Response Percent	Response Count
20 - 29		11.1%	11
30 - 39		36.4%	36
40 - 49		41.4%	41
50 - 59		11.1%	11
over 60		0.0%	0
<b>answered question</b>			<b>99</b>
<b>skipped question</b>			<b>16</b>

3. Gender			
		Response Percent	Response Count
Female		55.1%	54
Male		44.9%	44
<b>answered question</b>			<b>98</b>
<b>skipped question</b>			<b>17</b>



4. Total years of experience working as an RRT:				
			Response Percent	Response Count
0 - 2			5.3%	5
3 - 5			9.5%	9
6 - 10			20.0%	19
greater than 10			65.3%	62
			Comment	8
			<b>answered question</b>	<b>95</b>
			<b>skipped question</b>	<b>20</b>

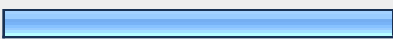
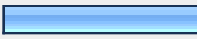

5. Years of experience working as RRT in the OR:				
			Response Percent	Response Count
0 - 2			23.2%	23
3 - 5			32.3%	32
6 - 10			16.2%	16
greater than 10			28.3%	28
			Comment	8
			<b>answered question</b>	<b>99</b>
			<b>skipped question</b>	<b>16</b>

6. Job Title associated with work in OR setting.			Response Count
			86
			<b>answered question</b>
			<b>86</b>
			<b>skipped question</b>
			<b>29</b>

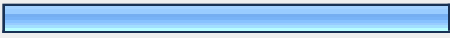
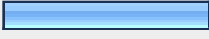
7. Are you enrolled in, or have you completed a program designed to prepare you to work as an Anesthesia Assistant (AA)?			
		Response Percent	Response Count
Yes, at The Michener Institute		62.2%	56
Yes, at Fanshawe College		4.4%	4
Yes, at Algonquin College		6.7%	6
No		27.8%	25
Comment			25
<b>answered question</b>			<b>90</b>
<b>skipped question</b>			<b>25</b>

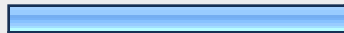
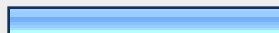

8. An Anesthesia Assistant (AA) is an RRT (or RN) with additional education who participates in the delivery of anesthesia to the stable surgical patient, under medical directives and under the supervision of the anesthesiologist. Do you practice as an AA?			
		Response Percent	Response Count
Yes		77.9%	74
No		22.1%	21
Comment			13
<b>answered question</b>			<b>95</b>
<b>skipped question</b>			<b>20</b>

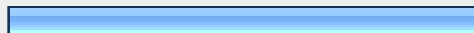
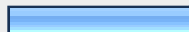
9. There are several demonstration projects for Anaesthesia Care Teams (ACT). Hospitals in the demonstration projects received additional funding to support the ACT pilot project. Is your hospital a demonstration project site for ACTs?

		Response Percent	Response Count
Yes		59.8%	58
No		29.9%	29
Not sure		10.3%	10
Comment			14
<b>answered question</b>			<b>97</b>
<b>skipped question</b>			<b>18</b>

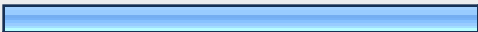
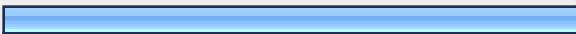
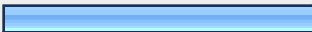
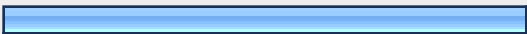

10. Anesthesia Care Teams (ACTs) are a collaboration between Anesthesiologists and Anesthesia Assistants (AAs). Do you work as a member of an ACT?

		Response Percent	Response Count
Yes		68.4%	65
No		31.6%	30
Comment			9
<b>answered question</b>			<b>95</b>
<b>skipped question</b>			<b>20</b>


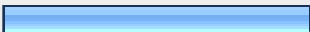


11. Are you functioning as an RRT-AA in this demonstration project?			Response Percent	Response Count
Yes			51.6%	47
No			41.8%	38
Not sure			6.6%	6
			Comment	11
			<i>answered question</i>	91
			<i>skipped question</i>	24

12. As stated previously, The Respiratory Therapy Act (1991) defines the RRT scope of practice as: “the providing of oxygen therapy, cardio-respiratory equipment monitoring and the assessment and treatment of cardio-respiratory and associated disorders to maintain or restore ventilation.” There are four controlled acts authorized to RRTs under the Respiratory Therapy Act. They are: 1 - Performing a prescribed procedure below the dermis. 2 - Intubation beyond the point in the nasal passages where they normally narrow or beyond the larynx. 3 - Suctioning beyond the point in the nasal passages where they normally narrow or beyond the larynx. 4 - Administering a substance by injection or inhalation. Are there additional controlled acts or competencies that you perform while you assist with the delivery of anesthesia at work?				
			Response Percent	Response Count
No			72.4%	63
Yes (please provide more information)			27.6%	24
			<i>answered question</i>	87
			<i>skipped question</i>	28


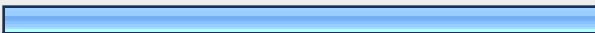
13. What additional competencies have you acquired as a result of taking an AA education program or as a result of on-the-job experience as an AA, that are unique or different from RRT competencies?		
		Response Count
		51
<i>answered question</i>		51
<i>skipped question</i>		64

14. The Respiratory Therapy Act requires a valid order from a physician (or Dentist, Midwife or Nurse Practitioner (outpatient settings)) for RRTs to perform any controlled act procedure (with the exception of suctioning) authorized to RRTs. The order can be in the form of: • a direct order (written OR verbal) AND • may include a protocol OR • may be medical directive. While functioning as an RRT-AA, what form do the orders you accept take? (choose all that apply)			
		Response Percent	Response Count
Direct Order (written)		73.1%	57
<b>Direct Order (verbal)</b>		<b>88.5%</b>	<b>69</b>
Order for a Protocol		47.4%	37
Medical Directive		80.8%	63
Other (please specify)		11.5%	9
		<i>answered question</i>	<b>78</b>
		<i>skipped question</i>	<b>37</b>

15. RRTs may accept orders from members of the following groups: • College of Physicians and Surgeons • Royal College of Dental Surgeons • College of Midwives • College of Nurses (RNECs/NPs in outpatient settings only)  
 From whom do you receive orders? (choose all that apply)

		Response Percent	Response Count
Doctor (Anaesthesiologist)		100.0%	81
Doctor (Other)		46.9%	38
Dentist		0.0%	0
Midwife		1.2%	1
Nurse Practitioner		3.7%	3
		<i>answered question</i>	<b>81</b>
		<i>skipped question</i>	<b>34</b>

16. Delegation is the transfer of the legal authority to perform a procedure within a controlled act to a person not otherwise authorized to perform the procedure. There are four controlled acts authorized to RRTs under the Respiratory Therapy Act. They are: 1 - Performing a prescribed procedure below the dermis. 2 - Intubation beyond the point in the nasal passages where they normally narrow or beyond the larynx. 3 - Suctioning beyond the point in the nasal passages where they normally narrow or beyond the larynx. 4 - Administering a substance by injection or inhalation. Have you accepted delegation of any procedures within any of the other controlled acts that are NOT authorized to RRTs under the Respiratory Therapy Act?

		Response Percent	Response Count
Yes		8.6%	7
No		91.4%	74
		<i>answered question</i>	<b>81</b>
		<i>skipped question</i>	<b>34</b>

17. This is an abridged list of controlled acts (from the Regulated Health Professions Act (RHPA)) that are not authorized to RRTs in the Respiratory Therapy Act. Which of the following controlled acts have you accepted delegation to perform? Please check all that apply.

		Response Percent	Response Count
Communicating a diagnosis ...	<input type="checkbox"/>	25.0%	2
Performing a procedure below the surface of a mucous membrane.	<input type="checkbox"/>	25.0%	2
Putting an instrument, hand or finger beyond the opening of the urethra.	<input type="checkbox"/>	0.0%	0
Putting an instrument, hand or finger beyond the labia majora.	<input type="checkbox"/>	0.0%	0
Putting an instrument, hand or finger beyond the anal verge.	<input type="checkbox"/>	12.5%	1
Putting an instrument, hand or finger into an artificial opening into the body.	<input type="checkbox"/>	12.5%	1
<b>Applying or ordering the application of a form of energy prescribed by the regulations under the RHPA.</b>	<input type="checkbox"/>	<b>37.5%</b>	<b>3</b>
Prescribing, dispensing, selling or compounding a drug as defined in the Drug and Pharmacies Regulation Act or supervising the part of a pharmacy where such drugs are kept.	<input type="checkbox"/>	0.0%	0
Managing labour or conducting the delivery of a baby.	<input type="checkbox"/>	12.5%	1
		<b>answered question</b>	<b>8</b>
		<b>skipped question</b>	<b>107</b>

18. Please describe how your work in the OR as an RRT-AA is supervised. If there are different levels of supervision in different circumstances, please describe the different circumstances and how the supervision changes in those circumstances.

		Response Count
		55
	<i>answered question</i>	55
	<i>skipped question</i>	60

19. Is there anything you would like to tell us about your experiences and practices as a respiratory therapist working as an RRT-AA in the OR that we have not asked you?

		Response Count
		35
	<i>answered question</i>	35
	<i>skipped question</i>	80



# Appendix C

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## Controlled Acts under the RHPA

The RHPA identifies thirteen controlled acts that pose significant risk of harm to the public of Ontario. These acts may only be performed by the RHP who are authorized by their profession specific Acts. The self-governing health professions are identified in the RHPA.

- 1) Communicating to the individual or his/her personal representative a diagnosis identifying a disease or disorder as the cause of symptoms of the individual in circumstances in which it is reasonably foreseeable that the individual or his/her personal representative will rely on the diagnosis.
- 2) Performing a procedure on tissue below the dermis, below the surface of a mucous membrane, in or below the surface of the cornea, or in or below the surfaces of the teeth, including the scaling of teeth.
- 3) Setting or casting a fracture of a bone or dislocation of a joint.
- 4) Moving the joints of the spine beyond the individual's usual physiological range of motion using a fast, low amplitude thrust.
- 5) Administering a substance by injection or inhalation.
- 6) Putting an instrument, hand or finger
  - i) beyond the external ear canal,
  - ii) beyond the point in the nasal passages where they normally narrow,
  - iii) beyond the larynx,
  - iv) beyond the opening of the urethra,
  - v) beyond the labia majora,
  - vi) beyond the anal verge, or
  - vii) into an artificial opening into the body.
- 7) Applying or ordering the application of a form of energy prescribed by the regulations under this Act.
- 8) Prescribing, dispensing, selling or compounding a drug as defined in the *Drug and Pharmacies Regulation Act* or supervising the part of a pharmacy where such drugs are kept.
- 9) Prescribing or dispensing, for vision or eye problems, subnormal vision devices, contact lenses or eyeglasses other than simple magnifiers.
- 10) Prescribing a hearing aid for a hearing-impaired person.

- 11) Fitting or dispensing a dental prosthesis, orthodontic or periodontal appliance or a device used inside the mouth to protect teeth from abnormal functioning.
- 12) Managing labour or conducting the delivery of a baby.
- 13) Allergy challenge testing of a kind in which a positive result of the test is a significant allergic response.

# Appendix D

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## CAS Position Paper on Anesthesia Assistants

### Background

Tremendous advances in the practice of anesthesiology have taken place over the past two decades as the result of developments in the education and training of anaesthesiologists; an expanded knowledge base; and remarkable innovations in equipment, technology and pharmacotherapeutics. More complex surgical procedures are now conducted on a patient population that is older and at higher risk, often with significant medical co-morbidities. The increasing surgical load imposes severe strains on the ability of anaesthesiologists to meet their clinical and academic obligations. The Canadian Anesthesiologists' Society (CAS) is searching for ways to improve the efficiency of anaesthesiologists while maintaining or enhancing the quality of care. Given this background, the concept of anesthesia assistants (AAs) is endorsed by the CAS. As described in this paper, the CAS welcomes the addition of competent and well trained healthcare professionals to assist in the delivery of anaesthetic care in the operating room. A model of an anesthesia care team (ACT) already exists in the province of Québec, where AAs practice under clearly defined legal status in the code of professions. Elsewhere, anesthesia care teams have been proposed, training programs established, and AAs hired without a standard definition of their scope of practice and curriculum for training. The CAS wishes to clarify its position on those issues.

### Initial Premises

- Anesthesiology in Canada is practiced by specially trained physicians.
- Anesthesia assistants are specially trained healthcare professionals who execute orders prescribed by anaesthesiologists.
- Anesthesia assistants work under the direction and supervision of anaesthesiologists.

### Guiding Principles

The CAS Guidelines to the Practice of Anesthesia state that:

*"The independent practice of anesthesia is a specialized field of medicine. As such, it should be practiced by physicians with appropriate training in anesthesia."*

- The CAS is of the firm view that ensuring patient safety and optimal delivery of patient care in the peri-operative setting requires that the practice of anesthesia remain physician-based. In this context, the CAS supports the role of AAs in providing technical support to improve the efficiency of anaesthetic care delivery. The wider introduction of AAs in Canadian anesthesia departments should not be made with the remote objective of introducing non-physician independent practice of anesthesia.

- Canadian anaesthesiologists are proud of their high standard of clinical care and their reputation for the provision of safe anesthesia. One of the determinants of safe administration of anesthesia is the physician-to-patient ratio. On that issue, the current CAS guidelines state:  
*"Simultaneous administration of general, spinal, epidural or other major regional anesthesia by one anaesthesiologist for concurrent diagnostic or therapeutic procedures on more than one patient is unacceptable."*
- Any modification in clinical practice in contradiction to the CAS guidelines must be introduced with caution and careful evaluation of the outcome to ensure that patient safety is not jeopardized. The CAS recognizes that the ACT concept, with the specific addition of competent AAs, should be considered as one of the potential solutions for improving Canadians' access to surgical services. As new cohorts of AA graduates become available to play a role in the delivery of anaesthetic care, the CAS will evaluate, with the safety of patients and quality of care as the primary principles in mind, the pertinence of revisiting its guidelines.
- The introduction of AAs into the ACT and the extent of their clinical activities should be kept under the direct responsibility of anaesthesiologists at the hospital, regional, and/or provincial levels.

### **Anesthesia Assistants: Training and Education**

The CAS recognizes that many educational programs are currently emerging in Canada, and that professionals from various backgrounds are entitled to function as AAs. The educational background for becoming an AA must be clearly defined and standardized. The theoretical knowledge and course curriculum should cover pertinent areas of physiology, pharmacology and technical aspects of anesthesia. A standard amount of clinical exposure during training should be defined. Existing organizations, such as the Canadian Society of Respiratory Therapists, l'Ordre Professionnel des Inhalothérapeutes du Québec, the Operating Room Nurses Association of Canada, the National Association of Perianesthesia Nurses of Canada and the Canadian Nurses Association should be consulted to agree on the specific training needed.

Anesthesiologists must have major involvement in the curriculum design course content, teaching and assessment of students. There should be direct links between the AA education programs, the CAS and university anesthesia departments. Existing course content should be evaluated by the Allied Health Committee of the CAS and modified to ensure that the skills required are included. Such education programs constitute additional training and should be recognized by the award of a diploma.

### **Anesthesia Assistants: Scope of Practice**

Anesthesiologists are involved in patient care pre-, intra- and postoperatively. During each phase of the peri-operative period, anaesthesiologists are assisted by dedicated and highly trained healthcare professionals. Anesthesia assistants, as defined by the training and scope of practice outlined in this document, are specially trained professionals whose activity should focus upon assisting the anaesthesiologist in the delivery of patient care during the intra-operative and immediate peri-operative period. The AA's scope of practice is as follows.

### Technical Duties

The anesthesia assistant shall:

1. Set up, test, calibrate, and operate physiologic monitors, such as anesthesia workstations, intubation/airway devices, fibre-optic endoscopes, physiologic monitors, and infusion devices.
  - Perform equipment checks as indicated and maintain records of problems to ensure safety of equipment.
  - Replace and change anaesthetic equipment supplies as per routine maintenance schedule.
  - Maintain a stock of drug supplies and equipment at anesthesia workstations.
2. Troubleshoot anaesthetic 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 anaesthetic 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 in the preparation of the patient for surgery and perform preoperative assessments as requested by the anaesthesiologist.
2. Assist with or perform the insertion of devices such as nasogastric tubes and intravenous and intra-arterial catheters.
3. Assist with the insertion of Swan Ganz catheters and central venous catheters.
4. Assist with regional anesthesia procedures.
5. Assist with or perform airway management, including insertion of laryngeal masks, tracheal intubation, and mask ventilation.
6. Assist in the positioning of the patient under the direction of the anaesthesiologist.
7. Adjust therapies (e.g., ventilation, temperature control devices, etc.) as directed by the anaesthesiologist.

8. Administer prescribed pharmacological agents to the patient under the direction of the attending anaesthesiologist, observing for side effects and efficacy of treatment during anesthesia to ensure the patient responds appropriately.
9. Assess the patient's physiological status during anesthesia by performing duties such as monitoring vital signs and anaesthetic gases and advising the anaesthesiologist of the patient's status.
10. 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.
11. Assist with the transfer of ventilated and/or anesthetized patients between areas of the hospital as required.
12. Transfer postoperative patients to the post-anesthesia care unit under the direction of the anaesthesiologist.
13. Monitor patient progress in the post-anesthesia care unit, update anesthesia monitoring records, and report patient status to the anaesthesiologist, as requested.
14. Provide diagnostic data for the anaesthesiologist by performing duties such as blood sampling and analysis, pulmonary functioning testing, end tidal CO<sub>2</sub> monitoring, pulse oximetry, and transcutaneous monitoring.
15. Prepare fibre-optic bronchoscopes and other equipment as required, and assist the anaesthesiologist during bronchoscopy with equipment setup, preparation of and instillation of medication, and sample procurement.
16. Assist the anaesthesiologist with difficult intubations.
17. Assist the anaesthesiologist with cases in locations outside of the operating room.
18. Respond to cardiac arrests in the operating room, post-anaesthetic care unit, or other locations, according to hospital procedures and policies.

### **Administrative Duties**

The anesthesia assistant shall:

1. Establish and conduct a preventive maintenance program.
2. In conjunction with the anesthesiology and biomedical engineering departments, maintain a variety of anaesthetic 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 the 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.

3. Where appropriate, meet with medical equipment and pharmacological sales representatives to organize trials and evaluations of new equipment and drugs according to hospital protocols. Gather and collate feedback and participate in purchase decisions.
4. Arrange and coordinate servicing and repair of equipment.
5. Communicate with and act as a liaison with supply companies.
6. Remain current with available supplies and equipment and make recommendations for changes/improvements.
7. Maintain supply inventory.
8. Source out supplies and equipment.
9. Assist the department of anesthesia with capital equipment budget by conducting equipment needs assessments and research.
10. Assist in quality assurance activities.

### **Education and Orientation**

The anesthesia assistant shall:

1. Participate in the orientation of new operating room and post-anaesthetic 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.





## Appendix E

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### **ACT Implementation Advisory Committee Professional Practice & Education Working Group Recommendations**

1. 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.
2. That the full AA role and responsibilities be standardized across the province, informed by the CAS guidelines. Each participating hospital should establish an AA role description based on the work that is to be performed in any given practice setting. The role description should be well communicated in order that there is common understanding of the role among care providers with whom the AA will have contact. Medical directives and associated policies and guidelines must be established and approved based on the institutional practices in each hospital e.g. Medical/Professional Advisory Committee within each practice site that employs an AA.
3. That participating hospitals establish a reporting structure such that the AA and NP-A report to both the Chief of Anesthesia and an appropriate professional practice or clinical leader within each hospital. The AA and NP-A will work under the supervision of an Anesthesiologist.
4. That the provincial deployment of the ACT model not be limited by geographic setting and that decisions as to sites be based on both the demonstrated need and capacity of each hospital to provide adequate supervision, ongoing support to the AA and NP-A and ensure continued competency.
5. That the regulatory Colleges (CNO/CRTO) and the Ministry of Health and Long Term Care (MOHLTC) adopt the guiding principles and scope of practice for AAs as set out by the Canadian Anesthesiologists' Society.
6. That any practicing AA be required to adopt the title Anesthesia Assistant and note this on all health record documentation.
7. That the regulatory Colleges (CNO/CRTO) give consideration to protecting the title of Anesthesia Assistant (AA).
8. That the Chief of Anesthesia be directly responsible for the introduction of AAs into the ACT and determine the extent of their clinical activities, as per CAS guidelines.

9. That the Chief of Anesthesia identifies the situations in which concurrent care of more than one patient by one Anesthesiologist assisted by AAs, will be appropriate in their local situation and have written guidelines for same.
10. That the Chief of Anesthesia ensure that whenever supervising the care provided by an AA, the Anesthesiologist must be 'on site', free of or immediately able to absent him/herself from patient care responsibilities, available for immediate communication by wireless phone or other similar technology and be personally able or have designated another anaesthesiologist to immediately physically attend to each patient if needed.
11. That the Chief of Anesthesia identify the situation where an NP-A may be appropriate in their local situation and have direct responsibility for the introduction of the NP-A into the ACT and determine the extent of their clinical activities.
12. That the AA be required to be a member in good standing of their provincial professional regulatory body and adhere to the requirements set out by their respective College (College of Nurses of Ontario or College of Respiratory Therapists of Ontario). At this time they will be governed by the requirements of their respective college and be accountable for ethical standards, quality assurance and continuing education.
13. That both the College of Nurses of Ontario and College of Respiratory Therapists of Ontario be encouraged to designate a common special category and protect the title of AA.
14. That the NP-A be required to be a member in good standing of their provincial professional regulatory body and adhere to the requirements set out by their College (College of Nurses of Ontario). At this time they will be governed by the requirements of their college and be accountable for ethical standards, quality assurance and continuing education.
15. That the College of Nurses of Ontario continue to collaborate with members of the profession, the health care sector, the Faculty of Nursing and the Department of Anesthesia at the University of Toronto to work towards a solution for registration and regulation of the NP Anesthesia within the Province of Ontario.
16. That each hospital be required to develop a job profile for the AA role and evaluate the compensation for the AA based on the additional skill, training, responsibility and risk assumed in this role.
17. That following confirmation by the Michener Institute of the number of 'basic' students who desire to proceed with AA training, the Michener Institute and Fanshawe College each be funded by the MOHLTC and/or MOTCU to conduct advanced/semester two cohorts to address the backlog of 'basic' trainees requiring additional education and clinical placements.
18. That the MOHLTC identify funding models that will ensure the ongoing training and education of NP-As in the Province, thus generating the critical mass necessary to fully integrate into the delivery of Anesthesia services.

19. That each educational institution set a minimum standard for entry to the AA program as an RN or RT with a minimum of 4000 hours of critical care experience within the last five years.
20. That each educational institution adopt a consolidated program of study with two didactic semesters [semester 1 (basic equivalent) semester 2 (advanced equivalent)] to be completed over a 12 month period. The clinical component (semester 3) should be completed within the following 6 months, followed by a common final written exam and simulation assessment.
21. That each educational institution enhance the existing clinical education component of training by extending the current 12 week preceptorship (minimum 450 clinical hours) by adding additional electives, rotation among specialties and a range of clinical learning locations (teaching, community) beyond the student's home/sponsoring hospital.
22. That the ongoing collaboration between the Bloomberg Faculty of Nursing and Department of Anesthesia at the University of Toronto continue in the development and delivery of NP-A education.
23. That the MOHLTC and MOTCU fund existing training programs at the Michener Institute, Fanshawe College and Algonquin College in providing up to 50 student enrolments per year over the next two years in addition to addressing the existing backlog (see recommendation 17).
24. That the AA section of the CAS provides guidance as to what expectations should be established for mandatory continuing education for the AA.



## Appendix F

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### Joint statement from the Association of Anaesthetists of Great Britain & Ireland and the Royal College of Anaesthetists

#### Physicians' Assistants (Anaesthesia) - PA(A)s

Supervision and limitation of scope of practice

Executive Summary: It is the responsibility of those leading departments of anaesthesia, together with their constituent consultants, to ensure that PA(A)s work under the supervision of a consultant anaesthetist at all times

1. The PA(A) must work at all times within an anaesthesia team led by a consultant anaesthetist whose name must be recorded in the individual patient's medical notes. Overall responsibility for the anaesthesia care of the patient rests with the named consultant at all times.
2. The consultant anaesthetist leading the anaesthesia team must undertake the duty of the **supervising anaesthetist**, or may delegate responsibility for this duty to another consultant anaesthetist. Supervision must only be delegated to a consultant anaesthetist who is competent to provide anaesthetic care for the patient concerned and who is aware of the duties required of a **supervising anaesthetist**.
3. The **supervising consultant anaesthetist** must check and take overall responsibility for preoperative patient assessment, suitability of the proposed anaesthetic techniques and patient consent.
4. For every case, the **supervising consultant anaesthetist** must:
  - be present in the theatre suite, must be easily contactable and must be available to attend within two minutes of being requested to attend by the PA(A)
  - be present in the anaesthetic room / operating theatre during induction of anaesthesia
  - regularly review the intra-operative anaesthetic management
  - be present during emergence from anaesthesia until the patient has been handed over safely to the recovery staff
  - remain in the theatre suite until control of airway reflexes has returned and artificial airway devices have been removed, or the ongoing care of the patient has been handed on to other appropriately qualified staff, e.g. in the intensive care unit

5. If the **supervising consultant anaesthetist** has to leave the theatre suite for any reason, deputising arrangements must be made. A formal handover of the case to the new **supervising consultant anaesthetist** must take place.
6. A **supervising consultant anaesthetist** must not provide solo anaesthetic cover for another simultaneous surgical list.
7. The **supervising consultant anaesthetist** must not be responsible for more than two anaesthetised patients simultaneously, where one involves supervision of a PA(A). In such instances it is essential that the clinical complexity of the anaesthetic management is appropriate, i.e. ASA I – II cases undergoing minor to intermediate surgery only, and the cases should be in adjacent theatres within the same theatre suite.
8. There must be a dedicated trained assistant, i.e. an ODP or equivalent, in every theatre in which anaesthesia care is being delivered
9. PA(A)s cannot prescribe medication. **Supervising consultant anaesthetists** must prescribe medication for each patient using suitable locally-developed patient specific tools that allow PA(A)s to check and administer drugs within appropriate limits
10. The nationally agreed curriculum<sup>1</sup> leads to limitations on the scope of practice of PAAs once qualified. They are not qualified to undertake:

Regional anaesthesia / regional blocks

Obstetric anaesthesia or analgesia

Paediatric anaesthetic practice

Initial airway assessment and management of acutely ill or injured patients (except when the PA(A) is part of a multidisciplinary hospital resuscitation team called to attend a patient and is first to arrive)

#### **Reference**

[http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_4116427](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4116427)

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# Appendix G

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## ANZCA Recommendations on the Assistant for the Anaesthetist

The presence of a trained assistant for the anaesthetist during the conduct of anaesthesia is a major contributory factor to safe patient management. The assistant must have undertaken appropriate training in order to provide effective support to the anaesthetist. The recommendations that follow establish both the practical and educational responsibilities of a competent assistant to the anaesthetist.

### 1. PRINCIPLES

1.1 These recommendations apply wherever general anaesthesia, regional anaesthesia, local anaesthesia and/or sedation are administered by an anaesthetist. Henceforth, these activities are referred to as “anaesthesia”.

1.2 The presence of a trained assistant for the anaesthetist is essential for the safe and efficient conduct of anaesthesia:

1.2.1 during preparation for and induction of anaesthesia. The assistant must remain under the immediate direction of the anaesthetist until instructed that this level of assistance is no longer required.

1.2.2 at short notice if required during the maintenance of anaesthesia.

1.2.3 at the conclusion of anaesthesia.

1.3 Facilities in which anaesthesia is administered must provide a service which ensures that anaesthetic equipment is available, properly maintained, checked before use and appropriately cleaned, as per College Professional Documents

1.4 Staff employed for these roles must be properly trained

### 2. DEPLOYMENT OF ASSISTANTS

2.1 The assistant to the anaesthetist is an essential member of the staff establishment in all locations where anaesthesia is administered.

2.2 Management must ensure that staff establishments and rostering practices allow the allocation of an assistant to the anaesthetist for every case where anaesthesia is administered.

2.3 The number and status of assistants in the staff establishment will be determined by the number and types of procedures undertaken by the anaesthesia service at each facility.

2.4 The duties of the assistants in each location must be specified in an appropriate job description.

2.5 Where a number of assistants are employed, an appropriately trained and experienced senior member of the group should be designated as the supervisor.

2.6 Whilst assisting the anaesthetist, the assistant must be wholly and exclusively responsible to that anaesthetist.

### **3. EDUCATIONAL REQUIREMENTS FOR ASSISTANTS**

An adequately trained assistant to the anaesthetist must have completed a training course which has met, as a minimum, the following criteria:

#### **3.1 Eligibility**

3.1.1 Those without previous health sector experience must have the Higher School Certificate or its equivalent.

3.1.2 Those with nursing experience must hold a certificate as a Registered Nurse (Registered Nurse Division 1) or as an Enrolled Nurse (Registered Nurse Division 2), or their equivalents.

3.1.3 Registered Nurses, Division 1 or 2 or their equivalents, must be in current clinical employment or have been so employed within one year of acceptance into a training course.

#### **3.2 Course of Instruction**

The course should be developed and administered by an appropriate institute of learning. Courses may include a distance learning component where appropriate, and may be provided full-time, part-time or as a combination of full-time and part-time. There should be continuous employment of trainee anaesthesia assistants during any part-time components of the course.

As a minimum, the course must include:

3.2.1 A course of lectures of at least 150 hours duration.

3.2.3 Supervised practical experience in anaesthetising locations, which should be documented in a log book describing the type of instruction received and the competencies demonstrated.

3.2.4 Successful completion of assignments appropriate to the curriculum that are suitable for presentation to trainees and supervisors.

3.2.5 Successful completion of internal assessments, including demonstrated competencies and designated examinations.

3.2.6 Input from anaesthetists in curriculum development, preparation and delivery of lectures, practical supervision and assessments. The minimum curriculum content for courses is outlined in the Addendum.

#### **3.3 Duration of the Course**

3.3.1 Those without previous hospital experience must complete three years of full-time employment comprising study and work as a trainee anaesthesia assistant.



3.3.2 Those with Registered Nurse Division 2 qualifications or similar must complete two years of full-time employment comprising study and work as a trainee anaesthesia assistant.

3.3.3 Those with Registered Nurse Division 1 qualifications must complete one year of full-time employment comprising study and work as a trainee anaesthesia assistant.

#### **4. CONTINUING EDUCATION OF ASSISTANTS**

Anaesthesia assistants must maintain and upgrade their knowledge and skills with regular continuing education activities. Management must ensure that staff establishments and rostering practices allow for continuing education of anaesthesia assistants. (ANZAC, 2009)