

**Extending the Perioperative
Circulating Role
For the
Registered Practical Nurse**

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Perioperative Circulating Role for the Registered Practical Nurse

All areas of nursing, struggle with issues of nurse retention, and the overall shortage of nurses. The Operating Room (O R) is not exempt from this dilemma. The Perioperative Services at the Hamilton Health Sciences (HHS) employs both Registered Nurses (RNs) and Registered Practical Nurses (RPNs) across all three sites.

With the increase in basic education of the RPN to a two year diploma program, a RN/RPN task force was implemented to analyze the expanded roles of the RPN at HHS in 2002. The task force did not take into consideration Perioperative Services. RNs are seeking to extend their practice through education to become a RN First Assistant, Anesthetist Assistant or Nurse Anesthetist, therefore it stands to reason that the RPNs would also seek avenues to expand their role in the OR.

This report will provide credible information to determine when the Circulating Role falls within the RPN's scope of practice plus outline the education and experience required for this extended role at Hamilton Health Sciences.

Research based information supporting the RPN in an extended circulating role will be provided along with comparisons and the identified differences in the basic education between RNs and RPNs. This will be done based on consultation with McMaster University School of Nursing, the Mohawk College Health Sciences Department and the College of Nurses of Ontario (CNO), and compare the differences between the RN and RPN Operating Room Certificate Course (courtesy of Mohawk College Continuing Education Department).

Comparisons of RN and RPN perioperative standards will also be reviewed through a literature search that includes the Operating Room Nurses Association of Canada (ORNAC) Recommended Standards, Guidelines and Position Statements for Perioperative Registered Nursing Practice and the Licensed Practical Nurse/Registered Practical Nurse (LPN/RPN) Standards of Practice and Competencies for Perioperative Nursing Care.

I will also outline both specific circumstances and clients appropriate for the RPN to circulate.

Similarities Between RNs and RPNs Practice in Ontario

Both are governed by the same Legislated Scope of Practice, Professional Standards and Guidelines and participate in a Quality Assurance Program.

The Nursing Act defines the scope of practice from which all nursing bodies derive their scope of practice statement. *“The practice of nursing is the promotion of health and the assessment of the provision of care for and treatment of health conditions by supportive, preventive, therapeutic, palliative and rehabilitative means in order to attain or maintain optimal function.”* (1.a. CNO Nov.06 website)

Comment:

In the Regulated Health Professions Act (1992), there are “3 acts authorized to nursing

1. *Performing a prescribed procedure below the dermis or a mucous membrane*
2. *Administering a substance by injection or inhalation*
3. *Putting an instrument, hand or finger*
 - a. *beyond the external ear canal,*
 - b. *beyond the point in the nasal passages where they normally narrow,*
 - c. *beyond the larynx,*
 - d. *beyond the opening of the urethra,*
 - e. *beyond the labia majora,*
 - f. *beyond the anal verge or*
 - g. *into an artificial opening into the body”*

(1.b. CNO Nov.06 website)

Of note is that both RNs and RPNs are accountable for their individual practice. They must have the proper knowledge skill, ability and judgment prior to performing a nursing act. *“ All nurses are accountable for their decisions and actions and for maintaining competence throughout their careers. “Nurses are not accountable for what another health care professional does, or what they are not informed about. RNs are not accountable for the actions or decisions made by RPNs”* (2.CNO 2006 pg3)

Differences

A. Basic Education

An in depth examination of course curriculum of both RN and RPN basic education and practice in consultation with McMaster University School of Nursing and Mohawk College Health Sciences Department was done.

Findings show the fundamental knowledge base of RN and RPN differs with variances in the basic nursing education. The RPN studies for two years from the same body of nursing knowledge as the RN resulting in a diploma. Their study is more focused on the body of foundational knowledge in *“areas of Clinical Practice, Decision Making, Critical Thinking, Research, Leadership, Research Utilization and Resource Management.”* (3a.CNO 2005 pg3)

The RPN nursing course focuses on one Nursing Theory and Module. It's content includes: total patient assessment where they acquire a sound knowledge of physical and social sciences which are fundamental to accurate assessment through observation, communication, interviewing techniques, documentation and reporting. The differences between paediatric and adult patients are examined. Pharmacology including drug classifications, cause and effect and administration of medications, Pathology, Physiology, I.V. Therapy, Blood Administration, Oxygen Administration, and Asepsis, Biological, physical, behavioral and social sciences are also studied. (4. Mohawk College June 2006 *Unit 3 pg.3-1-1 2*)

The RN studies for a longer period (four years) from the same body of knowledge as the RPN. Their study allows for greater depth and breadth of foundational knowledge in *"areas of Clinical Practice, Decision Making, Critical Thinking, Research, Leadership and Research Utilization and Resource Management. (5.CNO 2005 Pg.3,7)*

"The primary focus is nursing assessment and nursing diagnoses with secondary foci of nursing intervention and evaluation. Using a variety of nursing and other models, and incorporating nursing, biological, behavioral and social science theory" (6.McMaster University Health Sciences 2006 pg.3) For example: the RPN student uses a formal based structured format such as Gordon's Functional Health Pattern Assessment as a framework for nursing assessment. The RN will have studied other formats and theories such as Roy's Adaptation Theory as well as Gordon's. The RN is able to re evaluate any sudden change in clients' condition, alter the care provided and with the additional knowledge is able to access available resources as necessary.

B. Perioperative Education

In the OR it is necessary for both RNs and RPNs to obtain a Perioperative Certificate Course that adds to their basic nursing education and clearly identifies competencies for perioperative nurses.

At Mohawk College the RNs and RPNs are required to complete the same three modules. For RPNs the circulating role is reviewed along with the sequence of events for a patient-undergoing anesthesia to facilitate an understanding of this. Malignant Hyperthermia (M.H.) and Latex Allergy concerns are also reviewed.

The RNs take a fourth Module that is more in depth dealing with Anesthesia Assessment and Critical Care. Components of this extra module includes: *"Preoperative Assessment, Anesthesia and Non Invasive Monitoring, Electrocardiogram Interpretation, Pacemakers and Cardiac Arrest, Positioning and Patient Advocacy, Arterial Blood Gases and Invasive Hemodynamic Monitoring, Obstetrical Patient, M.H. and Latex Allergy, Immediate Post Operative Care, Pediatric Patient and Ethical Issues and Anesthetic Equipment"* (7. Mohawk College HSCINSC87 2006)

The College of Nurses states “*For RPNs who have developed the competencies for the circulating role by other means, such as extensive experience and relevant courses, there may be situations in which this role is within their scope of practice. For example, in less-complex situations in which the client’s needs are stable and predictable and RN resources are immediately available to manage unexpected outcomes, the RPN with circulating role competencies may take on this responsibility.*” (8 CNO 06)

C. Medication Standards

A nurse (RN/RPN) may give a drug below the drip chamber if she/he has knowledge of said drug, the effect, anticipated outcome that includes adverse reactions, whether it is an appropriate drug for the situation and has the resources to manage an unexpected reaction. (9. CNO 2005 pg9). The Standards state “*Nurses (RNs and RPNs) can administer minimal – sedation (anxiolysis) medications that do not impair the Client’s ventilatory and cardiovascular functions (e.g. lorazepam 0.5mg.sublingually). Moderate sedation and deep sedation and sedated-client monitoring is beyond the basic preparation of RNs and outside the scope of practice of the RPN role.* (10.CNO 2005 p14) Also noted is “*the administration of general anesthesia and monitoring of sedated clients is the role of the physician or dental anaesthetist. In some practice setting, RNs who have obtained additional education may assist the anesthetist with administration of deep sedation and general anaesthesia and with client monitoring.* (11.CNO 2005 p15). With this in mind, in situations where the administration of additional drugs is required such as to facilitate intubation, administering such drug is not within the RPN scope of practice.

Evidenced research supporting the RPN in the Circulating Role

Licensing bodies of Licensed Practical Nurses (LPNs) and nurses working in the O.R. in Newfoundland, Nova Scotia, New Brunswick, Manitoba, Saskatchewan, Alberta, British Columbia and Ontario were contacted requesting information about LPN practice in the O.R.

Saskatchewan

1. Education

In addition to the basic LPN nursing course the Saskatchewan Institute of Applied Sciences and Technology (SIAST) offers an LPN Perioperative Nursing Course that is 660 hours in length. The components of this course include; applying the nursing process to perioperative nursing, principles and practice of aseptic technique, basic technical skills for surgical procedures, legal and ethical issues, interpersonal aspects of perioperative nursing plus a ten-week (375 hours) clinical. Included in this course is Perioperative Nurse/Anesthesia/LPN that covers the support for caring for the surgical client during induction and emergence from anesthesia, including emergency procedures. (13.SIAST Nov 2006)

The RN course is 675 hours in length and covers the same content with additional education. (14.SIAST Dec.2006). The difference “*The anesthesia component currently has major differences in the role of the RN versus LPN with regard to anesthesia. The Perioperative Nursing Process is also different whether you are an RN or LPN – again relates to the role of the two practitioners in the OR.*” (K.Dreher, SIAST *personal communication*, October 13, 2006).

SIAST has provided distance education for LPNs in Brandon Manitoba.

2. Regulatory Body

The Saskatchewan Association of Licensed Practical Nurses (SALPN) regulates and provides standards and competencies for LPNs in the province of Saskatchewan. SALPN provides an LPN Competency Profile for Perioperative Nursing that includes circulating and assisting the Anesthetist. (15.SALPN 2005)

3. LPN Practice

In the Regina Qu’Appelle Health Region, the hospitals (Regina General Hospital and Pasqua Hospital) have a specific policy that supports the LPN in an extended circulating role. (Gloria Beaton RPN, *personal communication*, October 19.2006)

Alberta

1. Education

Grant MacEwan College in Alberta provides a LPN Perioperative Course consisting of four months distance education related to theory at the RN Level. Included are three case scenarios and three exams, two-week skills lab followed by 400-480 hr. practicum. (16. Grant MacEwan College Oct.2005)

A distance education program is currently being developed for RNs. Prior to this the RN was educated on site at the employer hospital.

2. Regulatory Body

The College of Licensed Practical Nurses of Alberta (CLPNA) regulates and provides standards of practice and competencies for the LPNs of Alberta. CLPNA has an LPN Competency Profile for Perioperative Nursing Specialty that includes circulating and assisting the Anesthetist. (17.CLPNA 2005)

3. LPN Practice

In Edmonton and surrounding smaller communities to the north and south the RN and LPN take turns scrubbing and circulating. Hospitals that employ LPNs in the circulating role use the LPN/RPN Standards of Practice and Competencies for Perioperative Nursing in conjunction with educational programs and hospital policies. (P. Fredrickson, CLPNA practice consultant *personal communication*, October 2006).

Nova Scotia

1. Education

The Nova Scotia Community College has run a Certificate Program for LPNs in the past and will again be offering it in 2007.

2. Regulatory Body:

The College of Licensed Practical Nurses of Nova Scotia (CLPNNS) regulates and provides standards of practice and competencies for all LPNs in the province. CLPNNS has a draft competency profile for the Perioperative Nursing Specialty that is based on the LPN/RPN Standards of Practice and Competencies for Perioperative Nursing Care that is in the process of being validated. This will be included in the Nova Scotia Licensed Practical Nurse Competency Profile (A. Mann Exec. Dir. CLPNNS *personal communication*, Oct 19,2006)

3. LPN Practice

There is no definitive information at this time regarding LPN's practice in the Operating Room.

British Columbia

1. Education

The LPN Perioperative Course was provided by Grant MacEwan College in Alberta through long distance education, the practicum is done in hospitals in British Columbia.

2. Regulatory Body

The College of Licensed Practical Nurses of British Columbia (CLPNBC) regulates and provides standards of nursing and competencies for all LPNs in the province.

3. LPN Practice

It was found that *“Few hospitals utilize Operating Room Technicians (ORTs) /LPNs (Kelowna, Royal Columbian, MSA- Fraser Valley and Vancouver General Hospital); most positions have been in place for several years and those in positions work in both scrub and circulating roles.”* (18. Ad Hoc Committee pg 9 March 31 2004)

An initiative was implemented to increase the number of LPNs in the Operating Room in British Columbia hospitals. *“The LPN’s practice will includes admission of patient to the OR, scrub role and secondary circulating role, with the intent of revisiting the primary circulating role for non complex, stable patients with predictable outcomes if an RN was readily available in the surrounding areas (but not in the room), and the RN scrub nurse was in charge of the theatre.”* (19. Ad Hoc Committee pg3 March 31,2004)

The LPNs who were apart of this initiative have completed their study and are now working in Operating Rooms fulfilling the scrub role, second circulating role and admission of patients to the pre-surgery area. The primary circulating role is to be re-evaluated two years post implementation. (Janet William B.C. Adhoc Committee Member *personal communication* Oct.8/06)

Ontario

1. Education

In Ontario many colleges offer the RPN Perioperative Course based on demand in the area. Colleges presently offering this course are Cambrian College, Canadore College, Centennial College, Fanshaw College and Mohawk College. Content and length may vary. All colleges offer a RN course in conjunction with the RPN course. This course has an added module specifically for RNs that include a comprehensive anesthetic component. Conestoga College offers the same components in their certificate course to both RN and RPN.

2. Regulating Body

College of Nurses of Ontario (CNO) is the regulating body for both RPNs and RNs. It does not provide specific competencies for Perioperative Specialty Nursing for either RNs or RPNs.

3. RPN Practice

Prior to 1995 RPNs functioned in both the scrub role and primary circulating role in hospitals throughout Ontario. (20. RPNAO 1995)

Presently most hospitals employ RPNs who fulfill the scrub role with limited secondary circulating.

Factors Determining RPN Circulating Practice

Using CNO's three factor guideline for nursing practice and the Anesthetic Society of Anesthesia (ASA) Physical Status Classification, I will demonstrate when it is appropriate for an RPN to Circulate.

Three factors that determine when it is appropriate for the RPN to circulate are based on the **nurse, client and environment**.

The **Nursing** category is determined by the nurse's knowledge, skill and judgment that take into account technical skills, cognitive abilities and autonomous practice for both RN and RPN (21a.CNO 2006)

The **Client** Care is influenced by the complexity of the care needs, predictability of outcomes of client care and the risk of negative outcomes in response to care. (21b.CNO 2006)

The Environmental factors are influenced by the amount of practice supports in place, the predictability of the environment and the availability of consultative resources. (21c.CNO 2006)

"RNs and RPNs provide Independent Care when client care required is less complex, in a stable and predictable environment that has many practice supports and consultative resources." (21d.CNO 2006)

"RNs and RPNs collaborate at varying degrees in the care of clients whose care needs are moderately stable and predictable in an environment that have some practice supports and consultative resources". (21e.CNO 2006)

"RNs independently provide care when client care needs are highly complex, in unstable and unpredictable environments with few practice supports". (21f.CNO 2006)

The appropriate type of patient for the RPN to care for is dependent on the nurse's preparedness to practice autonomously with practice supports in place that allow for consultation of an RN in more complex situations. Patient complexity and environmental factors are also taken into consideration. For example; A patient who is normally healthy with one systemic problem who is having minor or major surgery with the expectations of going home the same day would be appropriate.

Therefore it is my finding that the RPN who fulfills the requirements for extended practice may work independently or collaboratively with an RN when the client's needs are moderately stable, and less complex in a predictable environment that has clear policies, procedures (practice supports) and consultative resources. The RPN may also relieve for breaks except when the client's needs are highly complex, unstable in an unpredictable environment with few practice supports.

<u>Examples for Independent Practice</u>			
Client Type	Care	Environment	Resources
ASA 1, Same Day Surgery Home (SDS/H) Minor/Major Surgery i.e.: Health client undergoing a Laparoscopic Cholecystectomy	Predictable Surgery Condition well controlled, with low risk for negative outcomes	-Policy in place supporting RPN in circulation role -high proportion of expert nurses	RN available
ASA 2, SDS/H, Minor/Major Surgery i.e.: Controlled diabetic client that is otherwise healthy undergoing arthroscopic surgery	Predictable Surgery Condition controlled, increased risk for negative outcomes	-Policy in place supporting RPN in circulation role -high proportion of expert nurses	RN available
<u>Example for Collaborative Practice with an RN</u>			
Client Type	Care	Environment	Resources
ASA 2, SDS/Admit Minor/Major Surgery i.e.: Diabetic client with hypertension who is undergoing Bowel Surgery for Cancer	Moderately predictable, increased risk for negative outcomes	Policies in place supporting the RPN 2 nd circulator practice	RN present

ASA 3,4,5,6 are not appropriate for the RPN to circulate

The ASA Classification is used as a potential risk predictor only. It does not take into account many other factors that can affect surgical outcomes.

<u>ASA Classification</u>	<u>Description and Examples</u>
1. A normal healthy patient.	No Physiologic, psychologic, biochemical, or organic disturbance
2. A patient with mild systemic disease.	Cardiovascular disease with minimal restriction of Activity. Hypertension, asthma, chronic bronchitis, obesity, diabetes mellitus, or tobacco abuse
3. A patient with a severe systemic disease that limits activity but is not incapacitating	Cardiovascular or pulmonary disease that limits activity. Severe diabetes with systemic complications History of myocardial infarction, angina pectoris, poorly controlled hypertension, or morbid obesity.
4. A patient with severe systemic disease that is a constant threat to life	Severe cardiac, pulmonary, renal, hepatic, or endocrine dysfunction.
5. A moribund patient who is not expected to survive 24 hours with or without the operation.	Surgery is done as a last recourse or resuscitative effort. Major multisystem or cerebral trauma, ruptured aneurysm, or large pulmonary embolus.
6. A patient declared brain dead whose organs are being removed for donor purposes.	

(22. Mosby 2003 pg.22)

Requirements Supporting the RPN in the Extended Circulating Role

The RPN requires further education in order to fulfill the Circulating Role for non complex, stable patients with predictable outcomes if an RN is readily available in the surrounding area (but not in the room).

Mohawk College offers a separate Module in the RN Certificate Course that could be modified and offered to the RPN. This would include preoperative assessment, anesthesia and non-invasive monitoring lines, positioning, patient advocacy, and anesthetic equipment.

This course would be followed by clinical practice with a preceptor or until the added competencies have been successfully signed off.

Recommendations

With the appropriate experience and education, the RPN's extended role in the operating room includes:

- A. Admission of patients to the patient receiving area or to the Operating Room when there is no holding nurse unless the patients' condition is unstable and an RN is available to come to the pre-surgery area, if required.
- B. For all cases regardless of classification when the RN is the Primary Circulator, the RPN fulfils the Scrub circulator duties as well as participates in other functions that include: bringing stable patients into the operating room, applying monitors and

- equipment as needed, assisting the anesthetist with anesthesia including spinal and epidurals as required, assisting with positioning and appropriate documentation to ensure patient security and safety.
- C. The RPN can relieve the RN for breaks intra operatively where the client needs are moderately stable and predictable. When the patient condition starts to deteriorate the RPN will respond appropriately to the situation and seek collaborative assistance of an RN
 - D. Increase the number of RPNs to a minimum of one RPN per room. Taking into account the experience of the staff, one RN and two RPNs could staff a room.

Benefits

The enhanced RPN role will complement the RN's practice and will help address the nursing shortage.

There would be an increased opportunity for the RNs to maintain competency in the scrub role and RPNs would have an opportunity to obtain and maintain circulating competencies.

By increasing the staffing to one fulltime RPN per room and one on evenings in each Operating Room at all three sites and reducing the RN staff by as much (as RN staff retire etc.) there would be potential fiscal benefits.

Conclusion

In other provinces the LPN is supported in the role of primary circulator with the appropriate education, practice competencies and hospital policies in place.

As nursing continues to evolve and practice standards change the RPN with the appropriate education could fulfill the extended Circulating Role for patients whose conditions are stable, moderately stable and predictable with practice policies and competencies in place and with an ASA classification of one or two.

Since the CNO medication standards presently limit the practice for the RPN with regards to giving a drug that induces deep sedation and /or anesthesia the RPN can assist the anesthetist as long as there is an RN on the floor circulating.

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