Standards for Critical Care Nursing in Ontario

Critical Care Secretariat



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PREAMBLE

Critical Care Nursing Standards were developed in an effort to identify and describe desirable and achievable critical care nursing competencies with the intent to standardize critical care nursing practice within the province of Ontario. The Critical Care Nursing Standards of Ontario are based on the Standards of Nursing Practice of the College of Nurses of Ontario (CNO) and the Canadian Association of Critical Care Nurses (CACCN), and are organized into five major categories:

- Professional Behaviour/Ethics
- Continuing Competence and Research
- Client and Nurse Safety/Risk Prevention
- Therapeutic and Professional Relationships/Caring
- Clinical Skills, Knowledge, Integration and Critical Thinking

Each category consists of competency statements and their associated criteria or performance behaviors. The criteria are taken directly from the CACCN Standards for Critical Care Nursing Practice. The CACCN Structure of the Critical Care Unit is also incorporated to identify the key infrastructure necessary to support critical care nursing practice in the province of Ontario.

Competence is based on the critical care nurse's ability to integrate and apply knowledge based on judgment, skill level, and previous experience. The critical care nurse applies specific knowledge and builds upon previous experiences to progress along the continuum from novice to expert critical care nurse. The competency statements and criteria are further stratified according to the Level of Acuity (Care) of patients as defined in the final report of the Ontario Critical Care Steering Committee.

The recommended elements of the Level of Acuity are as follows:

Level 3	• Service to meet the needs of patients who require advanced or prolonged respiratory support alone,
	or basic respiratory support together with the support of at least two organ systems.
Level 2	• Service to meet the needs of patients who require more detailed observation or intervention
	including support for a single failed organ system, short-term ventilation, post-operative care, or
	patients "stepping down" from higher levels of care.
	• Patient transfer agreements and patient stabilization/transfer protocols to transfer patients to a Level
	3 service.
	• Management may involve remote support provided in collaboration with a Level 3 service (i.e.,
	telemedicine, eICU).
Level 1	• Service to meet the needs of patients at risk of their condition deteriorating, or those recently
	relocated from higher levels of care, whose needs can be met on an acute ward with additional advice
	and support from a critical care team.
	• Patient transfer agreements and patient stabilization/transfer protocols to transfer patients to Level 2
	or 3 services as required.
	• Management may involve remote support provided by a Level 3 service (i.e., telemedicine, eICU).

TERMINOLOGY

Caring:

A fundamental part of the nurse-client relationship is caring. Caring is demonstrated in the behavior actions and attributes of the nurse. Generally, caring requires recognizing clients as unique individuals whose goals are promoted by nurses (College of Nurses of Ontario, 2003).

Clinical Skills:

Nurses are required to demonstrate competence in their nursing practice through integration of knowledge and skills in order to perform nursing interventions competently. Interventions include thorough patient assessment, safe practice in patient care, medication administration and appropriate documentation (College of Nurses of Ontario, 2003).

Competence:

The ability of a nurse to integrate the professional attributes required to perform in a given role, situation, or practice setting. Professional attributes include, but are not limited to knowledge, skill, judgment, attitudes, values, and beliefs (College of Nurses of Ontario, 2003).

Critical Care Nurse:

Critical care nurses are highly knowledgeable and skilled health care professionals that work in a critical care unit in collaboration with members of the health care team to provide optimum holistic care. The skills and knowledge of critical care nurses may be directed towards health promotion, prevention, maintenance, rehabilitation/restoration or palliation in care of critically ill patients. Critical care nurses maintain professional competence through ongoing education, research and skill development and strive to provide evidenced-based practice through promotion of research within their specialty areas (Canadian Association of Critical Care Nurses, 2004). Nurses are prepared through an undergraduate program. Critical care specialist training is usually provided in the critical care unit.

Critical Thinking:

When assessing and managing client responses to various health conditions the nurse uses critical thinking to problem-solve. This is integral to making good decisions and includes activities of organizing and analyzing information, recognizing patterns, and gathering data to support conclusions drawn (College of Nurses of Ontario, 2003).

Leadership:

The nurse demonstrates leadership by identifying a situation that compromises safe, effective, ethical care, and advocates for changes to support the well-being of clients. The nurse demonstrates leadership at the unit level, the organizational level, the professional organizational level, and the political, provincial, or federal level (College of Nurses of Ontario, 2003).

Professional Behaviour/Ethics:

The nurse demonstrates accountability to the public and is responsible in his/her practice to meet legislative requirements and demonstrate the standards of the profession. This demonstration includes ensuring and respecting client choices in decision making, promoting client well-being, assuring privacy and maintaining confidentiality, maintaining commitment to the client, self, profession, and employer and respecting sanctity and quality of life (College of Nurses of Ontario, 2002; College of Nurses of Ontario, 2003).

Professional Nurse/Multidisciplinary Team Member Relationship:

The nurse is required to interact with other health care providers. The relationships must be professional and based on trust and respect (College of Nurses of Ontario, 2003).

Research:

The nurse engages in research to ensure his/her practice is current and consistent with best–practice evidence. This involves questioning and appraising information, and exercising judgment when integrating new knowledge into practice (College of Nurses of Ontario, 2003).

Safety:

The nurse is responsible for taking measures to promote safety for both clients and colleagues. The nurse enables the patient and colleagues avoid injury and illness by taking measures in their prevention, responding to risks, challenging questionable orders and actions, and intervening appropriately in situations of risk (College of Nurses of Ontario, 2003).

Standards of Practice:

Critical care nursing standards are statements that describe the level of performance expected of registered nurses in critical care practice (Canadian Association of Critical Care Nurses, 2004). The three major components are professional standards, practice expectations, and legislation. "All standards of practice provide a guide to the knowledge, skills, judgment and attitudes that are needed to practice safely" (College of Nurses of Ontario, 2002).

Therapeutic Professional Nurse/Patient Relationships:

The nurse is responsible for the establishment of a therapeutic nurse-client relationship, which focuses on the need of the client. The relationship is based on respect, trust, intimacy, and appropriate use of power. A professional therapeutic relationship involves establishing and maintaining appropriate boundaries and recognizing when the relationship crosses therapeutic boundaries (College of Nurses of Ontario, 2003).

Category 1: Professional Behavior/Ethics

Competency Statement	Criterion	L3	L2	L1
Outcome Standard 1	1.1 The critical care nurse contributes positively to the image of	Х	Х	Х
The critical care nurse practices within	nursing.			
the scope of professional, legal, and	1.2 The critical care nurse contributes positively to the image of the	Х	Х	Х
ethical standards	critical care unit (e.g. education, ongoing information about care).			
	1.3 The critical care nurse ensures confidentiality of the	Х	Х	Х
	patient/family information and reports infractions.			ĺ
	1.4 The critical care nurse maintains professional competence	Х	Х	Х
	through education.			
	1.5 The critical care nurse ensures patient and family privacy within	Х	Х	Х
	the limits of the environment.			
	1.6 The critical care nurse follows guidelines for notification of	Х	Х	Х
	reportable incidents (e.g. communicable diseases, abuse).			
	1.7 The critical care nurse follows guidelines for reporting data to	Х	Х	Х
	appropriate agencies (e.g. coroner, policy)			
	1.8 The critical care nurse identifies potential candidates of tissue	Х	Х	Х
	and organ procurement.			
	1.9 The critical care nurse responds to environmental, physical, and	Х	Х	Х
	psychosocial stress factors which impact interdisciplinary team			
	members in the critical care setting.			
	1.10 The critical care nurse participates in critical care nursing	Х	Х	Х
	research and incorporates research findings into practice.			
	1.11 The critical care nurse recognizes the delineation between the	Х	Х	Х
	practice of critical care nursing and the practice of critical care			
	medicine.			
	1.12 The critical care nurse responds to professional, legal, and	Х	Х	Х
	ethical issues.			1

Competency Statement	Criterion	L3	L2	L1
Outcome Standard 2 (Structure of the Critical Care Unit)	2.1 Staff Nurses, with post-basic preparation or experience in critical care nursing are responsible for direct patient and family care.	X	Х	X
Qualified personnel are provided by the health care facility	2.2 The health care facility develops, in collaboration with the critical care nursing staff, written guidelines of the skills required to differentiate novice from expert critical care nurses.	X	X	X
	2.3The health care facility ensures that all critical care nursing personnel receive a performance appraisal, in accordance with the hospital's policies, which is based on the written job description, discussed with the staff members involved, and includes a process for the development of mutually agreed upon goals and objectives.	X	X	X
Outcome Standard 3 (Structure of the Critical Care Unit) A Critical Care Committee is	3.1 The Critical Care Committee should have broad representation from all levels of critical care nursing, medicine, other health care professionals involved in patient care and, if possible, consumer representation.	Х	Х	Х
established by the health care facility.	3.2 The Critical Care Committee should act in an advisory or decision making capacity with responsibilities for, but not limited to:	Х	Х	X
	• 3.2.1 Policies and procedures	Х	Х	Х
	• 3.2.2 Program development and evaluation	Х	Х	Х
	• 3.2.3 Structural planning	Х	Х	Х
	• 3.2.4 Unit philosophy, goals, and objectives	Х	Х	Х
	• 3.2.5 Conflict resolution between disciplines or departments	X X	X X	X X
	• 3.2.6 Establishment of a mechanism for resolving issues related to insufficient resources	X	X	X
	• 3.2.7 Unit quality improvement activities	X	X	X
	3.2.8 Analysis of statistical data on unit utilization	Х	Х	Х
	3.3 The Critical Care Committee approves written information regarding the critical care unit including, but not limited to:	Х	Х	X
	• 3.3.1 Unit philosophy, goals, and objectives	х	х	Х
	• 3.3.2 Organization chart	X	X	X
	• 3.3.3 Dependent nursing responsibilities	X	X	X
	• 3.3.4 Medical responsibilities	Х	Х	Х
	 3.3.5 Roles and responsibilities of other health professionals in the unit 	Х	Х	Х
	3.4 The Critical Care Committee approves written policies and procedures specific to the critical care unit including, but not limited to:	Х	Х	X
	• 3.4.1 Admission, transfer, and discharge criteria	Х	Х	Х
	• 3.4.2 Fire, disaster and evacuation plans	X	X	X
	• 3.4.3 Medication administration	X	X	X
	 3.4.4 Transfer of medical function(s) and shared competencies 	X	X	X
	• 3.4.5 Protocols for management of specific patient populations	Х	Х	X

Category 2: Continuing Competence and Research

Competency Statement	Criterion	L3	L2	L1
Outcome Standard 4 Interventions based upon the actual and potential nursing diagnoses are planned by the critical care nurse, in collaboration with other members of the interdisciplinary health care team, to formulate the overall plan of care.	4.1 The critical care nurse incorporates safety measurements for the patient, family, and members of the health care team when developing the plan of care.	X	X	X
Outcome Standard 5 (Structure of the Critical Care	5.1 The health care facility develops criteria for hiring nurses based on the knowledge and skill requirements of the job.	Х	Х	X
Unit) Opportunities for critical care nurses to maintain the knowledge	5.2 The health care facility provides an orientation program in which the orientee is supernumerary and the orientation program:	Х	Х	X
and skill necessary to deliver safe	• 5.2.1 Is based on a learning needs assessment	Х	Х	Х
and knowledgeable nursing care, within the context of the chosen conceptual model of nursing practice, are provided by the health care facility.	 5.2.2 Includes specific unit philosophy, goals, policies and procedures, as well as an organizational chart 	Х	Х	x
	• 5.2.3 Includes physical layout and instructions in the use of unit equipment	Х	Х	Х
	• 5.2.4 Includes a clinical and theoretical component, the content and length of which is based on the level and type of the unit	Х	Х	X
	5.3 The health care facility provides continuing education programs on the following:	Х	Х	X
	• 5.3.1 New or revised policies and procedures	Х	Х	Х
	• 5.3.2 The use of new or updated equipment	Х	Х	Х
	• 5.3.3 Roles and responsibilities of the critical care nurse, including the role of charge nurse and preceptor	Х	Х	X
	• 5.3.4 Role of the critical care nurse on the health care team	Х	Х	X
	• 5.3.5 Theory pertinent to the patient population and needs of critical care nurses	Х	Х	Х
	• 5.3.6 Critical incident stress management for all staff members	Х	Х	X
	• 5.3.7 The use and fitting of personal protective equipment for all staff involved in patient care	Х	Х	X
	5.4 The health care facility evaluates the knowledge and competencies of the critical care nurse.	Х	Х	X
	5.5 The health care facility establishes/maintains a current and accessible library of reference materials relevant to the patient population.	Х	Х	X

Category 3: Client and Nurse Safety/Risk Prevention

Competency Statement Criterion L3 L2 L1 6.1 The critical care nurse discusses significant findings with **Outcome Standard 6** Х Х Х Based upon knowledge of other members of the health care team. biological, physical, and behavioral sciences, data are analyzed by the critical care nurse to formulate nursing diagnoses. Outcome Standard 7 Х Х Х 7.1 The critical care nurse collaborates with patient, family, Interventions based upon the actual and other health care team members to establish an and potential nursing diagnoses are individualized and holistic plan of care. planned by the critical care nurse, in collaboration with other members of the interdisciplinary health care team, to formulate the overall plan of care. 8.1 The critical care nurse optimizes communication with **Outcome Standard 8** Х Х Х The critical care nurse implements the patient and family by: the plan of care including 8.1.1 Using nonverbal strategies (e.g. lip reading, Х Х Х independent and interdependent gestures, posturing, eye contact, touch, eye nursing functions. blinking) 8.1.2 Using assistive age-appropriate devices (e.g. Х Х Х communication boards, talking tracks, mechanical voice boxes) 8.1.3 Encouraging and teaching the family and Х Х Х other members of the health care team to communicate with the patient Х Х Х 8.1.4 Involving the family in interpreting the patient's efforts to communicate with the patient 8.2 The critical care nurse intervenes to facilitate optimal Х Х Х family processes by: 8.2.1 Using language that is consistent with level Х Х • Х of understanding 8.2.2 Providing an opportunity for the Х Х Х patient/family to verbalize feelings and concerns, using interpreters when needed 8.2.3 Demonstrating concern and acceptance Х Х Х

through sincere and empathetic verbal and

8.2.4 Providing honest and realistic information to

8.2.6 Providing frequent and regular exchanges of

8.2.7 Using principles of crisis intervention

8.2.9 Providing opportunity and privacy for

8.2.10 Facilitating partnerships and decision-

8.2.8 Initiating internal/external referrals

Х

Х

Х

Х

Х

Х

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Х

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Х

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Х

Х

Х

Х

nonverbal communication

patient/family interaction

making with family members

8.2.5 Providing ongoing support

the patient/family

information

Category 4: Therapeutic and Professional Relationships/Caring

Competency Statement	Criterion	L3	L2	L1
	8.3 The critical care nurse promotes realistic hope for the patient and family by:	Х	Х	Х
	 8.3.1 Encouraging and exploring the verbalization of feelings 	Х	Х	Х
	• 8.3.2 Providing opportunities to make informed choices	Х	Х	Х
	• 8.3.3 Educating the patient and family about nursing and collaborative interventions based on	Х	Х	Х
	learning needs8.3.4 Involving the family in direct patient care	Х	Х	Х
Outcome Standard 9 The critical care nurse evaluates patient outcomes in accordance with a conceptual model for critical care nursing and consistent with independent nursing functions.	9.1 The critical care nurse reports and discusses significant differences between actual and expected outcomes with the appropriate interdisciplinary team members.	X	X	X
Outcome Standard 10 Therapeutic relationships with	10.1 The critical care nurse acts in the capacity of patient and family advocate.	Х	Х	Х
patients and families are developed and maintained by the critical care nurse.	10.2 The critical care nurse develops a therapeutic relationship with patients and families often within a limited time frame.	X	X	X
	10.3 The critical care nurse facilitates patient and family adaptive coping with stressors related to the illness and the environment.	Х	Х	Х
	10.4 The critical care nurse communicates relevant data and the plan of care to the patient and family.	Х	Х	Х
	10.5 The critical care nurse facilitates patient and family access to resources internally and externally.	Х	Х	Х
	10.6 The critical care nurse selects teaching strategies appropriate to the time available.	Х	Х	Х
	10.7 The critical care nurse applies teaching methods that are appropriate to the patient's and family's readiness to learn and stage of growth and development.	Х	Х	Х
	10.8 The critical care nurse evaluates learning outcomes and revises teaching methods and/or the learning plan as required.	Х	Х	Х
	10.9 The critical care nurse maximizes patient and family participation and autonomy in decision-making.	Х	Х	Х

Competency Statement	Criterion	L3	L2	L1
Outcome Standard 11	11.1 The critical care nurse collects data on a continuous	X	X	X
Data regarding the patient's	basis, as well as performs comprehensive/holistic data		23	
physical, emotional, and	collection at the:			
psychosocial status, as well as	• 11.1.1 Time of admission to the unit	X	х	х
documentation regarding advance	 11.1.2 Beginning of each shift 	X	X	X
directives, are collected by the	 11.1.3 Change of patient assignment 	X	X	X
critical care nurse at the time of		X	X	X
admission to the critical care unit and during the patient's stay.	11.1.4 Change in patient's clinical status 11.2 The critical care nurse collects data:	Λ	Λ	Λ
and during the patient's stay.				
	• 11.2.1 Using technological supports			
	- intra-aortic balloon pump, continuous hemofiltration	Х		
	- mechanical ventilators, pacemakers	Х	Х	+/-
	-			
	 11.2.2 Using non-invasive monitoring techniques ECG, non-invasive blood pressure monitoring, 	Х	Х	Х
	oxygen monitoring			
	- using non-invasive/invasive monitoring	Х	+/-	
	techniques (e.g. arterial lines, pulmonary artery			
	catheters)			
		X	X	X
	11.3 The critical care nurse collects laboratory specimens (e.g. sputum via endotracheal tube, blood via invasive	Λ	Λ	А
	lines).			
	11.4 The critical care nurse gathers pathophysiological,	Х	Х	Х
	psychosocial, cultural, developmental and spiritual data			
	based on the patient's condition.			
	11.5 The critical care nurse obtains a comprehensive health	Х	Х	Х
	history using all available and appropriate sources in the			
	absence of a patient's ability to communicate.			
	11.6 The critical care nurse gathers data concerning the	Х	Х	Х
	family's needs and responses to the health crisis.	v	37	.
	11.7 The critical care nurse gathers data regarding infection	Х	Х	Х
	control risks to patients and staff and takes all the necessary			
	preventative measures to protect against exposure.			

Category 5: Clinical Skills, Knowledge, Integration and Critical Thinking

Competency Statement	Criterion	L3	L2	L1
Outcome Standard 12	12.1 The critical care nurse interprets physical assessment.	Х	Х	Х
Based upon knowledge of	12.2 The critical care nurse analyzes unexpected findings.	Х	Х	Х
biological, physical, and	12.3 The critical care nurse makes rapid decision about	Х	Х	Х
behavioral sciences, data are analyzed by the critical care nurse to formulate nursing diagnoses.	priorities of care. 12.4 The critical care nurse anticipates and/or recognizes an actual or potential immediate life threatening health crisis	x	х	X
	 including, but not limited to: 12.4.1 Ineffective airway clearance (e.g. 	х	X	х
	 epiglottis, mucous plug) 12.4.2 Ineffective breathing pattern (e.g. tension 	x	x	x
	pneumothorax, flail chest)	x	x	x
	 12.4.3 Impaired gas exchange including upper airway disease (foreign body, croup, epiglottis, postextubation stridor, laryngospasm), lower airway disease (respiratory distress syndrome, acute respiratory distress syndrome, pulmonary edema, bronchiolitis, status asthmaticus, mixed obstructive and restrictive disease, inhalation injuries) and ineffective gas exchange (pleural effusion) 	Λ	Α	Λ
	• 12.4.4 Alteration in cardiac output (e.g.			
	congenital heart defects, cardiomyopathy, shock, myocardial infarction, cardiac tamponade, congestive failure, cardiac dysrhythmias)	х	х	Х
	 12.4.5 Alteration in cerebral tissue perfusion head trauma, cerebral aneurysm, seizures, meningitis, shock, cerebral vascular accident, arteriovenous malformation) cerebral vasospasm 	Х	Х	x
	• 12.4.6 Alteration in gastrointestinal tissue perfusion (e.g. pancreatitis)	Х	Х	Х
	• 12.4.7 Alteration in renal tissue perfusion (e.g. acute renal failure, congenital)	Х	Х	х
	 12.4.8 Alteration in vascular tissue perfusion (e.g. compartment syndrome, abdominal aortic aneurysm, thrombosis) 	х	х	Х
	 12.4.9 Alteration in integumentary tissue perfusion (e.g. burns, decubitus ulcer) 	X	х	x
	• 12.4.10 Alteration in fluid balance (e.g. sepsis, ascites, SIADH, DI, hemolytic uremia)	х	Х	X
	 12.4.11 Alteration in motor and sensory function (e.g. myelomeningocele, Guillian-Barre, spinal cord injury, neurogenic shock) 	х	х	Х
	• 12.4.12 Ineffective thermoregulation (e.g. malignant hyperthermia, hypothermia)	х	х	x
	• 12.4.13 Alteration in liver function (e.g. hepatitis, biliary atresia, poisonings)	х	Х	x
	• 12.4.14 Alterations in endocrine function (e.g. diabetic ketoacidosis)	х	Х	x
	• 12.4.15 Alterations in immunologic function (e.g. graft versus host disease, transplant, systemic	X	X	X
	inflammatory response syndrome)			

Competency Statement	Criterion	L3	L2	L1
	• 12.4.16 Alterations in hematologic function (e.g. leukemia, disseminated intravascular coagulopathy, heparin-induced thrombocytopenia, deep vein thrombosis)	х	X	х
	• 12.4.17 Altered comfort (e.g. pain, anxiety, sleep deprivation, delirium)	Х	Х	х
	• 12.4.18 Impaired communication (e.g. intubated, neurological deficits, developmental delay, sedation)	X	x	x
	• 12.4.19 Altered family processes (e.g. grief/loss, guilt, sudden death, sudden infant death syndrome)	Х	X	x
	 12.4.20 Altered family/patient coping (e.g. helplessness, powerlessness) 	Х	Х	х
	• 12.4.21 Manifestations of abuse (e.g. child, spouse, elder)	x	x	x
	• 12.4.22 Altered nutritional requirements			
	• 12.4.23 End-of-life withdrawal of treatment	Х	Х	Х
	and/or the execution of advanced directives	Х	Х	X
	• 12.4.24 Organ donation and transplantation	Х	Х	Х
	12.5 The critical care nurse interprets pertinent diagnostic data including:	Х	Х	Х
	C	Х	Х	Х
	• 12.5.1 Arterial and venous blood gases			
	• 12.5.2 Intracardiac pressures and waveforms (e.g. pulmonary artery, right atrial, left atrial)	Х	Х	Х
	 12.5.3 Central venous pressures and waveforms 	x	X	
	• 12.5.4 Arterial pressures and waveforms	X	X	. /
	• 12.5.5 Intra-aortic balloon pressures/waveforms	X X	л +/-	+/-
	• 12.5.6 Hemodynamic calculated parameters (e.g. cardiac index, systemic vascular resistance index, pulmonary vascular resistance index)	X	+/-	
	• 12.5.7 Cardiac rhythm interpretation (e.g. rate, rhythm, ST elevation, T wave configuration)	Х	X	X
	• 12.5.8 Twelve and 15 electrocardiogram changes consistent with myocardial injury, ischemia, or infarction	X	X	x
	 12.5.9 Pacemaker functions (e.g. sensing and capturing) 	х	х	x
	• 12.5.10 Intracranial pressures and waveforms	1		
	• 12.5.11 Cerebral perfusion pressure	X	+/-	
	• 12.5.12 Pulse oximetry	X	+/-	
	 12.5.13 End tidal carbon dioxide 	Х	X	Х
	 12.5.14 Ventilation information (e.g. tidal 	Х	+/-	
	volume, minute volume, oxygenation, rate, airway pressures, end-tidal CO2)	X	х	

Competency Statement	Criterion	L3	L2	L1
	 12.5.15 Ventilation support bipap 	X	X	x
	 assist control, synchronized intermittent mandatory ventilation, positive and expiratory pressure, pressure support ventilation, pressure control ventilation, volume control ventilation high frequency jet ventilation, high frequency oscillation 	X X	X	
	• 12.5.16 Weaning parameters (e.g. tidal volume, respiratory rate, minute ventilation, vital capacity, work of breathing, anxiety)	Х	Х	
	 12.5.17 Laboratory results (e.g. arterial blood gas, complete blood count, platelets, coagulation profiles, lactate, serum and urine electrolytes and osmolality, creatinine, blood urea nitrogen, CK- MB, cerebral spinal fluid, glucose, drug levels, blood gases, liver enzymes) 	Х	Х	x
	• 12.5.18 Oxygen delivery, extraction, consumption	Х	Х	+/-
	12.6 The critical care nurse compares collected data with expected patient responses and validates unexpected findings.	X	X	Х
	12.7 The critical care nurse integrates all findings from the assessment to identify collaborative and/or independent nursing diagnoses.	X	X	X
Outcome Standard 13 Interventions based upon the actual	13.1 The critical care nurse anticipates and prepares for life-threatening situations.	X	X	X
and potential nursing diagnoses are planned by the critical care nurse,	13.2 The critical care nurse establishes priorities for care with the patient/family.	X	X	Х
in collaboration with other members of the interdisciplinary health care team, to formulate the	13.3 The critical care nurse selects specific nursing interventions designed to achieve expected patient outcomes.	X	X	Х
overall plan of care.	13.4 The critical care nurse balances the science of curing with the art of caring.	X	X	X
	13.5 The critical care nurse incorporates the patient's pathophysiological, psychosocial, cultural, spiritual, and developmental needs into the plan of care.	X	X	Х
	13.6 The critical care nurse formulates measurable immediate and longer-term, patient-oriented goals with the patient and/or family and health care team.	Х	Х	Х
	13.7 The critical care nurse identifies realistic and measurable expected patient outcomes to be used in the evaluation of formulated goals.	Х	Х	Х
	13.8 The critical care nurse validates the plan of care with the patient, family and other members of the health care team.	X	X	X
	13.9 The critical care nurse identifies required resources to accomplish the plan of care.	X	X	X
	13.10 The critical care nurse documents and revises the plan of care as necessary.	X	X	X
	13.11 The critical care nurse identifies patient and family	X	X	X
	learning needs when formulating the plan of care. 13.12 The critical care nurse plans for patient and family support needs.	X	X	X

Competency Statement	Criterion	L3	L2	L1
Outcome Standard 14	14.1 The critical care nurse implements care that reflects	Х	Х	Х
The critical care nurse implements	established priorities.			<u> </u>
the plan of care including independent and interdependent	14.2 The critical care nurse documents interventions in the	Х	Х	Х
nursing functions.	patient's permanent record. 14.3 The critical care nurse communicates significant	X	X	X
nursing functions.	interventions to the patient, family and other members of	Λ	Λ	Λ
	the health care team in a timely manner.			
	14.4 The critical care nurse coordinates the delivery of the	Х	Х	Х
	patient's care.			
	14.5 The critical care nurse intervenes to provide effective airway clearance by:			
	• 14.5.1 Positioning (e.g. head of bed 30° unless contraindicated)	Х	Х	Х
	• 14.5.2 Managing airway (e.g. jaw thrust/chin lift, artificial airways, sniffing position)	Х	Х	Х
	 14.5.3 Managing the endotracheal tube/LMA sizing, hyperoxygenation, suctioning, cuff management, tapes/ties tracheostomy, tracheobronchial toilet 	X	X	
	• 14.5.4 Administering pharmacologic agents (e.g. bronchodilators)	Х	X	x
	• 14.5.5 Managing secretions (e.g. chest percussion, vibration, postural drainage)	х	х	x
	14.6 The critical care nurse intervenes to correct an			
	ineffective breathing pattern by:			
	• 14.6.1 Administering pharmacologic agents as ordered (e.g. oxygen, reversal agents, analgesics,	Х	Х	Х
	sedatives neuromuscular blocking agents)	Х	Х	
	• 14.6.2 Troubleshooting inadequate mechanical supports (e.g. disconnected ventilator, poor fitting, bipap mask, asynchrony between patient and the support device)	X	Х	
	• 14.6.3 Manually ventilating (e.g. bag-valve apparatus)	X	X	Х
	• 14.6.4 Assisting with interventions (e.g. intubation, chest tube insertion)	х	X	+/-
	14.7 The critical care nurse intervenes to correct impaired			
	 gas exchange by: 14.7.1 Managing changes in oxygenation (e.g. oxygen, continuous positive airway pressure, positive end expiratory pressure, proning) 	X	X	
	 14.7.2 Managing changes to manipulate minute ventilation (e.g. mode-assist control, synchronized intermittent mandatory ventilation) 	X	X	
	• 14.7.3 Managing changes to adjust pressure support ventilation	Х	X	
	• 14.7.4 Managing changes to manipulate pressure- controlled ventilation, high-frequency ventilation or inverse-ratio ventilation	X	Х	
	• 14.7.5 Administering pharmacologic agents:	v	v	v
	- oxygen, diuretics, bronchodilators	X	X	Х
	- nitric oxide, surfactant, helium	Х	+/-	

Competency Statement	Criterion	L3	L2	L1
	14.8 The critical care nurse intervenes to promote successful weaning from ventilatory supports by ensuring adequate nutrition, pain management, rest and the alleviation of anxiety.	Х	Х	
	14.9 The critical care nurse intervenes to correct alterations in cardiac output by:			
	 14.9.1 Manipulating preload/afterload (e.g. fluids, pharmacologic agents) 	X	X	Х
	 14.9.2 Manipulating contractility fluids, pharmacologic agents intra-aortic balloon pump 	X	X	X
	• 14.9.3 Manipulating heart rate or rhythm (e.g. fluids, pharmacologic agents, assisting with	X X	X X	+/-
	 pacing, cardioversion and defibrillation) 14.9.4 Troubleshooting invasive hemodynamic parameters 	X	X	
	 14.9.5 Participating in the management of a cardiac arrest (e.g. PALS, ACLS, protocols, administration of drugs) 	X	X	х
	• 14.9.6 Assisting with the insertion of invasive hemodynamic monitoring catheters (e.g. set up, leveling, patency)	Х	Х	
	• 14.9.7 Initiating and managing fluid therapy	x	x	x
	14.10 The critical care nurse intervenes to correct alterations in tissue perfusion (cardiopulmonary) by administering pharmacologic agents:			
	• Oxygen, vasodilators, anticoagulants, extra corporal membrane oxygenation	X	X	х
	Vasodilators, vasopressors, thrombolytic agents	Х	Х	Х
	4.11 The critical care nurse intervenes to correct alterations in renal perfusion by:			
	 7.11.1 Administering and managing fluids (e.g. calculating total fluid intake/output) 	X	X	X
	• 7.11.2 Administering pharmacologic agents (e.g. diuretics, vasodilators)	X	X	X
	• 7.11.3 Maintaining invasive interventions - ureteral stents, intermittent renal replacement - continuous renal replacement therapies	X X	х	
	• 7.11.4 Recognizing and minimizing the side effects of nephrotoxic pharmacologic agents (e.g. aminoglycosides, diuretics, vasopressors, radiographic dye)	X	X	+/-

Competency Statement	Criterion	L3	L2	L1
	14.12 The critical care nurse intervenes to correct alterations in cerebral perfusion by:			
	• 14.12.1 Using techniques to prevent obstruction and promote venous and cerebral spinal fluid drainage (e.g. elevate head of bed, positioning, techniques to minimize elevation of intrathoracic pressure)	Х	Х	Х
	• 14.12.2 Manipulating PaCO2	х	х	х
	using a bag-valve apparatusmechanical ventilation	X	X	X
	• 14.12.3 Minimizing stimulation	Х	Х	Х
	• 14.12.4 Administering pharmacologic agents (e.g. oxygen, anticonvulsants, diuretics, barbiturates, calcium channel blockers, sedatives, steroids, hyperosmolar therapy)	Х	Х	Х
	• 14.12.5 Manipulating cerebral perfusion pressures (e.g. pharmacologic agents, fluids, PaCO2 control)	X X	X X	X
	 14.12.6 Managing seizure activity 14.12 7 Assisting with insertion/maintenance of intracranial pressure monitoring or ventricular 	х	+/-	
	drainage devices (e.g. set up, drainage, positioning)	х	+/-	
	 14.12.8 Assisting with insertion or cerebral oxygenation monitoring devices 	X X	+/- X	x
	 14.12.9 Troubleshooting invasive intracranial parameters/waveforms 	х	x	x
	 14.12.10 Using techniques that minimize elevations in intrathoracic pressures (e.g. gastric drainage, pharmacologic agents, minimizing airway stimulation) 	x	х	Х
	 14.12.11 Administering fluid therapy (e.g. intracranial hypertension, hypervolemia, hypovolemia) 	х	х	X
	• 14.12.12 Controlling metabolic rate (e.g. invasive and non-invasive warming/cooling devices or fluids, pharmacologic agents, minimizing stimulation)	х	Х	Х
	 14.12.13 Preventing secondary injury (e.g. oxygen therapy, fluid management, blood pressure management, neuromuscular blockade) 	х	+/-	

Competency Statement	Criterion	L3	L2	L1
	14.13 The critical care nurse intervenes to correct alterations in gastrointestinal perfusion and gastrointestinal functions by:			
	• 14.13.1 Managing gastric bleeding (e.g. pharmacologic agents, gastric tubes, lavage)	Х	Х	Х
	• 14.13.2 Managing overdose (e.g. pharmacologic agents, gastric lavage, fluid administration)	Х	Х	Х
	 14.13.3 Maintaining gastric drainage 14.13.4 Promoting early and safe enteral feeding 	X X	X X	X X
	• 14.13.5 Promoting early and safe parenteral nutrition if enteral feeding cannot be initiated	Х	Х	Х
	 14.14 The critical care nurse intervenes in ineffective thermoregulation by promoting normothermia eg: Using invasive cooling devices 	x	x	
	Using non-invasive warming/cooling devices or fluids/ pharmacological agents	X	X	X
	 14.15 The critical care nurse promotes optimal comfort by: 14.15.1 Organizing care to optimize comfort (e.g. 			
	 timing, grouping and sequencing of activities) 14.15.2 Selecting, organizing, and administering 	Х	X	Х
	pharmacologic agents (e.g. analgesics, sedatives, regional blocks, epidural anesthetics/analgesia, patient controlled analgesia)	Х	Х	Х
	 14.15.3 Implementing and evaluating individualized pain management regimen (e.g. communication, appropriate use of touch, noise control, music therapy, visualization, relaxation teckniques, use of personal momentos, family member presence) 	X	X	Х
	14.16 The critical care nurse intervenes to prevent complications of immobility (e.g. range of motion, turning and positioning, deep breathing and coughing, sequential compression device, therapeutic surfaces, skin risk assessment)	X	X	X
	14.17 The critical care nurse minimizes/prevents motor and/or sensory deficits by:			
	• 7.20.1 Maintaining spinal cord integrity (e.g. positioning, immobilization devices, pharmacologic agents)	Х	X	X
	• 7.20.2 Intervening for spinal cord crisis (e.g. spinal shock, autonomic dysreflexia)	х	х	Х
Outcome Standard 15 The critical care nurse evaluates patient outcomes in accordance	15.1 The critical care nurse documents all medications and treatments administered, recognizing the importance of timely entries.	X	X	X
with a conception model for critical care nursing and consistent	15.2 The critical care nurse evaluates the patient/family's response to interventions.	X	Х	Х
with independent and interdependent nursing functions.	15.3 The critical care nurse compares collected data with expected outcomes.	Х	Х	Х

Competency Statement	Criterion	L3	L2	L1
	15.4 The critical care nurse analyzes gaps between actual	Х	Х	Х
	and expected outcomes.			
	15.5 The critical care nurse rapidly revises the plan of care	Х	Х	Х
	with the patient/family and/or health care team members			
	and implements alternatives.			
	15.6 The critical care nurse continues to evaluate the	Х	Х	Х
	revised plan of care.			
	15.7 The critical care nurse participates in quality	Х	Х	Х
	improvement activities (e.g. system effectiveness,			
	patient/family outcomes)			

REFERENCES

Canadian Association of Critical Care Nurses. (2004). Standards for Critical Care Nursing Practice.

College of Nurses of Ontario. (2002). *The Compendium of Standards of Practice for Nurses in Ontario*. Retrieved January 2006, from <u>http://www.cno.org/pubs/compendium</u>.html.

College of Nurses of Ontario. (2003). *Competency Review Tool*. Retrieved January 2006, from http://www.cno.org/docs/qa/44028_CRT.pdf.