

PRACTICE STANDARDS FOR Neonatal NURSING IN ONTARIO

**CRITICAL CARE SERVICES ONTARIO
(CCSO)**

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Practice Standards for Neonatal Nursing in Ontario	
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Acknowledgements

The *Standards for Neonatal Nursing in Ontario (2021)* have been developed to identify optimal neonatal nursing knowledge, skills, and competencies with the intent to establish a common standard for neonatal nursing practice within the province of Ontario. The standards have been adapted from the Canadian Association of Neonatal Nurses (CANN) Standards for Critical Care Nursing Practice (2017), which are adult-focused, and based on the current Standards of Nursing Practice of the College of Nurses of Ontario (CNO). In addition, the competencies outlined by the Canadian Nurses Association for Neonatal Nurses (2017), and the Standards of Practice for Neonatal Nurses published by the National Association of Neonatal Nurses (NANN, 2018) were used to refine the standards. A focus group, comprised of nursing leaders from Level 2 and Level 3 Neonatal Intensive Care Units (NICU), including neonatal transport team representation, academic and regional stakeholders were brought together to revise and develop nursing standards that apply to all NICU nurses.

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We would like to thank the Practice Standards Task Force members for their commitment to ensuring that neonatal nurses in Ontario have standardized practice guidelines to ensure that neonates and their families receive the highest quality of care.

Introduction

The neonatal nurse provides specialized care to neonates born either prematurely or at term but who have illnesses associated with the transition to extrauterine life that increases their risk for morbidities. The neonatal nurse provides continuous support to the family of the neonate during their hospitalization. This trajectory of neonatal care is from birth until discharge from the hospital and may include post-discharge follow-up care. Neonatal care is complex, intensive, and continuous. The neonatal nurse works effectively and collaboratively, within a culturally diverse community, demonstrating cultural sensitivity and awareness, and consistently incorporating the cultural preferences of the family into the plan of care.

The *Practice Standards for Neonatal Nursing in Ontario* specify that neonatal nursing practice includes neonate-child and family-focused care, in alignment with an inter-professional practice philosophy. [Note: Family is defined as whoever is deemed family by the family of the neonate (Public Health Agency of Canada, 2021)]. These standards are intended to provide clarity on what is required of a health care facility and the NICU to support the effective implementation of Neonatal Nursing Practice Standards by each nurse working within a NICU environment.

The intensity of neonate care requirements differs between Level 2 and Level 3 neonatal intensive care units (NICU) as intensity assessment is based on the neonates' clinical needs and illness trajectory. As a result, the level of complexity of nursing skills required for nurses practicing in Level 2 units may differ from the more complex skills required of nurses practicing in Level 3 NICUs. Regardless of the level of care provided by the NICU, neonatal nurses comprehensively and continuously assess subtle changes in the neonate's clinical condition, nonverbal cues, and physiological status. The neonatal nurse is also an advocate for both the neonate and family, working collaboratively with and leveraging their strengths, to optimize care. The neonatal nurse works collaboratively with and as an active member of the interprofessional team. Neonatal nurses have specialized theoretical and evidence-informed knowledge and skills related to neonatal care, critical thinking, problem-solving, leadership, advocacy, judgment, and comprehensive communication. A nurse in this practice setting requires a supportive and safe work culture, fostered by the strong leadership of the health care facility and neonatal unit (see Appendix A).

Quality neonatal critical care nursing practice requires the engagement and interconnection of three elements: the health care facility, the neonatal unit, and the neonatal nurse.

- The **health care facility** creates the necessary safety culture and quality environment that provides the foundation for high-quality nursing practice. Supported by the Ontario Health Region, and Critical Care Services Ontario (CCSO), the health care facility drives quality and performance improvement through their accountability mechanisms.
- The **neonatal unit** enacts a quality care framework within its policies and processes, contributes to data reporting, using relevant indicators and neonatal scorecards, including entering data into the Critical Care Information System. The neonatal unit also provides oversight mechanisms to create conditions for the provision of evidence-informed, high quality, and safe care by the individual nurse to achieve best practice.

The **neonatal nurse**, utilizing specialized knowledge and building on previous experience, progresses along the continuum from novice to expert neonatal nurse. The neonatal nurse maintains professional competence through ongoing learning and reflective practice. The neonatal nurse contributes positively to the image of nursing and is committed to the delivery of high quality and safe neonate care, fostering the delivery of evidence-informed and best practices within critical care nursing

The *Practice Standards for Neonatal Nursing in Ontario* include 17 competency statements that are organized into 5 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 competency includes associated criteria and/or performance behaviors related to the three elements (organization, unit, and/or nurse). The Neonatal Nursing Practice Standards are consistent with Practice Standards for Critical Care Nursing in Ontario (2018), developed by Critical Care Services Ontario (CCSO).

The *Practice Standards for Neonatal Nursing in Ontario (2021)* are intended for use by neonatal nurses, and neonatal nursing leaders (e.g., managers, educators, advanced practice nurses) across the province of Ontario.

NOTE: *Competencies and Criteria in which intensity of nursing skills may vary by NICU level of care (e.g., Level 2 or Level 3) have been identified by an asterisk (*).*

The *Practice Standards for Neonatal Nursing in Ontario* will be reviewed every 3 years and edited as required, to ensure quality, currency, relevance, and consistency with evidence.

Neonatal Nursing Standards Categories and Competency Statements

PROFESSIONAL BEHAVIOUR/ETHICS

Competency Statement

1. The neonatal nurse practices within the scope of regulatory, professional, legal, and ethical standards.

CONTINUING COMPETENCE AND RESEARCH

Competency Statements

2. Personnel assigned roles and responsibilities within the NICU (related to the structure of the neonatal unit) are qualified and current in practice.
3. A mechanism for communication and establishment of policy/procedures, such as a Neonatal Care Committee, is established and endorsed by the health care facility in collaboration with the neonatal care team (related to the structure of the neonatal unit).
4. There is a shared accountability of the neonatal nurse along with the unit and organization to seek out and obtain the education to maintain, enhance and improve his/her practice.

CLIENT AND NURSE SAFETY/RISK PREVENTION

Competency Statements

5. The health care facility provides a quality and safe work environment.
6. The neonatal nurse, in partnership and collaboration with parents and other members of the interprofessional health care team, formulates the plan of care.
7. The health care facility provides opportunities for the neonatal nurse to maintain the knowledge and skills necessary to deliver safe and optimal care within the context of the chosen conceptual model of nursing practice.

THERAPEUTIC AND PROFESSIONAL RELATIONSHIPS/CARING

Competency Statements

8. The family is the primary unit for care.
9. In collaboration with members of the interprofessional health care team and in partnership with the neonate's family, data are continuously analyzed by the neonatal nurse to: identify family values, beliefs, priorities, preferences, and the neonate's care needs; formulate a care plan, and provide interventions which are evidence-informed, culturally appropriate and are grounded in trauma-informed principles.
10. The neonatal nurse establishes and evaluates neonate outcomes consistent with the organizational conceptual model for neonatal nursing and consistent with independent and interdependent nursing functions.
11. The neonatal nurse continuously assesses, monitors, and evaluates data regarding the neonate's behavioural cues in addition to the family's emotional and psycho-social responses to changes in clinical condition and NICU hospitalization.
12. The neonatal nurse provides a therapeutic environment that facilitates family cohesion through the integration of evidence-informed practices, promoting optimal developmental outcomes, while supporting physiologic stability. The goal of care is to optimize the neonate's growth and neurodevelopmental potential by supporting their ongoing development to maximize outcomes.

CLINICAL SKILLS, KNOWLEDGE, INTEGRATION, AND CRITICAL THINKING

Competency Statements

13. The neonatal nurse utilizes knowledge of developmentally supportive care, which addresses the dynamic relationship between a neonate's behavioural cues and the environment to guide the care that is provided.
14. The neonatal nurse, using the professional knowledge, continuously analyzes data to formulate nursing responses and interventions, in the context of family preference and in collaboration with the interprofessional team, to formulate a comprehensive plan of care.
15. The neonatal nurse, in partnership with the family and members of the interprofessional health care team, implements the plan of care, using specialized skills and knowledge within their professional scope of practice to promote high quality, evidence-informed and safe care.
16. The neonatal nurse strives to ensure the use of evidence-informed practices and advocates for research to address areas lacking evidence to support practice.
17. The neonatal nurse evaluates outcomes aligned with the conceptual model for neonatal nursing care and consistent with independent and interdependent nursing functions.

Professional Behaviour/Ethics

Competency Statement

1. The neonatal nurse practices within the scope of regulatory, professional, legal, and ethical standards.

Criteria

The health care facility:

- 1.1. Complies with all appropriate legislation and, in collaboration with the Ontario's Home and Community Care Support Services, strives to achieve CCSO Critical Care Strategic Goals.

The neonatal unit:

- 1.2. Monitors, evaluates, and reports unit-based performance data and participates in improvement activities related to the health care facility's Quality Improvement Plan
- 1.3. Ensures unit staff and physicians are aware of performance data and are engaged in determining improvement activities.

The neonatal nurse:

- 1.4. Incorporates professional, legal, and ethical neonatal standards into practice.
- 1.5. Practices child and family-focused care, and is focused on engaging families in the care process
- 1.6. Ensures neonate and family privacy and confidentiality within the limits of the environment
- 1.7. Participates in fostering a culture of safety by identifying and mitigating potential risks, and proactively reporting near misses and errors, omissions, and incidents promptly as well as participating in disclosure to and support of the family and colleagues
- 1.8. Follows guidelines for reporting data to appropriate agencies (e.g., Critical Care Information System, Child Protection Services)
- 1.9. Identifies potential organ and tissue donors through adherence to Trillium Gift of Life Network¹- End of Life Care guidelines and legislation
- 1.10. Responds promptly to environmental, physical, and psychosocial stress factors that impact inter-professional team members in the critical care setting
- 1.11. Participates in neonatal research and incorporates research findings into practice where applicable
- 1.12. Recognizes the delineation between the practice of neonatal nursing and the practice of neonatal medicine
- 1.13. Develops and maintains professional relationships, focusing on working with others in a positive, collaborative, and respectful manner
- 1.14. Develops and maintains professional relationships by conducting oneself in a way that promotes respect for team members and contributes to positive team functioning

¹. Trillium Gift of Life Network was created in December 2000 by the Ontario Government and assumed the role of Ontario's central organ and tissue donation agency with the challenge to significantly increase organ and tissue donation across the province and improve related processes and functions. Source: www.giftoflife.on.ca

Continuing Competence and Research

Competency Statement

2. Personnel assigned roles and responsibilities within the neonatal unit (related to the structure of the neonatal unit) are qualified and current in practice.

Criteria

The health care facility:

- 2.1 Ensures there are hiring practice policies and procedures to ensure qualified individuals are recruited and hired.
- 2.2 Ensures all employees receive an orientation to the assigned clinical area which reflects facility-wide requirements as well as unit-specific needs.
- 2.3 Provides the structure and materials to ensure that research is feasible and ethical.

The neonatal unit:

- 2.4 Ensures nurses with appropriate preparation, education, or experience in neonatal nursing are responsible for direct patient and family centred care.
- 2.5 Ensures that patient assignments are based on skills, knowledge, and ability of the neonatal nurse and the patient's needs and acuity
- 2.6 Ensures that all neonatal nursing personnel receive a performance appraisal at regular intervals, as per the health care facility 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

The neonatal nurse:

- 2.7 Remains current with evidence-informed practice changes on the unit and identifies and reports to supervisor if further skill development is required.
- 2.8 Attends education, training, and workshops to maintain clinical competency.
- 2.9 Promotes and participates in research as appropriate, incorporates evidence-informed practice, and disseminates best practices.
- 2.10 Provides leadership to other members of the neonatal care team by acting as a resource person, preceptor, and mentor.

Competency Statement

3. A mechanism for communication and establishment of policy/procedures, such as a Neonatal Care Committee, is established and endorsed by the health care facility in collaboration with the neonatal care team (related to the structure of the neonatal unit).

Criteria

The neonatal unit:

- 3.1 Ensures there is broad representation from all levels of neonatal nursing, medicine, and allied health care professionals involved in patient care and family advisory
- 3.2 Ensures Administration works in collaboration with those represented in 3.1 in an advisory or decision-making capacity with responsibilities for, but not limited to:
 - Unit philosophy, goals, and objectives
 - Structural planning
 - Strategic planning
 - Policies and procedures
 - Program development and evaluation

CONTINUING COMPETENCE AND RESEARCH (CONTINUED)

- Establishment of a mechanism for resolving issues related to interdepartmental and interprofessional matters, and resource allocation
 - Unit quality improvement activities, ensuring alignment with Quality Improvement Plan and Accreditation Canada Standards
 - Ensuring accountability for improvement on all indicators, including publicly reported outcomes
 - Mechanisms and methods to analyze, plan, and act on statistical data, related utilization, and outcome measures
 - Other activities as deemed appropriate in the organizational setting
- 3.3 Reviews and endorses written information regarding the neonatal unit including, but not limited to: unit philosophy, strategy, goals, and objectives
- Organizational chart
 - Dependent nursing responsibilities²
 - Medical responsibilities
 - Roles and responsibilities of other health professionals within the unit
- 3.4 Reviews and endorses written policies and procedures specific to the neonatal unit including, but not limited to:
- Admission, transfer, and discharge criteria
 - Surge Capacity Management Plan
 - Fire, disaster, and evacuation
 - Medication administration and other treatments
 - Delegation of medical function(s) and shared competencies
 - Protocols for management of specific neonatal conditions

Competency Statement

4. There is shared accountability of the neonatal nurse along with the unit and organization to seek out and obtain the education to maintain, enhance and improve his/her practice.

Criteria

The neonatal unit:

- 4.1 Will regularly provide opportunities for nursing education and practice of rarely used neonatal care skills on an annual basis.
- 4.2 Will provide educational opportunities for any new skill for nurses in the neonatal unit.

The neonatal nurse:

- 4.3 Will seek opportunities to continually learn innovations in neonatal care to enhance knowledge, skills, and competencies

²**Dependent Nursing Functions:** those actions that are based on the laws that regulate or authorize the nursing practice (RHPA, CNO). It is not based on a physician's order.

Interdependent Nursing Functions: the inter-relationships of the nurse with the patient and the other members of the health care team; typically the interdependence of nursing and medicine

Independent Nursing Function: the actions that the nurse can perform independently within the scope of practice and is accountable for and how the nurse performs those functions.

Client and Nurse Safety/Risk Prevention

Competency Statement

5. The health care facility provides a quality and safe work environment.

Criteria

The health care facility and neonatal unit:

- 5.1 Have defined, transparent processes for timely reporting and responding to concerns from all employees and families, including unusual occurrences, errors, and near misses.
- 5.2 Have defined and transparent processes to ensure families are engaged in decision making that can influence or impact patient care such as Patient Advisory Councils, family representation on committees³.
- 5.3 Implements and adheres to Required Organization Practices and Accreditation Canada Standards and the Occupational Health and Safety Act (2017).
- 5.4 Establishes corporate safety management and reporting system which enables reporting of safety events and monitoring of trends, and comprehensively address nurse safety and wellbeing.

The neonatal nurse:

- 5.5 Contributes to the development of a culture of safety within the neonatal environment by ensuring safety concerns are brought forward to a supervisor promptly.
- 5.6 Utilizes the unit or organization-based safety reporting system to report any identified potential or actual safety concerns and/or events.
- 5.7 Ensures personal safety by utilizing appropriate personal protective equipment as per hospital/unit policy and protocols.
- 5.8 Follows and complies with hand-hygiene expectations as per infection prevention and control practices.
- 5.9 Ensures that environmental hazards are minimized, e.g., risk of trips/falls associated with equipment, or cords.

Competency Statement

6. The neonatal nurse, in partnership with parents, collaborates with other members of the interprofessional health care team to formulate the plan of care.

Criteria

The neonatal nurse:

- 6.1 Formulates the plan of care in alignment with a culture of quality, safety, and risk prevention
- 6.2 Practices within an inter-professional team and actively engages in implementation of evidence-informed best practice concerning clinical care and patient safety for patients, family, and members of the health care team when developing the plan of care.
- 6.3 Monitors and evaluates results of the clinical plan of care, then, according to evidence and in discussion with the team, including the family, makes revisions to the plan accordingly.

³ According to the *Health Consent Act*, 'substitute decision-maker' refers to a person who is authorized under section 20 to give or refuse consent to a treatment on behalf of a person who is incapable with respect to the treatment. 1996, c. 2, Sched. A, s. 9. Source: http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_92s30_e.htm

CLIENT AND NURSE SAFETY/RISK PREVENTION (CONTINUED)

Competency Statement

7. The health care facility provides opportunities for the neonatal nurse to maintain the knowledge and skills necessary to deliver safe and optimal care within the context of the organization's conceptual model of nursing practice.

Criteria

The neonatal unit:

- 7.1 Develops criteria for hiring nurses based on the knowledge and skill requirements of the job
- 7.2 Provides an orientation program which:
 - Is based on a learning needs assessment and is competency-based
 - Includes principles of family focused care, cultural safety
 - Includes specific unit philosophy, goals, policies and procedures, strategy, as well as an organizational chart for the unit
 - Includes physical layout and instructions on the use of unit equipment
 - Includes a clinical and theoretical component, the content and length of which is based on the level, the type of unit, and the learning needs identified by learners.
- 7.3 Provides continuing education and communication related but not limited to the following:
 - New or revised policies and procedures
 - The use of new or updated equipment
 - Advanced skills or skills used infrequently (e.g., set up of central lines, chest drains, blood sampling from arterial lines, or other skills as needed/identified by the health care facility)
 - Roles and responsibilities of the neonatal nurse, including the role of charge nurse, preceptor, or mentor as well as other members of the interprofessional team
 - Role of the neonatal nurse on the health care team
 - Theory and concepts pertinent to the neonatal patient population
 - Critical incident stress management for all staff members
 - The use and fitting of personal protective equipment for all staff involved in patient care
- 7.4 Evaluates the knowledge and competencies of the neonatal nurse on an ongoing basis.
- 7.5 Ensures the availability of current resources relevant to the neonatal population.

The neonatal nurse:

- 7.6 Attends educational opportunities to enhance clinical skills and theoretical knowledge.
- 7.7 Ensures competence in all skills performed. Self-identifies issues with competency and informs supervisor if an update is required.
- 7.8 Maintains current knowledge about unit policy or procedural changes.

Therapeutic and Professional Relationships/Caring

Competency Statement

8. The family is the primary unit for care.

Criteria

The neonatal unit ensures that:

- 8.1 All information about the functioning of the unit for families refers to families as families and not as “visitors”, and facilitates processes that welcome the family to be present 24 hours per day
- 8.2 Families have unrestricted access to the unit, to be with their neonates
- 8.3 It strives to provide dedicated space that is exclusive for family use
- 8.4 It supports families as decision-makers including striving to have them engaged in bedside rounds
- 8.5 It has policies/procedures/protocols /practices that outline that families are integral members of the care team
- 8.6 It provides a physical environment that promotes family engagement/partnership in all aspects of care
- 8.7 There is a process in place for review of family feedback and process improvement

The neonatal nurse:

- 8.8 Facilitates parental involvement in care at all times
- 8.9 Identifies barriers to family participation and strives to reduce or eliminate them
- 8.10 Coordinates and collaborates with family so they may provide care, e.g., accommodates neonate cues and family schedules
- 8.11 Encourages and facilitates family involvement in decision-making as part of the care team
- 8.12 Supports parents/family to be actively involved in care based on neonate’s clinical condition and behavioural cues
- 8.13 Individualizes care and is respectful of family goals/wishes and preferences
- 8.14 Is respectful of and strives to accommodate family needs, privacy, cultural needs, preferences, and mutually agreeable approaches
- 8.15 Consistently uses language that acknowledges the parent’s essential role as parents, maintaining a professional therapeutic relationship and rapport when discussing the neonate.
- 8.16 Fosters an environment that promotes family integrated care that reflects family preferences

THERAPEUTIC AND PROFESSIONAL RELATIONSHIPS/CARING (CONTINUED)

Competency Statement

9.0 In collaboration with members of the interprofessional health care team and based upon knowledge of nursing, biological, physical, psycho-social, and behavioural sciences, and in partnership with the neonate's family, respecting their cultural values and beliefs. Data are continuously analyzed by the neonatal nurse to: identify family values, beliefs, priorities, preferences, and the neonate's problems; formulate a care plan, and provide interventions which are evidence-informed, culturally appropriate and grounded in trauma-informed principles.

Criteria

The neonatal nurse:

- 9.1 Addresses significant findings with other members of the inter-professional team, and families.
- 9.2 Leads the development of an individualized and holistic plan of care in collaboration with the family, and other health care team members
- 9.3 Assesses and leverages parent/family strengths to optimize the plan of care to support optimal neonate outcomes, considering their unique needs and integrating relevant social determinants of health
- 9.4 Assesses and recognizes the potential impact of previous trauma on families on their coping and integrates strategies to ensure the plan of care promotes mental health and does not compound previous trauma
- 9.5 Considers all diversities including Indigenous peoples, and partners with the family to integrate their values, beliefs, and preferences into the care plan

Competency Statement

10. The neonatal nurse promotes optimal health and establishes and evaluates associated neonate outcomes consistent with the organizational conceptual model for neonatal nursing and consistent with independent and interdependent nursing functions.

Criteria

The neonatal nurse:

- 10.1 Optimizes communication with the family by:
 - Assessing current communication status by using all techniques available and involving the family in interpreting the neonate's behavioural cues (e.g., eye contact, touch, measures that comfort the neonate)
 - Ensuring that family members have the knowledge to recognize and interpret their neonate's cues and modify their responses accordingly, e.g., eye contact, touch, providing comfort
 - Encouraging and sharing with the family, and other members of the inter-professional health care team strategies, how to interact with the neonate, e.g., use of developmental care interventions
 - Continuously evaluating the effectiveness of the interactions
- 10.2 Intervenes to facilitate optimal family processes by:
 - Offering opportunities and information to facilitate parent-neonate bonding and attachment with their neonate
 - Using language that is consistent with the parent(s) and family(s) level of understanding, culture, and circumstances of the family
 - Providing an opportunity for the family to verbalize feelings and concerns, using other supports when needed

THERAPEUTIC AND PROFESSIONAL RELATIONSHIPS/CARING (CONTINUED)

- Demonstrating concern and acceptance through compassionate and empathetic verbal and nonverbal communication
- Providing honest and realistic information to the parent(s)
- Providing ongoing support
- Providing frequent and regular exchange of information related to the neonate's condition and plan of care and ensure they understand the information

Competency Statement

11. The neonatal nurse continuously assesses, monitors, and evaluates data regarding the neonate's behavioural cues in addition to the family's emotional and psycho-social responses to changes in clinical condition and NICU hospitalization.

Criteria

The neonatal nurse:

- 11.1 Reports, discusses and addresses significant differences between actual and expected outcomes with the appropriate inter-professional team members and transfer the accountability for the plan of care at the neonate's transition points, such as:
- Admission to the unit
 - Beginning of each shift
 - Change of patient assignment
 - Change in neonate's clinical status
 - When providing handover of care upon transfer to another unit
- 11.2 Assesses, interprets, and evaluates data continually, based on a comprehensive assessment of physiological, laboratory, and diagnostic data, as well as interactions with the family as needed and using technological supports, both invasive and non-invasive
- 11.3 Collects laboratory specimens as per hospital policy as indicated (e.g., aspirate via an endotracheal tube, blood via capillary, venous, arterial sample, invasive lines)
- 11.4 Continuously monitors pathophysiological, psycho-social, ethnocultural, developmental, and spiritual needs of the neonate and family in the context of the neonate's evolving condition.
- 11.5 Obtains a comprehensive health history using all available and appropriate sources
- 11.6 Assesses data regarding infection and transmission risks to patients, family, and staff and takes all necessary infection control measures to proactively mitigate risk, including ensuring adherence to routine practices.

Competency Statement

12. The neonatal nurse provides a therapeutic environment that facilitates family cohesion, attachment and bonding through the integration of evidence-informed practices, promoting optimal developmental outcomes while supporting physiologic stability. The goal of care is to optimize neonate's growth and neurodevelopmental potential by supporting ongoing development to maximize outcomes.

Criteria

The neonatal unit:

- 12.1 Provides devices to support developmentally appropriate positioning and care
- 12.2 Has process/procedures in place to support nurses to escalate care concerns

THERAPEUTIC AND PROFESSIONAL RELATIONSHIPS/CARING (CONTINUED)

- 12.3 Implements processes based on the collection and review of morbidity, mortality, and outcome data and identifies potential implications for the neonate.
- 12.4 Strives to ensure the physical environment is modified to minimize neonate and family distress (e.g., noise & light, etc.)

The neonatal nurse:

- 12.5 Utilizes knowledge of how the environment and care impact neurodevelopmental development of the neonate, including developmentally appropriate positioning
- 12.6 Uses techniques that minimize behavioural disruption and/or dysregulation in the neonate
- 12.7 Recognizes the importance of holistic care, supporting and facilitating the family's adaptive and coping skills, and advocating for required resources.
- 12.8 Integrates age-appropriate care during activities such as feeding and handling, ensuring appropriate responses to the neonate's "time out" cues, educating the family about developmentally significant responses, e.g., distress behaviours
- 12.9 Works with the family to modify interventions based on their neonate's responses
- 12.10 Provides and supports time for protected sleep
- 12.11 Routinely assesses and manages pain and stress, implementing appropriate evidence-informed, pharmacologic, and non-pharmacologic interventions and evaluating their effectiveness.
- 12.12 Partners with the family to integrate age-appropriate activities of daily living into an individualized plan of care
- 12.13 Cultivates a healing and supportive environment that enhances the family's capacity to care and advocate for their neonate.

Clinical Skills, Knowledge, Integration and Critical Thinking

Competency Statement

- 13. The neonatal nurse utilizes knowledge of developmentally supportive care, which addresses the dynamic relationship between an neonate's behavioural cues and the environment, to guide the care that is provided.

Criteria

The neonatal nurse:

- 13.1 Anticipates and prepares for acute or subtle changes in clinical condition
- 13.2 Establishes priorities and goals for care in collaboration with the family and members of the inter-professional team
- 13.3 Selects specific nursing interventions designed to achieve optimal patient outcomes
- 13.4 Incorporates the family's psycho-social, ethnocultural, spiritual, and developmental needs into the plan of care
- 13.5 Collaborates with the family and health care team to establish measurable, immediate, and longer-term, family-oriented goals
- 13.6 Collaborate with the family and health care team to identify realistic and measurable optimal patient outcomes to be used in the evaluation of formulated goals
- 13.7 Validates the plan of care with the family and other members of the health care team
- 13.8 Identifies and secures required resources to implement the plan of care
- 13.9 Documents and revises the plan of care as necessary as per unit policy and professional standards

CLINICAL SKILLS, KNOWLEDGE, INTEGRATION, AND CRITICAL THINKING (CONTINUED)

- 13.10 Identifies and integrates educational strategies to address family learning needs when formulating the plan of care
- 13.11 Anticipates, develops plans, and secures resources to meet family support needs
- 13.12 Collaborates with family and the interprofessional team to prepare for transitions in care, ultimately from hospital to home
- 13.13 Integrates current knowledge and skills in planning for and supporting families of neonates requiring palliative and bereavement care

Competency Statement

- 14 Using the knowledge of nursing, biological, physical, psycho-social, and behavioural sciences, data are continuously analyzed by the neonatal nurse to formulate nursing responses and interventions in the context of family preferences and in collaboration with the interprofessional team to formulate a comprehensive plan of care.

Criteria

The neonatal nurse:

- 14.1 Analyzes unexpected neonate responses and makes rapid decisions about priorities of care
- 14.2 Escalates care concerns to appropriate interprofessional team members to address acute changes in the condition of the neonate and the needs of the family
- 14.3 Anticipates, intervenes, and delivers measures to manage multi-organ and single system organ failure, as well as provides evidence-informed care to prevent complications and promote optimal health; including but not limited to addressing:
 - Transition from an intrauterine environment to an extra-uterine environment
 - Promotion of optimal health, including but not limited to, airway management, which may include respiratory failure secondary to the immaturity of the respiratory system, impaired gas exchange, mechanical failure, respiratory muscle fatigue, inflammation, infection, inhalation injury, obstruction
 - Management of shock and/or hypotension due to hypovolemia, cardiogenic shock, septic shock, arrhythmias, obstruction, or inflammation
 - Alteration in cardiac output due to mechanical or metabolic dysfunction
 - Brain injury from pregnancy and birth-associated asphyxia, intraventricular hemorrhage, head trauma, seizures, meningitis, neurogenic shock, alterations in cerebral perfusion, increased intracranial pressure, and ischemic insult
 - Assessing and managing neonate pain
 - Gastrointestinal tract abnormalities due to altered embryological development, immaturity, compromised perfusion (antenatal, intrapartum, post-delivery), bleeding, infection, inflammation, obstruction, infarction
 - Acute renal failure resulting in a fluid, electrolyte, and/or acid-base imbalance
 - Vascular tissue perfusion abnormalities
 - Skin breakdown, including pressure injury, loss of skin integrity due to prematurity, thermal injury, trauma, surgery, infection, loose stools associated with conditions such as neonatal abstinence syndrome
 - Abnormalities in fluid balance
 - Ineffective thermoregulation, including hypothermia and hyperthermia
 - Alterations in musculoskeletal function (e.g., contractures, fractures)
 - Alterations in endocrine function (e.g., hypoglycemia, hypo/hyperthyroid, pancreas, pituitary gland malfunction)

CLINICAL SKILLS, KNOWLEDGE, INTEGRATION, AND CRITICAL THINKING (CONTINUED)

- Alterations in metabolic function (e.g., inborn errors of metabolism)
- Alterations in immunologic function (e.g., sepsis)
- Alterations in hematologic function (e.g., anemia, polycythemia)
- Alterations in growth and development, including alterations in the nutritional state (e.g., small for gestational age)
- Alterations in family coping and adaptation
- End-of-Life care

14.4 Interprets, evaluates, and responds to pertinent diagnostic data in a timely and effective manner

Competency Statement

NOTE: *Competencies and Criteria in which intensity of nursing skills may vary (i.e., required for increased patient acuity, or LEVEL 3 care) have been identified by an asterisk (*).*

15. The neonatal nurse, in partnership with the family and members of the inter-professional health care team, implements the plan of care, using specialized skills and knowledge within their professional scope of practice to promote high quality, evidence-informed, and safe care in acute situations*

Criteria

The neonatal nurse:

- 15.1 Implements care that reflects established standards and evidence-informed practices (e.g., developmentally appropriate care, nutrition, Central Line Associated Blood Stream Infections (CLABSI) and Ventilator-Associated Pneumonia (VAP) prevention bundles)
- 15.2 Ensures timely and accurate documentation in the neonate's health record following hospital policies and CNO standards
- 15.3 Communicates the plan of care, including all interventions, to the family and other members of the inter-professional health care team promptly
- 15.4 Coordinates care for the neonate and family
- 15.5 Intervenes to ensure effective airway management, including any associated respiratory failure secondary to impaired gas exchange or mechanical failure (as per Neonatal Resuscitation Program Guidelines – CPS, 2020), which may include but are not limited to:
 - Airway instability or blockage
 - Managing invasive or non-invasive ventilation modalities, including administration and monitoring of oxygen*
 - Administering and monitoring of broncho-dilators*
 - Sizing, suctioning, tube management, tapes/securement device*
 - Tracheostomy, tracheobronchial care and ensuring airway patency*
 - Managing secretions
 - Monitoring the adequacy of mechanical supports*
 - Administering pharmacologic agents as required
 - Optimization of non-pharmacological strategies (e.g., positioning, non-nutritive sucking)
 - Performing or assisting with clinical procedures such as suctioning *
 - Administration of oxygen as clinically indicated and based on assessment

CLINICAL SKILLS, KNOWLEDGE, INTEGRATION, AND CRITICAL THINKING (CONTINUED)

- 15.6 Promotes successful weaning from ventilatory supports by ensuring adequate nutrition and fluids, pain management, and developmentally supportive care*
- 15.7 Intervenes to correct shock associated with hypotension, arrhythmias, and alterations in cardiac output, which may include but are not limited to*:
- Manipulating preload/afterload (e.g., fluids management, administration of pharmacologic agents)
 - Manipulating contractility (e.g., pharmacological agents)
 - Monitoring invasive hemodynamic parameters
 - Collaborating in the management of a cardiac arrest, respiratory arrest, or other unexpected events (e.g., Neonatal Resuscitation protocols)
 - Assisting with the insertion and management of invasive hemodynamic monitoring catheters (e.g., umbilical, catheters, arterial line, central venous pressure)
 - Initiating and managing fluid therapy
 - Administering and monitoring vasodilators, vasopressors, and thrombolytic agents
- 15.8 Implements interventions to manage acute renal failure by using pharmacological or technical methods – may include but not limited to*:
- Administering and managing fluids (e.g., calculating total fluid intake/output)
 - Administering pharmacologic agents (e.g., diuretics, vasodilators)
 - Maintaining invasive interventions and fluid and toxin removal (e.g., Nephrostomy tubes, continuous renal replacement therapies including peritoneal dialysis)
 - Recognizing and minimizing the side effects of nephrotoxic pharmacologic agents (e.g., aminoglycosides, diuretics, vasopressors, radiographic dye)
- 15.9 Intervenes to correct alterations in cerebral perfusion – may include but not limited to*:
- Using techniques to prevent obstruction and promote venous and cerebral spinal fluid drainage (e.g., elevate the head of the bed to 30 degrees, positioning the head in a neutral position, techniques to minimize elevation of intracranial pressure)
 - Adjusting care to alter PaCO₂
 - Using a bag-valve apparatus
 - Mechanical ventilation
 - Minimizing over-stimulation
 - Administering pharmacologic agents (e.g., oxygen, anticonvulsants, diuretics, barbiturates, sedatives, steroids)
 - Manipulating cerebral perfusion pressures (e.g., pharmacologic agents, fluids, PaCO₂ control, external ventricular drainage)
 - Monitoring and managing seizure activity (e.g., aEEG)
 - Assisting with insertion/maintenance of intracranial pressure monitoring and/or ventricular drainage devices (e.g., set up, drainage, positioning)
 - Assisting with the insertion of cerebral oxygenation monitoring devices
 - Troubleshooting invasive intracranial monitoring/waveforms
 - Using techniques that minimize elevations in intrathoracic pressures (e.g., gastric drainage, pharmacologic agents, minimizing airway stimulation)
 - Administering fluid therapy (e.g., intracranial hypertension, hypervolemia, hypovolemia)

CLINICAL SKILLS, KNOWLEDGE, INTEGRATION, AND CRITICAL THINKING (CONTINUED)

- Controlling metabolic rate (e.g., non-invasive warming/cooling devices or fluids, pharmacologic agents, minimizing stimulation)
 - Preventing secondary injury (e.g., oxygen therapy, fluid management, blood pressure management, managing neuromuscular blockade, and external ventricular drainage)
- 15.10 Intervenes to correct alterations in the gastrointestinal tract – may include but not limited to*:
- Promoting early and safe enteral feeding
 - Promoting early and safe parenteral nutrition if enteral feeding cannot be initiated or supplementing enteral feeds
 - Intervening to address ineffective thermoregulation by promoting normothermia (e.g., cold stress)
 - Managing gastric bleeding (e.g., pharmacologic agents, gastric tubes, lavage)
 - Maintaining and monitoring gastric drainage
- 15.11 Monitoring for bleeding from puncture sites, administering blood products as prescribed for haematologic conditions
- 15.12 Promotes optimal comfort and safety by:
- Utilization of validated assessment and interventional tools for complex conditions (e.g., neonatal abstinence scoring tool, pressure injury risk, pain assessment scoring)
 - Organizing care (e.g., timing, clustering, cue-based care, and sequencing of activities)
 - Selecting, organizing, and administering pharmacologic agents (e.g., analgesics, sedatives, regional blocks, epidural anesthetics/analgesia)
 - Implementing and evaluating individualized pain management regimen (e.g., appropriate use of touch, noise control, family involvement, pharmacological and non-pharmacologic)

Competency Statement

16. The neonatal nurse strives to ensure the use of evidence-informed care and advocates for research in areas lacking evidence to support practice.

Criteria

The neonatal unit:

- 16.1 Provides ongoing educational opportunities for nursing staff related to neonatal care
- 16.2 Provides ongoing clinical updates to staff as required
- 16.3 Provides access to relevant evidence for use in practice, e.g., journals, evidence-informed sessions, journal clubs, etc.
- 16.4 Supports development of research ideas and exploration of current relevant research through unit-based research committees, journal clubs.

The neonatal nurse:

- 16.5 Maintains knowledge related to new and revised policies and procedures in the neonatal unit.
- 16.6 Utilizes educational resources to ensure current knowledge of neonatal research and practice.
- 16.7 Participates in research studies and initiatives within the unit.

CLINICAL SKILLS, KNOWLEDGE, INTEGRATION, AND CRITICAL THINKING (CONTINUED)

Competency Statement

17. The neonatal nurse evaluates outcomes aligned with a conceptual model for neonatal nursing care, consistent with independent and interdependent nursing functions.

Criteria

The neonatal nurse:

- 17.1 Leverages family strengths to optimize expected outcomes
- 17.2 Evaluates the neonate/family's response to interventions
- 17.3 Compares collected data with expected outcomes
- 17.4 Analyzes gaps between actual and expected outcomes
- 17.5 Revises the plan of care with the family and health care team members and implements alternatives
- 17.6 Continuously evaluates the plan of care
- 17.7 Participates and leads activities to advance quality improvement activities (e.g., system and/or local effectiveness, neonate/family outcomes)

Appendix A: Terminology

Neonatal nurse: Neonatal nursing is a specialty that exists to provide care for vulnerable neonates who are experiencing life-threatening health crises, within a patient/family-centred model of care. Nursing the critically ill neonate is continuous and intensive, aided by technology and in collaboration with an interprofessional care team. Neonatal nurses require advanced problem-solving abilities using specialized knowledge regarding the neonate's unique human response to critical illness. The neonatal nurse works collaboratively within the inter-professional team and is responsible for coordinating patient care, leveraging each member's unique talents and scope of practice to meet patient and family needs. Neonatal nurses are leaders in neonate and family-centred care, leveraging family strengths, partnering with them, and integrating leading-edge critical care science and technology to provide high-quality, evidence-informed care. Lifelong learning, intellectual curiosity, and the spirit of inquiry are essential characteristics of the neonatal nurse to optimize professional competencies and to optimize the advancement of nursing practice. The neonatal nurse's ability to make sound clinical nursing judgments is based on a solid foundation of knowledge and experience (Canadian Association of Neonatal nurses, 2009 & 2017).

Neonatal Care Committee: An interprofessional committee comprised of medical, nursing, and allied health professionals and family representative(s) from the neonatal intensive care unit, also including representation from other units/personnel that interact and impact the neonatal intensive care unit (such as the mother-baby unit, Labour and delivery, laboratory, etc.). The role of the Neonatal Care Committee can include but is not limited to, developing admission, transfer, and discharge criteria, developing policies and procedures, prioritizing patients, matching resources to priorities; and defining and tracking quality, safety, and performance indicators.

Critical Care Services Ontario (CCSO): CCSO is the managing body responsible for the overall program implementation of initiatives of the provincial Critical Care Strategy. Originally established as the Critical Care Secretariat in June 2005, its work is the result of an ongoing collaboration between critical care health care providers, hospital administrators, officials from the Ministry of Health and Long-Term Care, and other health system partners.

Family: The family of the neonate is identified by the family. Family takes many forms and the definition of the family must not be defined by the health care team.

Interprofessional Practice: The provision of comprehensive health service to patients by multiple health caregivers who work collaboratively to deliver quality care within and across settings (Inter-professional Care Steering Committee, 2007).

Level 2a Neonatal unit: Planned or anticipated provision of care to neonates with a gestational age greater than or equal to 34 weeks and 0 days and birth weight greater than 1800 grams. These neonates may have a mild illness that is expected to resolve quickly. This unit is also able to provide care for stable neonates who are convalescing after intensive care, such as neonates receiving nasal oxygen with oxygen saturation monitoring (acute and convalescing), neonates requiring the initiation and maintenance of peripheral intravenous therapy, and those requiring the provision of gavage feedings.

This unit is also able to provide care to neonates who are retro-transferred, including stable neonates with a corrected age of greater than 32 weeks and 0 days, and a weight greater than 1500 grams, who do not require ventilatory support or advanced treatments or investigations.

Level 2b Neonatal Unit: Planned or anticipated care of neonates with a gestational age of greater than or equal to 32 weeks and 0 days and birth weight greater than 1500 grams. This unit provides care to moderately ill neonates with problems that are expected to resolve quickly or who are convalescing after intensive care. This unit can provide the following interventions: Continuous Positive Airway Pressure (CPAP), for up to 48 hours of age; ability to provide mechanical ventilation for resuscitation and stabilization until a transport team arrives (less than 4 hours); insertion and maintenance of umbilical lines; maintenance of percutaneous intravenous central catheter (PICC) lines; peripheral IV infusions and total parenteral nutrition (TPN).

This unit provides care to neonates who are retro-transferred with a corrected age of over 30 weeks and 0 days, and over 1200 grams and who do not require any form of invasive or non-invasive ventilation, or advanced treatment(s) or investigations.

Level 2c Neonatal Unit: Planned or anticipated care of neonates with a gestational age greater than or equal to 30 weeks 0 days and birth weight of greater than 1200 grams.

This unit provides care to moderately ill neonates with problems that are expected to resolve within a week or who are convalescing after intensive care. This unit can provide the following interventions: invasive ventilation either as a temporary measure until a transport team arrives or for up to 48 hours in consultation with a tertiary centre. Able to provide non-invasive ventilatory support for up to 14 days of age, intravenous infusion, total parenteral nutrition (TPN), the ability to insert and maintain umbilical central lines, maintenance of percutaneous intravenous central lines, access to PICC line insertion, support of neonates with extended mechanical ventilation and lower gestational age may be required as a result of temporary inability to transport (e.g., geography, weather, capacity).

This unit provides care to neonates who are retro-transferred with a corrected age of over 28 weeks and 0 days, and over 1000 grams, who may be stable on CPAP for a minimum of 48 hours and not require non-invasive or invasive ventilatory support.

Level 3a Neonatal unit: Capable of providing the highest level of service to meet the needs of neonates of any gestational age or weight. Neonates who require advanced or prolonged respiratory support including high-frequency ventilation, inhaled nitric oxide, for as long as required. This is generally considered a “full service” neonatal unit despite the fact that some specialized services may not be available (e.g., dialysis). All Level 3 units are capable of invasive ventilator support for as long as required. For institutions that combine Level 2 and Level 3 critical care services in one geographic area (i.e., unit), the unit designation reflects the highest level of care provided, even if all patients may not be receiving that level of care (Inventory of Critical Care Services, 2006).

Level 3b Neonatal Unit: same criteria as Level 3a but includes on-site surgical capabilities.

Patient and Family Centred Care: An approach to the planning, delivery, and evaluation of health care that is grounded in mutually beneficial partnerships among patients, families, and health care providers. It is founded on the understanding that the family plays a vital role in ensuring the health and well-being of patients of all ages. In-patient and family centred care, patients and families define their ‘family’ and determine how they will participate in care and decision-making (Institute for Family-Centred Care, 2004).

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