

Exam Blueprint and Specialty Competencies

Introduction – Blueprint for the Emergency Nursing Certification Exam

The primary function of the blueprint for the CNA Emergency Nursing Certification Exam is to describe how the exam is to be developed. Specifically, this blueprint provides explicit instructions and guidelines on how the competencies are to be expressed within the exam in order for accurate decisions to be made on the candidates' competence in emergency nursing.

The blueprint has two major components: (1) the content area to be measured and (2) the explicit guidelines on how this content is to be measured. The content area consists of the list of competencies (i.e., the competencies expected of fully competent practising emergency nurses with at least two years of experience), and the guidelines are expressed as structural and contextual variables. The blueprint also includes a summary chart that summarizes the exam guidelines.

Description of Domain

The CNA Emergency Nursing Exam is a criterion-referenced exam.¹ A fundamental component of a criterion-referenced approach to testing is the comprehensive description of the content area being measured. In the case of the Emergency Nursing Certification Exam, the content consists of the competencies of a fully competent practising emergency nurse with at least two years of experience.

This section describes the competencies, how they have been grouped and how they are to be sampled for creating an exam.

Developing the List of Competencies

A working group of seven highly experienced emergency nurses from various regions in Canada revised and updated the current list of competencies during a five-day meeting. The final list of competencies was approved by the Emergency Nursing Certification Exam Committee.

¹ Criterion-referenced exam: An exam that measures a candidate's command of a specified content or skills domain or list of instructional objectives. Scores are interpreted in comparison to a predetermined performance standard or as a mastery of defined domain (e.g., percentage correct and mastery scores), independently of the results obtained by other candidates (Brown, 1983).

Assumptions

In developing the list of competencies for emergency nurses, the following assumptions were made:

The Emergency Nurse

- The emergency nurse is a skilled health professional who maintains competence through continuing education, professional development, quality assurance activities and reflective practice.
- The emergency nurse respects the client's right to self-referral and his/her perception of the health problem.
- The emergency nurse provides nursing care that demonstrates compliance with the Canadian Nurses Association's Code of Ethics.
- The emergency nurse practises in a manner that is consistent with his/her respective regulatory body.
- The emergency nurse practises in a manner that is consistent with current legislation that influences emergency care and the practice of nursing.
- The emergency nurse develops a therapeutic relationship with the client and significant others within a limited time frame.
- The emergency nurse advocates for the client and significant others.
- The emergency nurse facilitates the client's and significant others' ability to identify and cope with stressors related to illness and injury.
- The emergency nurse assists the client and significant others to utilize measures to decrease the stressors that have a negative impact on the recovery of the client.
- The emergency nurse facilitates safe and efficient client referral.
- The emergency nurse facilitates safe and efficient intra- and inter-facility transfers.
- The emergency nursing assessment is continuous, comprehensive and holistic using all available and appropriate resources.
- The emergency nurse documents assessment data, plan of care, client responses and outcomes within a time frame consistent with the client's condition.
- The emergency nurse provides compassionate, non-judgmental and ethical care in situations that may be challenging for staff and clients alike.

- The emergency nurse articulates and demonstrates the crucial role of the emergency nurse to other health-care professionals, the public and the media.
- The emergency nurse utilizes effective communication techniques (e.g., interpreters, crisis intervention, appropriate non-verbal behaviours).
- The emergency nurse functions safely and effectively in an unpredictable environment.
- The emergency nurse prioritizes client care in the context of the emergency environment.
- The emergency nurse participates in health and wellness promotion and injury prevention activities.
- The emergency nurse provides discharge planning information.
- The emergency nurse provides evidence-based practice and is responsible for promoting research within the specialty.
- The emergency nurse utilizes current technology as it relates to the practice of emergency nursing.
- The emergency nurse participates in continuous quality improvement activities within the workplace.

The Client

- The client may be an individual, a family, a community or a group.
- The client varies in age, gender, culture, socio-economic background and sexual orientation.
- The client may be experiencing an unplanned and unexpected health situation that varies in severity and complexity.
- The client has a right to be cared for by a nursing professional and treated in order to achieve optimal functioning.
- The client may present a risk of injury/harm to self, staff and others (e.g., violence, infectious disease, left without being seen, left against medical advice, client elopement).

The Environment

- The environment is primarily a hospital setting.
- The environment is one in which the normal day/night cycle is irrelevant; the variety of client conditions can remain constant throughout the 24-hour period.

- The environment is unique in terms of fluctuating volume of clients, the variety of health problems and dynamic nature of client acuity, and the unscheduled and unpredictable manner in which clients arrive.
- The environment allows for varied intensity and duration of professional nursing contact with clients and others.
- The environment is influenced by challenges of client flow, length of stay and access to inpatient care.
- The environment is one in which limited space and a lack of control over the number of clients and client acuity level can stress available resources.

Competency Categories

The competencies are classified under a twenty-category scheme commonly used to organize emergency nursing.

Some of the competencies lend themselves to one or more of the categories; therefore, these twenty categories should be viewed simply as an organizing framework. Also, it should be recognized that the competency statements vary in scope, with some representing global behaviours and others more discrete and specific nursing behaviours.

Percentage of Competencies in Each Group

The following table presents the number and the percentage of competencies in each category.

Table 1: Percentage of Competencies in Each Group

Category	Number of competencies	Percentage of the total number of competencies
1. Triage	10	5-9%
2. Respiratory	14	7-11%
3. Cardiovascular	17	7-11%
4. Neurological	15	6-10%
5. Multi-system Trauma	8	5-9%
6. Maxillofacial, Eye, Ear, Nose and Throat	12	3-7%
7. Gastrointestinal	15	5-9%
8. Genitourinary	10	4-8%
9. Obstetrical client and Female Reproductive System	12	2-6%

Category	Number of competencies	Percentage of the total number of competencies
10. Musculoskeletal/Integumentary	11	5-9%
11. Environmental Emergencies	9	2-6%
12. Immunology/Haematology/Endocrinology	11	5-9%
13. Relationship violence/Sexual assault	8	2-6%
14. Toxicology	7	2-6%
15. Mental Health	8	3-7%
16. Infectious Disease	8	3-7%
17. Psychosocial	2	1-3%
18. Discharge Planning/Client Education	2	1-3%
19. Professional practice, Legal and Ethical Issues	2	1-3%
20. Disaster/Emergency Preparedness	5	1-3%

Competency Sampling

Using the grouping and the guideline that the Emergency Nursing Certification Exam will consist of approximately 165 questions, the categories have been given the following weights in the total examination.

Table 2: Competency Sampling

Categories	Approximate weights in the total examination
1. Triage	5-9%
2. Respiratory	7-11%
3. Cardiovascular	7-11%
4. Neurological	6-10%
5. Multi-system Trauma	5-9%
6. Maxillofacial, Eye, Ear, Nose and Throat	3-7%
7. Gastrointestinal	5-9%
8. Genitourinary	4-8%
9. Obstetrical client and Female Reproductive System	2-6%
10. Musculoskeletal/Integumentary	5-9%
11. Environmental Emergencies	2-6%
12. Immunology/Haematology/Endocrinology	5-9%
13. Relationship violence/Sexual assault	2-6%
14. Toxicology	2-6%
15. Mental Health	3-7%

Categories	Approximate weights in the total examination
16. Infectious Disease	3-7%
17. Psychosocial	1-3%
18. Discharge Planning/Client Education	1-3%
19. Professional practice, Legal and Ethical Issues	1-3%
20. Disaster/Emergency Preparedness	1-3%

Technical Specifications

In addition to the specifications related to the competencies, other variables are considered during the development of the Emergency Nursing Certification Exam. This section presents the guidelines for two types of variables: structural and contextual.

Structural Variables: Structural variables include those characteristics that determine the general appearance and design of the exam. They define the length of the exam, the format and presentation of the exam questions (e.g., multiple-choice format) and special functions of exam questions (e.g., case-based or independent questions).

Contextual Variables: Contextual variables specify the nursing contexts in which the exam questions will be set (e.g., client culture, client health situation and health-care environment).

Structural Variables

Exam Length: The exam consists of approximately 165 multiple-choice questions.

Question Presentation: The multiple-choice questions are presented in one of two formats: case-based or independent. Case-based questions are a set of approximately four questions associated with a brief health-care scenario (i.e., a description of the client's health-care situation). Independent questions stand alone. In the Emergency Nursing Certification Exam, 65 to 75 per cent of the questions are presented as independent questions and 25 to 35 per cent are presented within cases.

Taxonomy for Questions: To ensure that competencies are measured at different levels of cognitive ability, each question on the Emergency Nursing Certification Exam

is aimed at one of three levels: knowledge/comprehension, application and critical thinking.²

1. Knowledge/Comprehension

This level combines the ability to recall previously learned material and to understand its meaning. It includes such mental abilities as knowing and understanding definitions, facts and principles and interpreting data (e.g., knowing the effects of certain drugs or interpreting data appearing on a client's record).

2. Application

This level refers to the ability to apply knowledge and learning to new or practical situation. It includes applying rules, methods, principles and theories in providing care to clients (e.g., applying nursing principles to the care of clients).

3. Critical Thinking

The third level of the taxonomy deals with higher-level thinking processes. It includes the abilities to judge the relevance of data, to deal with abstraction and to solve problems (e.g., identifying priorities of care or evaluating the effectiveness of interventions). The emergency nurse with at least two years of experience should be able to identify cause-and-effect relationships, distinguish between relevant and irrelevant data, formulate valid conclusions and make judgments concerning the needs of clients.

The following table presents the distribution of questions for each level of cognitive ability.

Table 3: Distribution of Questions for Each Level of Cognitive Ability

Cognitive Ability Level	Percentage of questions on Emergency Nursing Exam
Knowledge/Comprehension	15-25%
Application	35-50%
Critical Thinking	25-35%

² These levels are adapted from the taxonomy of cognitive abilities developed in Bloom (1956).

Contextual Variables

Client Age and Gender: Two of the contextual variables specified for the Emergency Nursing Certification Exam are age and gender of the clients. Providing specifications for the use of these variables ensures that the clients described in the exam represent the demographics characteristics of the population encountered by emergency nurses. These characteristics, listed in Table 4 as percentage ranges, serve as guidelines for test development.

Table 4: Specification for Client Age and Gender

Age Group	Percentage of questions on the Emergency Nursing Exam	
	Male	Female
0 to 18 years	12-18%	12-18%
19 to 64 years	14-20%	15-21%
65+ years	12-18%	17-23%

Client Culture: Questions are included that measure awareness, sensitivity and respect for different cultural values, beliefs and practices, without introducing stereotypes.

Client Health Situation: In the development of the Emergency Nursing Exam, the client is viewed holistically. The client health situations presented reflect a cross-section of health situations encountered by emergency nurses.

Health-Care Environment: It is recognized that emergency nursing is practiced primarily in the hospital setting. However, emergency nursing can also be practiced in other settings. Therefore, for the purposes of the Emergency Nursing Certification Examination, the health-care environment is only specified where it is required for clarity or in order to provide guidance to the examinee.

Conclusions

The blueprint for the Emergency Nursing Certification Exam is the product of a collaborative effort between CNA, ASI and a number of emergency nurses across Canada. Their work has resulted in a compilation of the competencies required of practising emergency nurses and has helped determine how those competencies will be measured on the Emergency Nursing Certification Exam. A summary of these guidelines can be found in the summary chart Emergency Nursing Certification Development Guidelines.

Emergency nursing practice will continue to evolve. As this occurs, the blueprint may require revision so that it accurately reflects current practices. CNA will ensure that such revision takes place in a timely manner and will communicate any changes in updated editions of this document.

Summary Chart

Emergency Nursing Exam Development Guidelines

STRUCTURAL VARIABLES		
Examination Length and Format	Approximately 165 multiple choice questions	
Question Presentation	65-75 % independent questions 25-35 % case-based questions	
The Cognitive Domain	Knowledge/Comprehension	15-25 % of the questions
	Application	35-50 % of the questions
	Critical Thinking	25-35 % of the questions
Competency Categories (186 competencies)	Weight of Category in the Overall Exam	
1. Triage (10 competencies)	5-9% of the questions	
2. Respiratory (14 competencies)	7-11% of the questions	
3. Cardiovascular (17 competencies)	7-11% of the questions	
4. Neurological (15 competencies)	6-10% of the questions	
5. Multi-system Trauma (8 competencies)	5-9 % of the questions	
6. Maxillofacial, Eye, Ear, Nose and Throat (EENT) (12 competencies)	3-7% of the questions	
7. Gastrointestinal (15 competencies)	5-9% of the questions	
8. Genitourinary (10 competencies)	4-8% of the questions	
9. Obstetrical client and Female Reproductive System (12 competencies)	2-6% of the questions	
10. Musculoskeletal/Integumentary (11 competencies)	5-9% of the questions	
11. Environmental Emergencies (9 competencies)	2-6% of the questions	
12. Immunology / Haematology/Endocrinology (11 competencies)	5-9% of the questions	
13. Relationship violence/Sexual assault (8 competencies)	2-6% of the questions	
14. Toxicology (7 competencies)	2-6% of the questions	
15. Mental Health (8 competencies)	3-7% of the questions	
16. Infectious Disease (8 competencies)	3-7% of the questions	
17. Psychosocial (2 competencies)	1-3% of the questions	
18. Discharge Planning/Client Education (2 competencies)	1-3% of the questions	
19. Professional Practice Issues Legal and Ethical Issues (2 competencies)	1-3% of the questions	
20. Disaster/Emergency Preparedness (5 competencies)	1-3% of the questions	

CONTEXTUAL VARIABLES			
Client Age and Gender		Male	Female
	0 to 18 years	12-18 %	12-18 %
	19 to 64 years	14-20 %	15-21 %
	65+ years	12-18 %	17-23 %
Client Culture	Questions are included that measure awareness, sensitivity, and respect for different cultural values, beliefs, and practices, without introducing stereotypes.		
Client Health Situation	In the development of the Emergency Nursing Certification Examination, the client is viewed holistically. The client health situations presented also reflect a cross section of health situations encountered by emergency nurses.		
Health-Care Environment	It is recognized that emergency nursing is practiced primarily in the hospital setting. However, emergency nursing can also be practiced in other settings. Therefore, for the purposes of the Emergency Nursing Certification Examination, the health-care environment is only specified where it is required for clarity or in order to provide guidance to the examinee.		

The Emergency Nursing Exam List of Competencies

1. Triage (10 competencies)

The emergency nurse...

- 1.1 Interprets data related to triage:
 - 1.1a Subjective assessment
 - Presenting complaint
 - History (e.g., history of presenting illness or mechanism of injury [moi], past medical history, allergies, immunization, current medications, recent travel, parents' perceptions, events surrounding the injury or illness, prior treatment, diet/diapers, last oral intake, last menses)
 - Pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], age- and language-appropriate scale)
 - 1.1b Objective assessment
 - Airway, breathing, circulation, disability, exposure/environment (ABCDE)
 - General physical appearance (e.g., skin colour, fontanels, diaphoresis, work of breathing, drainage, discharge, odours)
 - Verbal and non-verbal cues (e.g., distress)
 - Other physical assessments related to presenting illness or injury (e.g., first order modifiers [e.g., vital signs], second order modifiers [e.g., capillary blood glucose], inspection, palpation, auscultation, weight, Broselow tape)
- 1.2 Prioritizes and reassesses clients based on the principles of the Canadian Emergency Department Triage and Acuity Scale (2008):
 - 1.2a Level 1, Resuscitation
 - 1.2b Level 2, Emergent
 - 1.2c Level 3, Urgent
 - 1.2d Level 4, Less Urgent
 - 1.2e Level 5, Non-Urgent
- 1.3 Initiates risk screening (e.g., febrile respiratory illness [FRI], communicable diseases, sepsis, sexual assault, relationship violence, bullying, suicidal ideation)
- 1.4 Recognizes, attempts to prevent and manages aggressive behaviour
- 1.5 Initiates isolation/decontamination procedures

2. Respiratory (13 competencies)

The emergency nurse...

- 2.1 Interprets the following data related to the respiratory system:
 - 2.1a Subjective assessment
 - Presenting complaint
 - History (e.g., onset, risk factors, past medical history)
 - Manifestations (e.g., shortness of breath, cough, fatigue, dyspnea)
 - Pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], age- and language-appropriate scale)
 - 2.1b Objective assessment
 - Degree of distress (i.e., mild, moderate or severe)
 - Inspection (e.g., airway patency, respiratory rate, depth, rhythm, tracheal position, chest wall symmetry, work of breathing/accessory muscle use, skin colour, capillary refill, non-verbal cues related to pain, diaphoresis, singed facial/nasal hair)
 - Palpation (e.g., subcutaneous emphysema, tenderness, crepitus, deformities, chest wall integrity, skin temperature)
 - Percussion
 - Auscultation (e.g., heart sounds, breath sounds)
 - Other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry, weight, Broselow tape)
 - 2.1c Diagnostic results (e.g., blood gases, peak flow measurements, ECG, cultures, hematology, chemistry, end tidal CO₂, D-dimers, diagnostic imaging)
- 2.2 Selects nursing interventions to appropriately manage the following alterations in respiratory function:
 - 2.2a partial or complete airway obstruction (e.g., tongue, epiglottitis, foreign bodies, angioedema, mucous plugs, croup)
 - 2.2b blunt and penetrating chest trauma (e.g., rib fractures, flail chest, pulmonary contusion, pneumothorax, tension pneumothorax, hemothorax, protruding foreign body, open chest wound)
 - 2.2c pulmonary embolism
 - 2.2d inhalation injuries (e.g., gases, chemical, smoke, thermal)
 - 2.2e asthma, status asthmaticus
 - 2.2f chronic obstructive pulmonary disease (COPD)
 - 2.2g pneumonia
 - 2.2h bronchiolitis, acute bronchitis, respiratory syncytial virus (RSV)
 - 2.2i pulmonary edema
 - 2.2j respiratory arrest

Examples:

The following are examples of potential nursing interventions to appropriately manage alterations in respiratory function.

- Monitor and reassess ABCDE and vital signs
- Administration of oxygen therapy
- Positioning (e.g., high-Fowler's)
- Perform airway techniques (e.g., chin lift, jaw thrust, use of oral and nasal airways, suctioning, bag-valve-mask)
- Assist with endotracheal intubation (e.g., rapid sequence induction)
- Assist with alternate ventilation management (e.g., bag-valve-mask ventilation, CPAP, mechanical ventilation)
- Assist with surgical airway management (e.g., cricothyrotomy)
- Assist with endotracheal/tracheostomy tubes (e.g., suctioning)
- Monitor fluid balance (i.e., input and output)
- Assist with insertion of chest tube and monitor of chest drainage system

- 2.3 Selects nursing interventions related to pharmacological agents in the respiratory system (e.g., oxygen, bronchodilators, steroids, thrombolytic agents, analgesics, reversal agents, sedatives, neuromuscular blocking agents)

3. Cardiovascular (17 competencies)

The emergency nurse...

- 3.1 Interprets the following data related to the cardiovascular system:

3.1a Subjective assessment

- Presenting complaint
- History (e.g., onset, risk factors, past medical history)
- Manifestations (i.e., associated symptoms including nausea, shortness of breath, diaphoresis, syncope, cough, fatigue, fever)
- Pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], age- and language-appropriate scale)

3.1b Objective assessment

- Degree of distress (i.e., mild, moderate, severe)
- Inspection (e.g., skin colour, diaphoresis, capillary refill, jugular venous distension, pulsating masses, non-verbal cues related to pain and anxiety, level of consciousness)
- Palpation (e.g., quality of peripheral/central pulses, skin temperature)
- Auscultation (e.g., heart sounds, breath sounds)
- Other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry, bilateral and/or postural blood pressure, weight, Broselow tape, fontanels)

- 3.1c Diagnostic results (e.g., cardiac markers, hematology, coagulation studies, chemistry, toxicology, lactate, ECG, cultures, cardiac monitoring, blood type and screen, diagnostic imaging)

- 3.2 Selects nursing interventions to appropriately manage the following alterations in cardiovascular function:
- 3.2a acute coronary syndrome (e.g., angina, ischemia, infarction)
 - 3.2b cardiac dysrhythmias
 - 3.2c cardiac contusion, cardiac tamponade
 - 3.2d cardiogenic shock
 - 3.2e hypovolemic shock
 - 3.2f obstructive shock
 - 3.2g distributive shock (e.g., anaphylactic, septic, neurogenic)
 - 3.2h congestive heart failure (left ventricular failure/right ventricular failure)
 - 3.2i hypertensive crisis
 - 3.2j aortic aneurysm (e.g., abdominal and thoracic)
 - 3.2k pericarditis, myocarditis and endocarditis
 - 3.2l cardiomyopathy
 - 3.2m cardiac arrest

Examples

The following are examples of potential nursing interventions to appropriately manage alterations in cardiovascular function.

- Monitor and reassess vital signs, perfusion, neurological status, neurovascular status and cardiac rhythms
- Initiate early sepsis screening and interventions (e.g., antibiotics, fluids, diagnostics)
- Initiate IV access as appropriate
- Initiate and maintain fluid resuscitation (e.g., colloids, crystalloids, blood products)
- Monitor fluid balance (i.e., input and output)
- Assist with/perform CPR, defibrillation, cardioversion, temporary external pacing, pericardiocentesis and central line insertion

- 3.3 Selects nursing interventions related to pharmacological agents in the cardiovascular system (e.g., antiplatelet agents, oxygen, analgesia, nitrates, anticoagulants, thrombolytic/fibrinolytic agents, inotropes, antihypertensives, antiarrhythmic agents)

4. Neurological (15 competencies)

The emergency nurse...

- 4.1 Interprets the following data related to the neurological system:
- 4.1a Subjective assessment
- Presenting complaint
 - History (e.g., onset, risk factors, past medical history, events and recent trauma)
 - Manifestations (e.g., headache, fatigue, altered level of consciousness, memory loss, syncope, vertigo, motor and sensory deficits, nausea and/or vomiting, seizures, cognition, orientation, changes in speech pattern)
 - Pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], age- and language-appropriate scale)
- 4.1b Objective assessment
- behaviour (i.e., chronic or acute change) (e.g., cooperative, combative, agitated, confused)
 - inspection (e.g., speech and language assessment, battle sign, raccoon eyes, posturing, pupils, extraocular movements, rhinorrhea, otorrhea, gait, skull symmetry)
 - palpation (e.g., skin temperature, spinal column tenderness)
 - auscultation (e.g., heart sounds, breath sounds)
 - other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry, Glasgow Coma Scale, limb movement and sensation, neurovascular status, weight, Broselow tape, fontanel)
- 4.1c Diagnostic results (e.g., cerebral spinal fluid, hematology, chemistry, coagulation studies, blood glucose, ECG, cultures, toxicology, diagnostic imaging)
- 4.2 Selects nursing interventions to appropriately manage the following alterations in neurological function:
- 4.2a seizure activity, status epilepticus, febrile seizures
- 4.2b meningitis/encephalitis
- 4.2c transient ischemic attack (TIA)/acute ischemic/hemorrhagic stroke
- 4.2d spinal cord/vertebral injury or anomalies
- 4.2e spinal shock/neurogenic shock
- 4.2f increased intracranial pressure (e.g., space occupying lesions, epidural, subdural, subarachnoid hemorrhage, cerebral edema, hydrocephalus)
- 4.2g head injury (e.g., blunt and penetrating injury, contusion, concussion, diffuse axonal injury, shaken baby syndrome)
- 4.2h headaches (e.g., migraine, tension, sinus)
- 4.2i organic brain syndrome (e.g., dementia, Alzheimer's disease)
- 4.2j acute confusional state (e.g., delirium)

4.2k progressive neurological disorders (e.g., ALS, Guillain-Barré syndrome)

Examples

The following are examples of potential nursing interventions to appropriately manage alterations in neurological function.

- Maintain adequate cerebral perfusion (e.g., head midline, elevate head of the bed, adequate oxygenation, prevent hypercarbia/hypocarbia, maintain adequate blood pressure)
- Initiate isolation precautions as indicated
- Monitor fluid balance (i.e., input and output)
- Monitor and reassess neurological status, neurovascular status and vital signs

4.3 Selects nursing interventions related to pharmacological agents in the neurological system (e.g., oxygen, anticonvulsants, diuretics, barbiturates, thrombolytics/fibrinolytics, analgesics, sedatives, neuromuscular blocking agents, reversal agents)

5. Multi-System Trauma (8 competencies)

The emergency nurse...

5.1 Interprets the following data related to multi-system trauma:

5.1a Subjective assessment

- Presenting complaint
- History (e.g., pre-hospital care, pre-hospital information, client-generated information, precipitating events, past medical history)
- Mechanism of injury (e.g., mechanical energy, thermal energy, chemical energy, electrical energy, radiant energy, oxygen deprivation)
- Manifestations (e.g., life and/or limb threatening injuries, blood loss, loss of consciousness, paresthesia)
- Pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], age- and language-appropriate scale)

5.1b Objective assessment

- primary survey (i.e., airway with c-spine precautions, breathing, circulation, disability, and expose/environmental controls [ABCDE])
- secondary survey (i.e., full set of vital signs, focused adjuncts, family presence, comfort measures, history, head-to-toe assessment, inspect posterior surfaces [FGHI])
- other physical assessments related to presenting illness or injury (e.g., weight, Broselow tape, burn percentage and degree)

5.1c Diagnostic results appropriate to involved systems (e.g., blood type and screen, crossmatch, blood gases, hematology, chemistry, urinalysis, coagulation studies, toxicology, carboxyhemoglobin, myoglobin, diagnostic imaging)

5.2 Selects nursing interventions to appropriately manage multi-system trauma resulting from the following mechanisms of injury:

5.2a Burn trauma (i.e., thermal, chemical, radiant, electrical)

- 5.2b Blast injuries (e.g., explosions)
- 5.2c Blunt trauma (e.g., vehicular impact, falls, assaults)
- 5.2d Penetrating trauma (e.g., knife, gunshot, impaled)

Examples

The following are examples of potential nursing interventions to appropriately manage alterations in multi-system trauma.

Airway/Breathing

- Initiate and maintain oxygenation, ventilation
- Initiate and/or maintain appropriate spinal immobilizations (e.g., size-appropriate: c-collar, backboard, head block, papoose, tape)
- Perform airway techniques (e.g., jaw thrust, oral and nasal airways, suctioning, bag-valve-mask)
- Assist with endotracheal intubation with rapid sequence induction (RSI)

Circulation

- Initiate vascular access
- Assist with insertion of intraosseous (IO)/central lines
- Initiate and maintain fluid resuscitation (e.g., colloids, crystalloids, blood products)
- Monitor and reassess vital signs
- Monitor fluid balance (i.e., input and output)
- Obtain blood type, screen and crossmatch
- Control external bleeding

Disability

- Monitor and reassess neurological status (e.g., level of consciousness, Glasgow Coma Scale, pupil reaction)

Expose/Environmental controls

- Remove clothing
- Maintain normothermic environment/prevent iatrogenic hypothermia (e.g., warm fluid/blankets/environment/lights)

- 5.3 Selects nursing interventions related to pharmacological agents utilized in multi-system trauma (e.g., oxygen, anesthetics, analgesics, sedatives, paralytics, inotropes, antibiotics, immunizations)

6. Maxillofacial, Eye, Ear, Nose and Throat (EENT) (12 competencies)

The emergency nurse...

- 6.1 Interprets the following data related to the maxillofacial, EENT:
 - 6.1a Subjective assessment
 - Presenting complaint
 - History (e.g., onset and risk factors, past medical history)
 - Manifestations (e.g., sensory changes, motor changes, tinnitus, dysphagia, changes in phonation, swelling, bleeding/drainage)
 - Pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], age- and language-appropriate scale)
 - 6.1b Objective assessment
 - Degree of distress (i.e., mild, moderate or severe)
 - Inspection (e.g., skin colour, symmetry, skin integrity, motor movement, malocclusion, trismus, bleeding/drainage, foreign bodies, visual acuity)
 - Palpation (e.g., crepitus, deformities)
 - Percussion (e.g., sinuses)
 - Other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry, weight, Broselow tape)
 - 6.1c Diagnostic results (e.g., hematology, chemistry, coagulation studies, diagnostic imaging)
- 6.2 Selects nursing interventions associated with the following alterations in maxillofacial, EENT function:
 - 6.2a Foreign body
 - 6.2b Chemical exposure (e.g., ocular, oral pharyngeal)
 - 6.2c Ocular injuries/disease (e.g., corneal abrasion, conjunctivitis, iritis, retinal detachment, ocular injury, hyphema, subconjunctival hemorrhage, acute glaucoma)
 - 6.2d Ear injuries/disease (e.g., Ménière's disease, otitis externa/media, mastoiditis, ruptured tympanic membrane)
 - 6.2e Epistaxis (i.e., anterior or posterior)
 - 6.2f Oropharyngeal injuries, abscesses or inflammation (e.g., epiglottitis, angioedema, peritonsillar abscesses, retropharyngeal abscesses, stomatitis, pharyngitis, tonsillitis, post-tonsillectomy bleed, pharyngeal trauma)
 - 6.2g Fractures (e.g., LeFort I, II, III, orbital, nasal, oral)
 - 6.2h Maxillofacial injuries/disease (e.g., dislocation/temporomandibular joint syndrome, trigeminal neuralgia, Bell's palsy, dental avulsion)

Examples

The following are examples of potential nursing interventions to appropriately manage alterations in the maxillofacial, EENT client.

- Position the client as appropriate for disease or injury (e.g., semi/high-Fowler's)
- Perform airway techniques (e.g., oral and nasal airways, suctioning)
- Irrigate the eye (e.g., Morgan lens)
- Assist with nasal packing and insertion of balloon catheters or tampons
- Assist with foreign body removal
- Assist with incision and drainage of abscesses (e.g., peritonsillar abscesses)
- Assist with re-implantation of teeth/care of displaced, broken or loose teeth
- Monitor and reassess airway status and vital signs including pulse oximetry

- 6.3 Selects nursing interventions related to pharmacological agents utilized in maxillofacial and EENT conditions (e.g., oxygen, topical anesthetics, antibiotics, analgesics, antipyretics, immunizations)

7. Gastrointestinal (15 competencies)

The emergency nurse...

- 7.1 Interprets the following data related to the gastrointestinal system:
- 7.1a Subjective assessment
- Presenting complaint
 - History (e.g., onset, risk factors, past medical history, recent travel)
 - Manifestations (e.g., nausea, vomiting, diarrhea, constipation, bleeding, melena, coffee-ground emesis)
 - Pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], age- and language-appropriate scale)
- 7.1b Objective assessment
- Degree of distress (e.g., mild, moderate, severe)
 - Inspection (e.g., skin colour, diaphoresis, posturing, splinting abdomen, mucous membranes, production of tears)
 - Auscultation (e.g., bowel sounds, aortic bruits)
 - Percussion
 - Palpation (e.g., masses, guarding, skin turgor, pain, rebound tenderness)
 - other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry, weight, Broselow tape, fontanel)
- 7.1c Diagnostic results (e.g., hematology, chemistry, toxicology, coagulation studies, blood type and screen, crossmatch, ECG, pregnancy test, urinalysis, osmolality, cultures, occult blood, liver function tests, diagnostic imaging)

- 7.2 Selects nursing interventions associated with the following alterations in the gastrointestinal system:
- 7.2a hernia/ischemic/infarcted bowel or obstructed bowel (e.g., partial or complete, paralytic ileus)
 - 7.2b peritonitis/non-traumatic perforation
 - 7.2c GI bleed (e.g., esophageal varices, ulcer, upper/lower bleed)
 - 7.2d pancreatitis, hepatic encephalopathy
 - 7.2e foreign bodies
 - 7.2f cholecystitis/cholelithiasis
 - 7.2g appendicitis
 - 7.2h pyloric stenosis, intussusception
 - 7.2i ulcerative colitis/Crohn's disease/gastroenteritis/diverticulitis/gastritis/ esophagitis
 - 7.2j abdominal injury (e.g., splenic rupture, liver laceration, perforated viscous, diaphragmatic rupture)
 - 7.2k constipation/diarrhea

Example

The following are examples of potential nursing interventions to appropriately manage alterations in the gastrointestinal system.

- Monitor and reassess ABCDE and vital signs
- Prepare for procedures (e.g., paracentesis, endoscopy, diagnostic peritoneal lavage, foreign body removal, surgical intervention, bedside ultrasound)
- Insert and monitor naso/orogastric tube
- Monitor percutaneous feeding tube
- Initiate IV access and manage IV therapy (e.g., colloids, blood products, crystalloids)
- Observe fluid losses and monitor fluid balance (e.g., intake and output)
- Initiate isolation precautions as indicated

- 7.3 Selects nursing interventions related to pharmacological agents in the gastrointestinal system (e.g., oxygen, antibiotics, analgesics, sedatives, antiemetics, enemas, laxatives, H2 antagonists, contrast medications)

8. Genitourinary (10 competencies)

The emergency nurse...

- 8.1 Interprets the following data related to the genitourinary system:
- 8.1a Subjective assessment
- Presenting complaint
 - History (e.g., onset, risk factors, past medical and sexual history)
 - Manifestations (e.g., nausea, vomiting, hematuria, dysuria, discharge)
 - Pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], age- and language-appropriate scale)
- 8.1b Objective assessment
- Degree of distress (e.g., mild, moderate, severe)
 - Inspection (e.g., skin colour, hematuria, perineal swelling, diaphoresis)
 - Palpation
 - Percussion (e.g., bladder, costovertebral angle)
 - Other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry, bladder scan, weight, Broselow tape, fontanel)
- 8.1c Diagnostic results (e.g., urinalysis, hematology, chemistry, coagulation studies, urea, creatinine, cultures, diagnostic imaging)
- 8.2 Selects nursing interventions associated with the following alterations in genitourinary system:
- 8.2a infection (e.g., urinary tract infection [UTI], glomerulonephritis, pyelonephritis, prostatitis, cystitis, epididymitis, orchitis)
- 8.2b renal colic
- 8.2c renal failure (e.g., acute, chronic, dialysis dependent)
- 8.2d sexually transmitted infection (STI)
- 8.2e scrotal/penile injury/priapism/testicular torsion
- 8.2f urinary retention or obstruction, foreign bodies

Example

The following are examples of potential nursing interventions to appropriately manage alterations in genitourinary functions.

- Assist with/performing urinary catheterization (e.g., supra-pubic, urethral, continuous bladder irrigation [CBI])
- Assist with obtaining culture samples
- Monitor fluid balance (i.e., input and output)
- Strain of urine (e.g., calculi)

- 8.3 Selects nursing interventions related to pharmacological agents in the genitourinary system (e.g., diuretics, analgesics, NSAIDs, antibiotics, topical agents, antipyretics, antivirals, antiemetics)

9. Obstetrical Client and Female Reproductive System (12 competencies)

The emergency nurse...

- 9.1 Interprets the following data related to the obstetrical client and female reproductive system:
- 9.1a Subjective assessment
- Presenting complaint
 - History (e.g., onset, risk factors, last normal menstrual period, expected date of confinement [EDC], gravida/para/abortions, frequency and duration of contractions, past medical history, multiple gestation, meconium in fluid, recent drug ingestion, recent abdominal trauma, rupture of membranes, prenatal care, previous cesarean birth, STI, Streptococcus B, HIV/AIDS)
 - Manifestations (e.g., discharge, bleeding, nausea, vomiting, changes in fetal movement, headache, blurred vision)
 - Pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], age- and language-appropriate scale)
- 9.1b Objective assessment
- Degree of distress (e.g., mild, moderate, severe)
 - Inspection (e.g., skin colour, diaphoresis, splinting of abdomen, vaginal bleeding, vaginal discharge)
 - Palpation (e.g., fundal height, fetal movement, contractions, breasts)
 - Auscultation (e.g., fetal heart rate, maternal blood pressure)
 - Other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry, weight, APGAR score)
- 9.1c Diagnostic results (e.g., pregnancy test, urine protein and glucose, Rh factor, blood type and screen, hematology, chemistry, coagulation studies, STI cultures, toxicology, liver function test, diagnostic imaging)
- 9.2 Selects nursing interventions associated with the following alterations in obstetrical clients and female reproductive system:
- 9.2a ovarian cyst, mittelschmerz, ectopic pregnancy
- 9.2b abortion (i.e., spontaneous, threatened, therapeutic, septic, missed)
- 9.2c pregnancy-induced hypertension, eclampsia, hemolysis, elevated liver enzymes and low platelets (HELLP syndrome), hyperemesis gravidarum
- 9.2d abruption placentae, placenta previa (e.g., amniotic fluid embolism, DIC), ruptured uterus
- 9.2e foreign bodies, perineal trauma
- 9.2f infection (e.g., mastitis, perineum, STI, pelvic inflammatory disease, toxic shock syndrome)
- 9.2g postpartum hemorrhage (e.g., retained products, episiotomy)
- 9.2h emergency child birth (e.g., unexpected delivery, precipitous delivery, cord prolapse, meconium-stained amniotic fluid, breech birth)

Examples

The following are examples of potential nursing interventions to appropriately manage alterations in the obstetrical client and female reproductive system.

- Monitor and reassess ABCDE and vital signs of mother and neonate
- Position client (left lateral decubitus)
- Monitor and reassess for signs of fetal distress (e.g., fetal heart rate, fetal activity, meconium)
- Assist with child birth and delivery of placenta
- Obtain blood type, screen and crossmatch
- Initiate IV access and manage IV therapy (e.g., colloids, blood products, crystalloids)
- Observe fluid losses and monitor fluid balance (i.e., intake and output)
- Assist with care of the neonate and mother
- Prepare for timely surgical intervention, transfer or referral
- Prepare for speculum examination

- 9.3 Selects nursing intervention related to pharmacological agents in the obstetrical client and female reproductive system (e.g., magnesium sulfate, anticonvulsants, methotrexate, oxytocin, analgesics, antibiotics, antiemetics, RhoGAM)

10. Musculoskeletal/Integumentary (11 competencies)

The emergency nurse...

- 10.1 Interprets the following data related to the musculoskeletal/integumentary system:
- 10.1a Subjective assessment
- Presenting complaint
 - History (e.g., onset, risk factors, mechanism of injury, past medical history)
 - Manifestations (e.g., sensation, movement, skin temperature, swelling)
 - Pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], age- and language-appropriate scale)
- 10.1b Objective assessment
- Degree of distress (i.e., mild, moderate, severe)
 - Inspection (e.g., skin colour, symmetry, skin integrity, rash, burns, bruising, contusion, deformity, neurovascular assessment, range of motion, inability to use limb/weight bear, blisters)
 - Palpation (e.g., temperature, pallor, pulses, paralysis, paresthesia)
 - Other physical assessments (e.g., vital signs, pulse oximetry, weight, Broselow tape)
- 10.1c Diagnostic results (e.g., myoglobin, uric acid, CK, hematology, chemistry, coagulation studies, sedimentation rate, C-reactive protein, diagnostic imaging)
- 10.2 Selects nursing interventions associated with the following alterations in the musculoskeletal/integumentary system:
- 10.2a compartment syndrome, neurovascular compromise
- 10.2b penetrating injury

- 10.2c soft tissue injuries (e.g., sprains and strains)
- 10.2d acute or exacerbated chronic inflammatory states (e.g., osteoarthritis, gout)
- 10.2e infectious processes (e.g., necrotizing fasciitis, cellulitis, osteomyelitis, abscesses)
- 10.2f skin disorders (e.g., psoriasis, hives, erythema, rashes, ulcerations, eczema)
- 10.2g fractures, dislocations, amputations, crush injuries and tumours

Examples

The following are examples of potential nursing interventions to appropriately manage alterations of the musculoskeletal/integumentary system.

- Assess and monitor ABCDE and vital signs
- Assess and monitor neurovascular status
- Assist with suturing, gluing, stapling
- Apply topical anesthetic
- Assist with local anesthetic
- Assist with the reduction and immobilization of fractures/dislocations
- Care of the amputated part
- Assist and monitor procedural sedation
- Initiate IV access and manage IV therapy (e.g., colloids, blood products, crystalloids)
- Observe fluid losses and monitor fluid balance (i.e., intake and output)
- Prepare for OR
- Prepare for fasciotomy
- Removal of wound debris and wound cleansing (e.g., debridement, road rash, irrigation)
- Ring removal

- 10.3 Selects nursing interventions related to pharmacological agents in the musculoskeletal/integumentary system (e.g., oxygen, antibiotics, analgesics, sedatives, local and topical anesthetic, antihistamines, steroids, NSAIDs, immunizations, antiemetics, antivirals, antifungals)

11. Environmental Emergencies (9 competencies)

The emergency nurse...

- 11.1 Interprets the following data related to environmental emergencies:

- 11.1a Subjective assessment

- Presenting complaint
- History (e.g., onset, risk factors, type/length of exposure, past medical history, exposure source/route, interventions at scene)
- Manifestations (e.g., shortness of breath, cramps, syncope, fatigue, dizziness, confusion, agitation, cough, fever)
- Pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], age- and language-appropriate scale)

- 11.1b Objective assessment
- Degree of distress (i.e., mild, moderate or severe)
 - Inspection (e.g., skin colour, capillary refill, rash, mucous membranes, skin integrity, diaphoresis, level of consciousness, work of breathing)
 - Palpation (e.g., pallor, pulses, paralysis, paresthesia, temperature, skin turgor)
 - Auscultation, (e.g., heart sounds, breath sounds)
 - Other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry, Glasgow Coma Scale, weight, Broselow tape)
- 11.1c Diagnostic results (e.g., hematology, chemistry, coagulation, creatinine, urea, toxicology, myoglobin, blood gases, urinalysis, ECG, diagnostic imaging)
- 11.2 Selects nursing interventions associated with the following to appropriately manage alterations related to environmental injuries:
- 11.2a heat syndromes (e.g., heat syncope, heat exhaustion, heat stroke)
- 11.2b cold syndromes (e.g., frostbite, hypothermia)
- 11.2c near drowning
- 11.2d high altitude illness/decompression illness
- 11.2e bites and stings from humans, animals, insects, arthropods, snakes, venomous marine animals (e.g., rabies, bee sting, jelly fish)

Examples

The following are examples of potential nursing interventions to appropriately manage alterations related to environmental injuries.

- Monitor and reassess ABCDE and vital signs
- Assist with intubation
- Remove source, flushing as required
- Initiate warming or cooling measures
- Initiate cardiac monitoring
- Initiate IV access and manage IV therapy (e.g., colloids, blood products, crystalloids)
- Observe fluid losses and monitor fluid balance (i.e., intake and output)

- 11.3 Selects nursing interventions related to pharmacological agents for environmental injuries (e.g., oxygen, antivenom kits, antipyretics, analgesics, immunizations, rabies vaccine, antibiotics, diuretics)

12. Immunology/Hematology/Endocrinology (11 competencies)

The emergency nurse...

- 12.1 Interprets the following data related to the immunologic/hematological/endocrine systems:
- 12.1a Subjective assessment
- Presenting complaint
 - History (e.g., onset, risk factors, past medical history)
 - Manifestations (e.g., diaphoretic, nausea, vomiting, fatigue, mental status changes, altered level of consciousness, swelling, weight loss/gain, shortness of breath, increased thirst, fever)
 - Pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], age- and language-appropriate scale)
- 12.1b Objective assessment
- Degree of distress (i.e., mild, moderate or severe)
 - Inspection (e.g., diaphoresis, respiratory rate, work of breathing, mucous membranes)
 - Palpation (e.g., skin turgor, capillary refill)
 - Auscultation (e.g., heart sounds, breath sounds)
 - Other physical assessments (e.g., vital signs, odour, pulse oximetry, weight, Broselow tape)
- 12.1c Diagnostic results (e.g., urine/serum ketones, blood glucose, serum calcium/magnesium/phosphate, blood gases, hematology, chemistry, coagulation studies, blood type and screen, crossmatch, thyroid studies, osmolality, diagnostic imaging)
- 12.2 Selects nursing interventions associated with the following alterations in immunologic/hematological/endocrine functions:
- 12.2a hyperglycemic emergencies (e.g., diabetic ketoacidosis [DKA], hyperglycemic hyperosmolar non-ketotic coma [HHNC])
- 12.2b hypoglycemia
- 12.2c thyroid emergencies (e.g., thyroid storm, myxedema coma)
- 12.2d adrenal gland emergencies (e.g., Addisonian crisis, Cushing's syndrome, syndrome of inappropriate antidiuretic hormone [SIADH], diabetes insipidus [DI])
- 12.2e blood dyscrasias (e.g., DIC, sickle cell crisis, hemophilia)
- 12.2f oncological emergencies (e.g., spinal cord compression syndrome, malignant effusions [pleural, pericardial, peritoneal], hypercalcemia)
- 12.2g Immunocompromised client (e.g., HIV/AIDS, febrile neutropenia, asplenia)

Examples

The following are examples of potential nursing interventions to appropriately manage alterations in immunologic/hematological/endocrine systems.

- Monitor and reassess ABCDE and vital signs
- Monitor capillary/serum glucose levels, electrolytes, blood gases, osmolality
- Identify clients with bleeding disorders requiring rapid factor replacement
- Initiate IV access and manage IV therapy (e.g., colloids, blood products, crystalloids)
- Observe fluid losses and monitor fluid balance (i.e., intake and output)
- Initiate isolation and cytotoxic precautions as indicated

- 12.3 Selects nursing interventions related to pharmacological agents for the immunologic/hematological/endocrine systems (e.g., oxygen, hypoglycemic agent, insulin, anticoagulants, analgesics, glucocorticoids, diuretics, thyroid therapy, hormones, anticoagulant reversal agents, D50W, electrolytes)

13. Relationship Violence/Sexual Assault (8 competencies)

The emergency nurse...

- 13.1 Interprets the following data related to relationship violence/sexual assault:

13.1a Subjective assessment

- Presenting complaint
- History (e.g., onset, type [physical, verbal, financial, emotional, sexual], past medical history, mechanism of injury, safety of self and children, suicidal ideation, history of depression, substance use, post-traumatic stress)
- Manifestations (e.g., non-specific complaints of pain, delays in presentations, partner answering for client, frequency of injuries, flat affect, poor eye contact)
- Pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], age- and language-appropriate scale)

13.1b Objective assessment

- Degree of distress (i.e., mild, moderate or severe)
- Inspection (e.g., lacerations, bruises in multiple stages of healing, injuries inconsistent with history or stages of development, bite marks, burns)
- Palpation
- Auscultation (e.g., heart sounds, breath sounds)
- Other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry, Glasgow Coma Scale, weight, Broselow tape)

- 13.1c Diagnostic results (e.g., hematology, chemistry, toxicology, coagulation studies, pregnancy test, diagnostic imaging)

- 13.2 Selects nursing interventions associated with the following alterations in:

13.2a child abuse/neglect/bullying (e.g., physical, verbal, emotional)

13.2b intimate partner violence (e.g., physical, verbal, financial, emotional)

13.2c elder abuse/neglect (e.g., physical, verbal, financial, emotional)

13.2d sexual assault (e.g., child, adult, elder)

Examples

The following are examples of potential nursing interventions to appropriately manage alterations in relationship violence and sexual assault.

- Screen for relationship violence and assault using a direct, kind, non-judgmental approach
- Maintain high index of suspicion (e.g., risk factors for violence)
- Isolate and provide client safety/confidentiality
- Document findings (e.g., direct quotes, size, shape, colour of bruises) and consider taking photographs
- Obtain cultures (e.g., STIs)
- Preserve forensic evidence and maintain chain of custody
- Screen for HIV and hepatitis
- Review options for safety/maintain safety for client, nurse and others (e.g., suicidal ideation, risk factors for abuse)
- Provide referrals (e.g., community resources, sexual assault team, support groups, shelters, social worker, child/adult protection team)

13.3 Selects nursing interventions related to pharmacological agents for relationship violence and sexual assault clients (e.g., antibiotics, emergency contraception, HIV/hepatitis prophylaxis, immunizations, antiemetics, analgesics, anxiolytics)

14. Toxicology (7 competencies)

The emergency nurse...

14.1 Interprets the following data related to toxicological emergencies:

14.1a Subjective assessment

- Presenting complaint
- History (e.g., onset, risk factors, exposure, time, amount, route, intentional versus unintentional, past medical history, substance use)
- Manifestations (e.g., altered levels of consciousness, shortness of breath, cough, fatigue, vomiting, fever, seizures)
- Pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], age- and language-appropriate scale)

14.1b Objective assessment

- Behaviours (i.e., chronic or acute change) (e.g., agitation, bizarre behaviour)
- Degree of distress (i.e., mild, moderate or severe)
- Inspection (e.g., toxidrome indicators [e.g., pupils, skin diaphoresis, skin temperature], work of breathing, skin colour, evidence of poisoning, capillary refill)
- Palpation (e.g., skin temperature)
- Auscultation (e.g., heart sounds, breath sounds)
- Other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry, Glasgow Coma Scale, weight, Broselow tape)

- 14.1c Diagnostic results (e.g., serum and urine toxicology screens, ECG, cardiac monitoring, blood glucose, blood gases, chemistry, hematology, coagulation studies, liver function tests [LFTs], renal function, carboxyhemoglobin, methemoglobin, diagnostic imaging)
- 14.2 Selects nursing interventions associated with the following toxicological emergencies:
- 14.2a toxic exposure (e.g., environmental, chemical)
- 14.2b poisonings and substance use (e.g., recreational drugs, alcohols, prescription drugs, predatorial drugs [e.g., Rohypnol, GHB], inhalants [e.g., glue, cleaners, hair spray])
- 14.2c substance withdrawal (e.g., cocaine, alcohol, narcotics)

Example

The following are examples of potential nursing interventions to appropriately manage toxicological emergencies.

- Utilize risk screening for substance use/withdrawal
- Monitor and reassess ABCDE and vital signs
- Access available resources in a timely manner (e.g., poison information centre, WHMIS)
- Initiate cardiac monitoring
- Administer and monitor measures to decrease absorption of toxin, appropriate to the toxic exposure (e.g., alkalization, forced diuresis, charcoal administration, ethanol infusions)
- Ensure safety of environment (e.g., chemical, biological, radiological, nuclear, explosive [CBRNE] exposure, potential for violence/aggressive behaviour)
- Recognize a group of signs or symptoms that suggest a specific class of toxin exposure
- Initiate IV access and manage IV therapy (e.g., colloids, blood products, crystalloids)
- Observe fluid losses and monitor fluid balance (i.e., intake and output)
- Initiate isolation precautions as indicated
- Provide referrals (e.g., social work, detoxification/withdrawal program, mental health, substance use program)

- 14.3 Selects nursing interventions related to pharmacological agents for toxicological emergencies (e.g., charcoal, sodium bicarbonate, N-acetylcysteine, naloxone, thiamine, dextrose, anexate, sedatives, anticonvulsants, paralytics)

15. Mental Health (8 competencies)

The emergency nurse...

- 15.1 Interprets the following data related to mental health issues including:
- 15.1a Subjective assessment
- Presenting complaint
 - History (e.g., onset, risk factors, suicidal ideation, homicidal ideation, past medical history, substance use, medication history and compliance)
 - Manifestations (e.g., mood, affect, agitation, behaviour, cognition and thought processes, changes in speech pattern, changes in gait)
 - Pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], age- and language-appropriate scale)
- 15.1b Objective assessment
- Degree of distress (i.e., mild, moderate, severe)
 - Inspection (e.g., hygiene/personal appearance, skin colour, motor restlessness)
 - Mental status (e.g., orientation, changes in behaviour or thought process, hallucinations, delusions, changes in perception, judgment)
 - Other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry, Glasgow Coma Scale, weight, Broselow tape)
- 15.1c Diagnostic results (e.g., chemistry, hematology, toxicology, urinalysis, osmolality, therapeutic drug levels, thyroid function, blood glucose, diagnostic imaging)
- 15.2 Selects nursing interventions associated with the following alterations in mental health:
- 15.2a mood and personality disorders (e.g., depression, bipolar, borderline)
- 15.2b anxiety and stress disorders (e.g., panic attacks, anxiety states, post-traumatic stress, situational crisis)
- 15.2c schizophrenia (e.g., psychosis, paranoia, hallucinations)
- 15.2d eating disorders (e.g., anorexia, bulimia)

Examples

The following are examples of potential nursing interventions to appropriately manage alterations in mental health.

- Provide a quiet environment
- Ensure a safe environment (e.g., least restraint)
- Monitor and reassess ABCDE and vital signs
- Perform a suicide risk assessment
- Access resources (e.g., community mental health, social worker, crisis worker, psychiatrist, security, police)
- Ensure safety of environment (e.g., chemical, biological, radiological, nuclear, and explosive [CBRNE] exposure, potential for violence/aggressive behaviour)
- Initiate de-escalation of behaviour as required
- Initiate continuous observation as required
- Initiate isolation precautions as indicated

- 15.3 Selects nursing interventions related to pharmacological agents for mental health (e.g., sedatives, antipsychotics, anxiolytics, antidepressants, benzotropine)

16. Infectious Disease (8 competencies)

The emergency nurse...

- 16.1 Interprets the following data related to infectious diseases:
- 16.1a Subjective assessment
- Presenting complaint
 - History (e.g., onset, risk factors, exposure, recent travel, past medical history, immunizations)
 - Manifestations (e.g., rash, altered level of consciousness, shortness of breath, cough, fatigue, vomiting, agitation, seizures, fever, diarrhea)
 - Pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], age- and language-appropriate scale)
- 16.1b Objective assessment
- Degree of distress (i.e., mild, moderate or severe)
 - Inspection (e.g., rash, petechiae, purpura, work of breathing, skin colour, diaphoresis, capillary refill)
 - Palpation (e.g., skin temperature)
 - Auscultation (e.g., heart sounds, breath sounds)
 - Other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry, Glasgow Coma Scale, weight, Broselow tape)
- 16.1c Diagnostic results (e.g., cerebral spinal fluid, blood glucose, blood gases, chemistry, hematology, coagulation studies, liver function tests [LFTs], creatinine, cultures, parasitology, virology, diagnostic imaging)
- 16.2 Selects nursing interventions associated with the following infectious diseases and processes:
- 16.2a antibiotic-resistant organisms (e.g., methicillin-resistant *Staphylococcus aureus* [MRSA], vancomycin-resistant enterococcus [VRE], extended spectrum beta-lactamase-resistant antibiotics [ESBL], *Clostridium difficile* [C. diff])
- 16.2b non-communicable infections (e.g., West Nile virus, Lyme disease, malaria, *Giardia*, necrotizing fasciitis, cellulitis, tetanus)
- 16.2c communicable infections (e.g., herpes, meningitis, pertussis, mononucleosis, mumps, measles, HIV/AIDS, hepatitis)
- 16.2d severe respiratory infection (SRI) (e.g., SARS, TB, avian flu, H1N1)

Examples

The following are examples of potential nursing interventions to appropriately manage infectious diseases.

- Initiate appropriate isolation precautions
- Notify appropriate medical agency for reportable conditions, identification of close contacts
- Provide symptomatic support

- 16.3 Selects nursing interventions related to pharmacological agents for infectious diseases (e.g., antibiotics, antivirals, antifungals, antimalarials, antipyretics, immunizations)

17. Psychosocial (2 competencies)

The emergency nurse...

- 17.1 Interprets data related to the client's psychosocial needs including experience with the health crisis, coping skills, perceived vulnerability, response to the health-care system, current and past experiences, support systems, and cultural, religious and spiritual values and beliefs
- 17.2 Selects nursing interventions related to the psychosocial management of grief/loss, pain, anxiety, stress, distress and uncertainty (e.g., therapeutic communication, complementary therapies, family support/involvement, relaxation techniques, spiritual and cultural needs)

Examples

The following are examples of potential nursing interventions to advocate and appropriately manage the psychosocial needs of the client and family.

- Provide effective and timely communication to the client and family
- Provide appropriate support for family who wish to be present during crisis situations (e.g., cardiac arrest, trauma resuscitation)
- Ensure that the environment promotes privacy and support
- Provide comfort measures (e.g., positioning, warm blankets, visualization)
- Provide referral to appropriate support resources (e.g., interpreters, pastoral services, age-specific resources)
- Provide appropriate support for client and family in decision-making (e.g., do not resuscitate, organ/tissue donation, sexual assault, notification of police, abuse)

18. Discharge Planning/Client Education (2 competencies)

The emergency nurse...

- 18.1 Identifies priorities for discharge and client education considering the following:
- time
 - resources
 - environment
 - referrals
- 18.2 Selects nursing interventions for discharge planning and client education considering:
- community resources
 - cognitive functioning (age/growth and development appropriate)
 - support systems
 - socio-economic status
 - physical limitations, safety
 - cultural/spiritual beliefs
 - coping mechanisms
 - available resources (e.g., verbal and written instructions, demonstrations)

19. Professional Practice Issues/Legal and Ethical Issues (2 competencies)

The emergency nurse...

- 19.1 Assists in preserving and maintaining continuity of forensic evidence (e.g., assault, blood alcohol kits, relationship violence including child and elder)
- 19.2 Selects nursing interventions related to the following professional practice, legal and ethical issues:
- advance directives
 - child/elder abuse
 - organ/tissue donation/procurement
 - family presence during resuscitation/invasive procedures
 - medical examiner/coroner
 - unidentified client
 - preservation and collection of evidence
 - police requests
 - do not resuscitate (DNR) protocols
 - criminal assault
 - prevention and management of aggressive behaviour
 - critical incident stress management
 - informed consent
 - Mental Health Act
 - capacity assessment

20. Disaster/Emergency Preparedness (5 competencies)

The emergency nurse...

- 20.1 Recognizes situations when the number of incoming clients exceeds the resources of the Emergency Department during the following:
- mass casualty incident
 - pandemic
 - chemical, biological, radiological, nuclear and explosive (CBRNE) exposure
 - natural disaster (e.g., floods, fires, earthquakes, tornadoes, hurricanes blizzards)
- 20.2 Selects nursing interventions associated with disaster preparedness:
- 20.2a Triage multiple casualties in consultation with a physician in the event of a multi-client or disaster scenario
- 20.2b Ensures safety of environment (e.g., chemical, biological, radiological, nuclear and explosive [CBRNE] exposure)
- 20.2c Communicates and collaborates with team to activate emergency plan
- 20.2d Initiates isolation/decontamination procedures

NOTE: The examples presented in the brackets following the competency statements are not meant to be an exhaustive list, but provide examples for clarification.