Summary Chart

Emergency Nursing Certification Exam Development Guidelines

Structural Variables		
Examination Length and Format	Approximately 165 objective questions (e.g., multiple-choice)	
Question Presentation	50-60% independent questions 40-50% case-based questions	
The Cognitive Domain	Knowledge/Comprehension Application Critical Thinking	20-30% of the questions 40-55% of the questions 15-25% of the questions
Competency Categories (179 competencies)	**Categories**	**Weight of Category in the Overall Exam**
	Triage (10 competencies)	5-9% of the questions
	Respiratory (13 competencies)	6-10% of the questions
	Cardiovascular (16 competencies)	7-11% of the questions
	Neurological (15 competencies)	6-10% of the questions
	Multi-System Trauma (8 competencies)	5-9% of the questions
	Maxillofacial, Eye, Ear, Nose and Throat (EENT) (12 competencies)	3-7% of the questions
	Gastrointestinal (15 competencies)	5-9% of the questions
	Genitourinary (10 competencies)	4-8% of the questions
	Obstetrical Client and Female Reproductive System (11 competencies)	3-7% of the questions
	Musculoskeletal/Integumentary (11 competencies)	5-9% of the questions
	Environmental Emergencies (9 competencies)	3-7% of the questions
	Immunology/Hematology/Endocrinology (10 competencies)	5-9% of the questions
	Domestic violence/Sexual Assault (8 competencies)	2-6% of the questions
	Toxicology (7 competencies)	2-6% of the questions
	Mental Health (8 competencies)	3-7% of the questions
	Infectious Disease (10 competencies)	3-7% of the questions
	Psychosocial (2 competencies)	1-5% of the questions
	Discharge Planning/Client Education (2 competencies)	1-3% of the questions
	Professional Practice Issues Legal and Ethical Issues (2 competencies)	1-3% of the questions

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Summary Chart

Emergency Nursing Certification Exam Development Guidelines

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	9-15%	20-26%
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 practised primarily in the hospital setting. However, emergency nursing can also be practised 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.		

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The Emergency Nursing Certification 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); and
  - pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], scale).
- 1.1b Objective assessment:
  - airway, breathing, circulation, disability (ABCD);
  - general physical appearance (e.g., skin colour, diaphoresis, work of breathing, odour);
  - verbal and non-verbal cues (e.g., distress); and
  - physical assessment 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).

1.2 prioritizes and reassesses clients based on the principles of the Canadian Emergency Department Triage and Acuity Scale (2004):

- 1.2a Level 1, Resuscitation;
- 1.2b Level 2, Emergent;
- 1.2c Level 3, Urgent;
- 1.2d Level 4, Less Urgent; and
- 1.2e Level 5, Non Urgent.

1.3 triages multiple casualties in consultation with a physician (e.g., in the event of multi-client or disaster scenario).

1.4 initiates risk screening (e.g., febrile respiratory illness [FRI], sexual assault, domestic violence, elder abuse, child abuse, suicidal ideation, violence toward staff).

1.5 initiates isolation/decontamination procedures.

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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); and
- pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], scale).

2.1b Objective assessment:

- degree of distress (i.e., mild, moderate or severe);
- inspection (e.g., 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);
- palpation (e.g., subcutaneous emphysema, tenderness, crepitus, deformities, chest wall integrity, skin temperature);
- percussion;
- auscultation (e.g., airway patency, cough); and
- other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry).

2.1c diagnostic results (e.g., arterial blood gases, peak flow measurements, end-tidal CO_2, D-dimers).

2.2 selects nursing intervention 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 traumatic chest injuries (e.g., rib fractures, flail chest, pulmonary contusion, pneumothorax, tension pneumothorax, hemothorax);

2.2c pulmonary embolism;

2.2d inhalation injuries (e.g., environmental, chemical, thermal);

2.2e asthma, status asthmaticus;

2.2f chronic obstructive pulmonary disease (COPD);

2.2g pneumonia;

2.2h bronchiolitis, acute bronchitis; and

2.2i pulmonary edema.

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Examples

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

- Monitoring and reassessing ABCD and vital signs.
- Positioning (e.g., high Fowler's).
- Manual techniques (e.g., chin lift, jaw thrust, use of oral and nasal airways, suctioning, bag-valve-mask).
- Assisting with endotracheal intubation (e.g., rapid sequence induction).
- Assisting with alternate ventilation management (e.g., bag-valve-mask ventilation, CPAP, mechanical ventilation).
- Assisting with surgical airway management (e.g., cricothyrotomy).
- Endotracheal/tracheostomy tubes (e.g., suctioning).
- Assisting with insertion of chest tube and monitoring of chest drainage system.

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

3. Cardiovascular (16 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); and
- pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], 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);

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- auscultation (e.g., heart sounds); and
- other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry, bilateral and/or postural blood pressure).

3.1c diagnostic results (e.g., cardiac markers, hematology, coagulation profile, chemistry, toxicology, 12-lead and 15-lead ECG, cardiac monitoring).

3.2 selects nursing intervention 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; and

3.2l cardiomyopathy.

Examples

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

- Monitor and reassess vital signs, perfusion, neurological status and cardiac rhythms.
- Initiate I.V. access as appropriate.
- Monitor intake and output of fluids (e.g., fluid resuscitation, crystalloids and colloids).
- Assist with/perform defibrillation, cardioversion, temporary external pacing, pericardiocentesis, central line insertion.

3.3 selects nursing intervention related to pharmacological agents in the cardiovascular system (e.g., oxygen, analgesia, nitrates, anticoagulants, thrombolytic/fibrinolytic agents, inotropes, antihypertensives, anti-arrhythmic agents).

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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); and
- pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], 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's sign, raccoon eyes, posturing, pupils, extra-ocular movements, rhinorrhea, otorrhea, gait, skull symmetry);
- palpation (e.g., fontanels, skin temperature, spinal column tenderness);
- auscultation (e.g., pulse pressure); and
- other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry, Glasgow Coma Scale, limb movement and sensation, spinal testing).

4.1c diagnostic results (e.g., cerebral spinal fluid, hematology, chemistry, coagulation studies, blood glucose, toxicology).

4.2 selects nursing intervention to appropriately manage the following alterations in neurological function:

4.2a seizure activity, status epilepticus;

4.2b meningitis/encephalitis;

4.2c acute ischemic/hemorrhagic stroke;

4.2d spinal cord/vertebral injury or anomalies;

4.2e spinal shock/neurogenic shock/ autonomic dysreflexia;

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); and

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

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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 and reassess neurological status and vital signs.

4.3 selects nursing intervention related to pharmacological agents in the neurological system (e.g., oxygen, anti-convulsants, 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., mechanism, injuries, vitals, treatment [MIVT], precipitating events, life and/or limb threatening injuries, past medical history);
- manifestations (e.g., blood loss, loss of consciousness, paresthesia); and
- pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], scale).

5.1b Objective assessment:

- primary survey (i.e., airway with C-spine precautions, breathing, circulation and disability [ABCD]);
- secondary survey (i.e., head to toe, front to back); and
- other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry).

5.1c diagnostic results appropriate to involved systems (e.g., arterial blood gases, hematology, chemistry, urinalysis, coagulation studies, toxicology, radiology).

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

5.2a burns (i.e., thermal, chemical, radiation, electrical);

5.2b blast injuries (e.g., explosions);

5.2c blunt trauma (i.e., acceleration, deceleration, compression, rotation); and

5.2d penetrating trauma (e.g., knife, gunshot, impaled, assaults).

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Examples

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

- Anticipate the need for adjuncts to care (e.g., devices to stabilize fractures, insertion of chest tubes, naso/oral gastric tubes, urinary catheterization, wound management).

Alterations in 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).
- Manual techniques (e.g., chin lift, jaw thrust, oral and nasal airways, suctioning, bag-valve-mask).
- Assist with endotracheal intubation with rapid sequence induction (RSI) and anterior counter-traction.

Circulation

- Initiate vascular access.
- Assist with insertion of intraosseous (IO)/central lines.
- Initiate and maintain fluid resuscitation (e.g., colloids, crystalloids, blood products, fluid balance).
- Maintain normothermic environment/prevent iatrogenic hypothermia (e.g., warm fluid/blankets/environment/lights).
- Monitor and reassess vital signs.
- Monitor intake and output.
- Obtain type and crossmatch.

Disability

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

5.3 selects nursing intervention related to pharmacological agents utilized in multi-system trauma (e.g., oxygen, anesthetics, analgesics, sedatives, paralytics, inotropes, antibiotics, immunizations, steroids, H2 inhibitors).

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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 and motor changes, tinnitus, dysphagia, changes in phonation, edema, bleeding/drainage); and
  - pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], 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); and
  - other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry).
- 6.1c diagnostic results (e.g., hematology, chemistry, coagulation studies).

6.2 selects nursing intervention 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); and
- 6.2h maxillofacial injuries/disease (e.g., dislocation/temporal mandibular joint syndrome, trigeminal neuralgia, Bell's palsy, dental avulsion).

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Examples

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

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

6.3 selects nursing intervention related to pharmacological agents utilized in maxillofacial and EENT conditions (e.g., oxygen, topical anesthetics, antibiotics, diuretics, 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); and
- pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], 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); and
- other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry).

7.1c diagnostic results (e.g., hematology, chemistry, toxicology, coagulation studies, 12-lead ECG, pregnancy test, urinalysis, osmolality, cultures, occult blood, liver function tests, creatinine).

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7.2 selects nursing intervention 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 varicies, 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); and
- 7.2k constipation/diarrhea.

Examples

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

- Monitor and reassess ABCD and vital signs.
- Prepare for procedures (e.g., paracentesis, endoscopy, sigmoidoscopy, colonoscopy, Blakemore tube, diagnostic peritoneal lavage, foreign body removal, surgical intervention).
- Insert and monitor naso/orogastric tube.
- Initiate and administer I.V. fluids (e.g., colloids, blood products, crystalloids).
- Monitor fluid balance (e.g., intake and output).
- Initiate isolation precautions as indicated.

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

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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, ulcers); and
- pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], scale).

8.1b Objective assessment:

- degree of distress (e.g., mild, moderate, severe);
- inspection (e.g., skin colour, hematuria, perineal edema, diaphoresis);
- palpation;
- percussion (e.g., bladder, costovertebral angle); and
- other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry).

8.1c diagnostic results (e.g., urinalysis, hematology, chemistry, coagulation studies, urea, creatinine).

8.2 selects nursing intervention 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 (i.e., acute or chronic);

8.2d sexually transmitted infection (STI);

8.2e scrotal/penile injury/priapism/testicular torsion; and

8.2f urinary retention or obstruction, foreign bodies.

Examples

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

- Assisting with/performing urinary catheterization (e.g., supra-pubic, urethral, continuous bladder irrigation [CBI]).
- Assisting with obtaining culture samples.
- Monitoring intake and output.
- Straining of urine (e.g., calculi).

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

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9. Obstetrical Client and Female Reproductive System (11 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, previous cesarean birth, sexually transmitted infection [STI], Streptococcus B, HIV/AIDS);
- manifestations (e.g., discharge, bleeding, nausea, vomiting, changes in fetal movement, headache, blurred vision); and
- pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], 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); and
- other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry).

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).

9.2 selects nursing intervention 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 or therapeutic, septic, missed);

9.2c pregnancy-induced hypertension, eclampsia, hemolysis, elevated liver enzymes and low platelets (HELLP syndrome), hyperemesis gravidarum;

9.2d abruptio placenta, placenta previa (e.g., amniotic fluid embolism, DIC), emergency child birth (e.g., unexpected delivery, cord prolapse, meconium-stained amniotic fluid, breech birth), ruptured uterus;

9.2e foreign bodies, perineal trauma;

9.2f infection (e.g., mastitis, perineum, STI, pelvic inflammatory disease, toxic shock syndrome); and

9.2g postpartum hemorrhage (e.g., retained products, episiotomy).

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Examples

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

- Monitor and reassess ABCD 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 type and crossmatch.
- Initiate/manage I.V. therapy.
- Assist with care of the neonate and mother.
- Prepare for surgical intervention.
- Preparing for epidural.
- 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).

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, edema); and
- pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], 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, range of motion);
- palpation (e.g., temperature, pallor, pulses, paralysis, paresthesia); and
- other physical assessments (e.g., vital signs, pulse oximetry).

10.1c diagnostic results (e.g., myoglobin, uric acid, CK, hematology, chemistry, coagulation studies, D-dimers, sedimentation rate, radiology).

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10.2 selects nursing intervention 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 inflammatory states (e.g., arthritis, lupus, gout);
- 10.2e infectious processes (e.g., necrotizing fasciitis, cellulitis, osteomyelitis, abscesses);
- 10.2f skin disorders (e.g., psoriasis, hives, erythema, rashes, ulcerations, eczema); and
- 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 ABCD and vital signs.
- Assess and monitor circulation, sensation and movement.
- 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 I.V. access.
- Prepare for OR.
- Prepare for fasciotomy.
- Removal of wound debris and wound cleansing (e.g., debridement, road rash).
- Ring removal.

10.3 selects nursing intervention related to pharmacological agents in the musculoskeletal/integumentary system (e.g., oxygen, antibiotics, analgesics, sedatives, local and topical anesthetic, antihistamines, steroids, NSAIDS, immunizations, antiemetics, anti-virals, anti-fungals).

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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, dizzy, confusion, agitation); and
- pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], scale).

11.1b Objective assessment:

- degree of distress (mild, moderate or severe);
- inspection (e.g., burns, skin colour, blisters, singed facial hair, respiratory status, circulatory status, skin integrity, burn percentage and degree, renal status);
- palpation (e.g., pallor, pulses, paralysis, parathesia, temperature);
- auscultation (e.g., chest); and
- other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry, Glasgow Coma Scale).

11.1c diagnostic results (e.g., hematology, chemistry, coagulation and toxicology, carboxyhemoglobin, myoglobin, 12- and 15-lead ECG, arterial blood gases, pulse oximetry, urinalysis, creatinine).

11.2 selects nursing intervention 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; and

11.2e bites and stings from humans, animals, insects, arthropods, snakes, venomous marine animals (e.g., rabies, bee sting, jelly fish).

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Examples

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

- Monitoring and reassessing ABCD and vital signs.
- Assisting with intubation.
- Removing source, flushing as required.
- Initiating warming or cooling measures.
- Initiating cardiac monitoring.
- Administering and monitoring fluid resuscitation (e.g., colloid, crystalloid, blood product).
- Initiating isolation precautions as indicated.

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

12. Immunology/Hematology/Endocrinology (10 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, swelling, weight loss/gain, shortness of breath, increased thirst, fever); and
- pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], scale).

12.1b Objective assessment:

- degree of distress (i.e., mild, moderate or severe);
- inspection (e.g., diaphoresis, respiratory rate, dry mucous membranes);
- palpation (e.g., poor skin turgor, capillary refill);
- auscultation; and
- other physical assessments (e.g., vital signs, pulse oximetry).

12.1c diagnostic results (e.g., urine/serum ketones, blood glucose, serum calcium/magnesium/phosphate, blood gases, hematology, chemistry, coagulation studies, thyroid studies).

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12.2 selects nursing intervention associated with the following alterations in immunologic/hematological/endocrine functions:

- 12.2a hyperglycemic emergencies (e.g., diabetic ketoacidosis [DKA], hyperosmolar hyperglycemic nonketotic 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, disseminated intravascular coagulation, sickle cell crisis, hemophilia); and
- 12.2f oncological emergencies (e.g., spinal cord compression syndrome, malignant effusions [pleural, pericardial, peritoneal], hypercalcemia, febrile neutropenia).

Examples

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

- Monitor and reassess ABCD and vital signs.
- Monitor capillary/serum glucose levels, electrolytes, arterial blood gases, osmolality.
- Monitor neurological and vital signs.
- Administer and monitor blood products.
- Administer and monitor I.V. fluids.
- Monitor intake and output.
- Initiate isolation precautions as indicated.

12.3 selects nursing intervention related to pharmacological agents for the immunologic/hematological/endocrine systems (e.g., oxygen, hypoglycemic agent, insulin, anticoagulants, analgesics, glucocorticoids, diuretics, thyroid therapy, beta adrenergic blocking agents, hormones, vitamin K, D50W, electrolytes).

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13. Domestic Violence/Sexual Assault (8 competencies)

The emergency nurse:

13.1 interprets the following data related to domestic violence/sexual assault:

- 13.1a Subjective assessment:
  - presenting complaint;
  - history (e.g., onset, risk factors, type [physical, verbal, financial, emotional, sexual], past medical history, mechanism of injury, safety of self and children, suicidal ideation, history of depression, substance abuse, post-traumatic stress);
  - manifestations (e.g., non-specific complaints of pain, delays in presentations, partner answering for client, frequency of injuries); and
  - pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], 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, flat affect, poor eye contact);
  - palpation;
  - auscultation; and
  - other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry, Glasgow Coma Scale).
- 13.1c diagnostic results (e.g., hematology, chemistry, toxicology, coagulation profile, pregnancy test).

13.2 selects nursing intervention associated with the following alterations in:

- 13.2a child abuse/neglect (e.g., physical, verbal, emotional);
- 13.2b partner violence (e.g., physical, verbal, financial, emotional);
- 13.2c elder abuse/neglect (e.g., physical, verbal, financial, emotional); and
- 13.2d sexual assault (e.g., child, adult, elder).

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Examples

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

- Screen for domestic violence and assault using a direct, kind, non-judgmental approach.
- Isolate and provide client safety/confidentiality.
- Document findings (e.g., direct quotes, size, shape, colour of bruises) and consider taking photographs.
- Assist/obtain cultures (e.g., STIs).
- Preserve forensic evidence and maintain chain of custody.
- HIV and hepatitis screening.
- Review options for safety/maintain safety for client, nurse and others.
- Provide referrals (e.g., community resources, sexual assault team, support groups, shelters, social worker, child/adult protection team).
- Mandatory reporting (e.g., children).

13.3 selects nursing intervention related to pharmacological agents for domestic 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 vs. unintentional, past medical history, substance abuse);
- manifestations (e.g., altered levels of consciousness, shortness of breath, cough, fatigue, vomiting); and
- pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], scale).

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14.1b Objective assessment:

- behaviours (i.e., chronic or acute change) (e.g., agitation, seizures);
- degree of distress (i.e., mild, moderate or severe);
- inspection (e.g., pupils, work of breathing, diaphoresis, skin colour);
- palpation (e.g., skin temperature);
- auscultation; and
- other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry, Glasgow Coma Scale).

14.1c diagnostic results (e.g., serum and urine toxicology screens, ECG, cardiac monitoring, blood glucose, blood gases, chemistry, hematology, coagulation profile, liver function tests [LFTs], renal function, carboxyhemoglobin, methemoglobin).

14.2 selects nursing intervention associated with the following toxicological emergencies:

14.2a toxic exposure (e.g., environmental, chemical);

14.2b poisonings and substance abuse (e.g., recreational drugs, alcohols, prescription drugs, predatorial drugs [e.g., Rohypnol, GHB]; and

14.2c substance withdrawal (e.g., cocaine, alcohol, narcotics).

Examples

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

- Monitor and reassess ABCD and vital signs.
- Access available resources (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., alkalinization, forced diuresis [i.e., increase fluids to flush kidneys], charcoal administration, ethanol infusions).
- Ensure safety of environment (e.g., chemical, biological, radiological, and nuclear [CBRN] exposure).
- Initiate isolation precautions as indicated.
- Provide referrals.

14.3 selects nursing intervention related to pharmacological agents for toxicological emergencies (e.g., antidotes such as charcoal, sodium bicarbonate, N-acetylcysteine, naloxone, thiamine, dextrose, anexate, cathartic, sedatives, anti-convulsives, paralytics).

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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);
  - manifestations (e.g., mood, affect, agitation, behaviour, cognition and thought processes); and
  - pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], scale).
- 15.1b Objective assessment:
  - degree of distress (i.e., mild, moderate, severe);
  - neurological exam;
  - inspection (e.g., hygiene/personal appearance, skin colour, extrapyramidal symptoms, motor restlessness, changes in speech pattern);
  - mental status (i.e., orientation, changes in behaviour or speech or thought process, hallucinations, delusions, changes in perception, judgment); and
  - other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry, Glasgow Coma Scale).
- 15.1c diagnostic results (e.g., chemistry, hematology, toxicology, urine, alcohol and osmolality, therapeutic drug levels, thyroid function).

15.2 selects nursing intervention associated with the following alterations in mental health:

- 15.2a mood and personality disorders (e.g., depression, bipolar, borderline, anti-social);
- 15.2b anxiety and stress disorders (e.g., panic attacks, anxiety states, hyperventilation syndrome, post-traumatic stress, situational crisis);
- 15.2c schizophrenia (e.g., psychosis, paranoia, catatonia, hallucinations); and
- 15.2d eating disorders (e.g., anorexia, bulimia).

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Examples

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

- Provide quiet environment.
- Ensure safe environment (e.g., least restraint).
- Monitor and reassess ABCD and vital signs.
- Access resources (e.g., community mental health, social worker, crisis worker, psychiatrist, security, police).
- Initiate de-escalation of behaviour as required.
- Initiate one-to-one observation as required.
- Initiate isolation precautions as indicated.

15.3 selects nursing intervention related to pharmacological agents for mental health (e.g., sedatives, antipsychotics, anxiolytics, diphenhydramine, antidepressants, benztropine).

16. Infectious Disease (10 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);
- manifestations (e.g., rash, level of consciousness, shortness of breath, cough, fatigue, vomiting, agitation, seizures, fever, diarrhea); and
- pain (e.g., provoking factors, quality, region and radiation, symptoms and severity, timing and treatment [PQRST], scale).

16.1b Objective assessment:

- physical appearance;
- degree of distress (i.e., mild, moderate or severe);
- inspection (e.g., rash, petechiae, purpura, work of breathing, skin colour, diaphoresis);
- palpation (e.g., skin temperature);
- auscultation; and
- other physical assessments related to presenting illness or injury (e.g., vital signs, pulse oximetry, Glasgow Coma Scale).

16.1c diagnostic results (e.g., cerebral spinal fluid, blood glucose, blood gases, chemistry, hematology, coagulation profile, liver function tests [LFT], renal function, cultures, parasitology, virology).

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16.2 selects nursing intervention associated with the following infectious diseases and processes:

- 16.2a HIV/AIDS, hepatitis, tetanus (e.g., needle stick injury, sexual assault);
- 16.2b antibiotic-resistant organisms (e.g., methicillin-resistant Staphylococcus aureus [MRSA], vancomycin-resistant entercoccous [VRE]);
- 16.2c non-communicable infections (e.g., West Nile virus, Lyme disease, malaria, Giardia, necrotizing fasciitis, cellulitis);
- 16.2d communicable infections (e.g., herpes, meningitis, pertussis, mononucleosis, mumps, measles);
- 16.2e severe respiratory infection (SRI) (e.g., SARS, TB, avian flu); and
- 16.2f immunocompromised client.

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 intervention 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 intervention 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).

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Examples

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

- Provide effective and timely communication to the client and significant others.
- Provide appropriate support for significant others who wish to be present during crisis situations (e.g., cardiac arrest, trauma resuscitation).
- Ensure that 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).
- Provide appropriate support for client and significant others 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 constraints:

- time;
- resources; and
- environment.

18.2 selects appropriate nursing intervention 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; and
- coping mechanisms.

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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, domestic violence including child and elder).

19.2 selects appropriate nursing intervention related to the following professional practice, legal and ethical issues:

- advance directives;
- mandatory reporting of child abuse;
- organ/tissue donation/procurement;
- family presence during resuscitation/invasive procedures;
- medical examiner/coroner;
- unidentified client;
- police requests;
- do not resuscitate (DNR) protocols;
- criminal assault;
- zero tolerance policy (e.g., staff abuse); and
- critical incident stress management.

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

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