

Summary Chart

Gastroenterology Nursing Certification Exam Development Guidelines

Structural Variables				
Exam Length and Format	Approximately 180 objective questions (e.g., multiple-choice)			
Question Presentation	60-70% independent questions 30-40% case-based questions			
Cognitive Ability Levels of Questions	Knowledge	20-35% of questions		
	Application	40-50% of questions		
	Critical Thinking	20-30% of questions		
Category	Anatomy, Physiology and Pathophysiology	15-20% of questions		
	Pharmacology	10-15% of questions		
	Diagnostic Tests and Therapeutic Procedures	20-25% of questions		
	Care of Gastroenterology Patient	35-40% of questions		
	Performance Assurance	10-15% of questions		
Contextual Variables				
Patient Age and Gender	Age Group	Males	Females	Total
	Child (0-12)	2-5%	2-5%	4-10%
	Adolescent (12-19)	3-9%	2-6%	5-15%
	Adult (20-65)	25-35%	20-30%	45-65%
	Older Adult (65+ years old)	11-15%	9-10%	20-25%
Patient Culture	Questions measuring awareness, sensitivity, and respect for different cultural values, beliefs, and practices, without introducing stereotypes, are included on the exam.			
Patient Health Situation	In the development of the Gastroenterology Nursing Exam, the patient is viewed holistically. The patient health situations presented reflect a cross-section of health promotion, protection, active treatment, long-term care, rehabilitation care, and palliative care.			
Health-Care Environment	It is recognized that gastroenterology nursing is practised in a variety of settings. The health-care environment is specified only where it is required for clarity or in order to provide guidance to the candidate.			

The Gastroenterology Nursing Exam List of Competencies

I. Anatomy, Physiology and Pathophysiology

- 1.1 The gastroenterology nurse describes normal anatomy including structure and characteristics of:
- 1.1a mouth
 - 1.1b esophagus
 - 1.1c stomach
 - 1.1d small intestine
 - 1.1e large intestine
 - 1.1f biliary system
 - 1.1g pancreas
 - 1.1h liver
- 1.2 The gastroenterology nurse describes normal gastrointestinal physiology including mechanical and chemical function:
- 1.2a esophagus motility
 - 1.2b stomach motility, secretion
 - 1.2c small intestine motility, absorption, secretion
 - 1.2d large intestine motility, absorption, secretion, elimination
 - 1.2e biliary system motility, secretion, storage
 - 1.2f pancreas enzyme production
 - 1.2g liver bile formation and secretion, metabolism, coagulation, detoxification, vitamin storage
- 1.3 The gastroenterology nurse describes the symptoms, pathophysiology and evolution of the following disorders of the:
- 1.3a mouth:
 - benign/malignant tumors
 - Crohn's
 - infectious disease
 - ulcers

- 1.3b esophagus
- esophagitis/gastro-esophagal reflux disease
 - varices
 - benign/malignant tumors
 - strictures
 - rings and webs
 - diverticula
 - Mallory Weiss tear
 - motility disorders
 - Barrett's
 - fistula
 - infectious diseases
 - ulcers

- 1.3c stomach
- peptic ulcer
 - helicobacter pylori
 - polyps
 - varices
 - benign/malignant tumors
 - hiatal hernia
 - gastritis
 - motor dysfunction
 - infectious diseases
 - bezoars
 - vascular malformations
 - pyloric obstruction
 - Zollinger Ellison

- 1.3d small intestine
 - duodenal ulcer
 - infectious diseases
 - parasitic infection
 - Crohn's disease
 - benign/malignant tumors
 - malabsorption syndrome
 - vitamin B₁₂ deficiency
 - vascular malformations
 - duodenitis
 - small bowel obstruction

- 1.3e large intestine
 - polyps
 - vascular malformations
 - inflammatory bowel disease
 - megacolon
 - irritable bowel syndrome
 - chronic recurrent abdominal pain syndrome
 - parasitic infections
 - diverticular disease
 - benign/malignant tumors
 - intestinal obstruction
 - volvulus
 - anorectal disorders

- 1.3f biliary system
 - cholelithiasis
 - choledocholithiasis
 - cholecystitis
 - cholangitis
 - benign/malignant tumors
 - congenital abnormalities
 - primary sclerosing cholangitis

- 1.3g pancreas
- pancreatitis
 - pseudocysts
 - fistula
 - Zollinger Ellison
 - benign/malignant tumors
 - cystic fibrosis
 - pancreatic enzyme insufficiency

- 1.3h liver
- glycogen storage diseases
 - cirrhosis
 - hepatitis
 - benign/malignant tumors
 - coagulopathy
 - primary biliary cirrhosis
 - porphyria
 - vascular malformations

1.4 The gastroenterology nurse describes the symptoms, pathophysiology and evolution of congenital anomalies:

1.4a Wilson's disease

1.4b Meckel's diverticulum

1.4c pyloric obstruction

1.4d hemochromatosis

1.5 The gastroenterology nurse describes the symptoms, pathophysiology and evolution of eating disorders:

1.5a anorexia nervosa

1.5b morbid obesity

1.5c bulimia

II. Pharmacology

- 2.1 The gastroenterology nurse describes nursing considerations (e.g., administration, dosage, indications, contraindications, adverse effects, interactions and expected outcomes) for the following types of agents:
- 2.1a antacids, anti-ulcer
 - 2.1b antibiotics, anti-infectives, anti-parasitic & anti-fungal
 - 2.1c anti-diarrheals & anti-flatulents
 - 2.1d anti-emetics
 - 2.1e anti-inflammatory
 - 2.1f cholinergics & anti-cholinergics
 - 2.1g contrast agents
 - 2.1h corticosteroids
 - 2.1i diuretics
 - 2.1j immunotherapy
 - 2.1k laxatives, cathartics and bulk agents
 - 2.1l narcotics & antagonists
 - 2.1m sedatives & antagonists
 - 2.1n sclerosing agents
 - 2.1o topical and local anesthetics
 - 2.1p other therapeutic agents (i.e., vasoconstrictors)
- 2.2 The gastroenterology nurse describes nursing considerations (e.g., administration, dosage, indications, contraindications, adverse effects, interactions and expected outcomes) for the various types of nutritional therapies:
- 2.2a oral
 - 2.2b enteral
 - 2.2c parenteral
- 2.3 The gastroenterology nurse has a general awareness of food, over-the-counter drugs, herbal remedies or alternative therapies known to have an effect on the gastroenterological system or to interact with other drugs.

III. Diagnostic Tests and Therapeutic Procedures

- 3.1 The gastroenterology nurse describes the general procedure and basic principles (including equipment, indications, contraindications, patient preparation and potential complications) for the following diagnostic tests:
- 3.1a esophagogastroduodenoscopy
 - 3.1b endoscopic retrograde cholangiopancreatography (ERCP)
 - 3.1c colonoscopy
 - 3.1d enteroscopy
 - 3.1e small bowel capsule study
 - 3.1f sigmoidoscopy
 - 3.1g anoscopy
 - 3.1h endoscopic ultrasound
 - 3.1i manometry
 - 3.1j 24-hour PH monitoring
 - 3.1k specimen collection
 - 3.1l diagnostic imaging
- 3.2 The gastroenterology nurse demonstrates a general understanding of the significance of diagnostic test results:
- 3.2.1 Recognizes significant deviation from normal diagnostic test results.
 - 3.2.2 Uses appropriate nursing actions regarding diagnostic test results.
- 3.3 The gastroenterology nurse describes the general procedure and basic principles (including equipment, indications, contraindications, patient preparation and potential complications) for the following therapeutic interventions:
- Hemostasis and Tumour Ablation**
- 3.3a variceal therapies
 - 3.3b tamponade
 - 3.3c injection therapy
 - 3.3d argon plasma coagulation
 - 3.3e thermal ablation

Intubation and drainage

- 3.3f gastric lavage
- 3.3g nasogastric/nasobiliary/nasoenteric
- 3.3h stents
- 3.3i percutaneous endoscopic feeding tubes
- 3.3j decompression
- 3.3k paracentesis

Excision and Extraction

- 3.3l foreign body removal
- 3.3m polyp removal
- 3.3n stone retrieval and removal
- 3.3o sphincterotomy

Other

- 3.3p transplantation (liver)
- 3.3q dilatation

- 3.4 The gastroenterology nurse demonstrates knowledge of the common types of surgery used for gastro-intestinal problems in order to prepare the patient regarding pre and postoperative care.
- 3.5 The gastroenterology nurse demonstrates basic knowledge of signs and symptoms of potential gastroenterological emergencies or complications arising from gastroenterological procedures or other causes:
 - 3.5a gastroenterological tract perforation
 - 3.5b gastroenterological hemorrhage
 - 3.5c vasovagal syndrome
 - 3.5d aspiration
 - 3.5e pancreatitis/cholangitis/bile leaks
 - 3.5f toxic megacolon
 - 3.5g foreign body
 - 3.5h obstruction
 - 3.5i other emergencies (i.e., ileus)

IV. Care of the Gastroenterology Patient

4.1 Collection of data

The gastroenterology nurse:

- 4.1.1 Selects the method(s) of collection using all appropriate sources (e.g., family, previous health records, lab, community services, etc.).
- 4.1.2 Collects the relevant objective and subjective data.
- 4.1.3 Performs a physical assessment appropriate to the patient's condition.
- 4.1.4 Identifies relevant risk factors including genetics, life style and environmental exposures.

4.2 Interpretation of data

Based on the data obtained, the gastroenterology nurse:

- 4.2.1 Interprets data and results.
- 4.2.2 Identifies the most significant results and problem areas.
- 4.2.3 Formulates a nursing diagnosis.
- 4.2.4 Recognizes a crisis situation.

4.3 Identification of outcomes

The gastroenterology nurse:

- 4.3.1 Identifies expected outcomes.
- 4.3.2 Collaborates with the patient and other members of the health care team to set realistic goals.

4.4 Implementation of care plan

The gastroenterology nurse develops a holistic care plan to help achieve patient goals:

- 4.4.1 Coordinates the sequence of diagnostic procedures for gastroenterological investigation.
- 4.4.2 Identifies priorities for nursing actions while considering available resources and environmental limitations.
- 4.4.3 Plans for the safety of patient, nurse and others through appropriate measures (e.g., infection control).
- 4.4.4 Delegates to and supervises auxiliary personnel.
- 4.4.5 Demonstrates awareness of psychological aspects of gastroenterological disease (body image, eating disorders, morbid obesity) and consults with appropriate health care professionals to determine the plan of care.
- 4.4.6 Demonstrates understanding of psychosocial and physical impact (incontinence, fistula, etc.) of therapies or gastroenterological disease.
- 4.4.7 Demonstrates knowledge of the assessment and management of pain.

- 4.5 The gastroenterological nurse evaluates the effectiveness of care based on expected outcomes
 - 4.5.1 Monitors patient condition and modifies care plan accordingly.
 - 4.5.2 Develops a discharge plan in conjunction with team members.
 - 4.5.3 Communicates with members of the multidisciplinary team through documentation and other appropriate means.
- 4.6 The gastroenterological nurse provides teaching and patient/family education
 - 4.6.1 Demonstrates an awareness of strategies for prevention and health promotion (e.g., lifestyle modifications).
 - 4.6.2 Utilizes various teaching methods.
 - 4.6.3 Communicates in a manner and level that is understandable to the patient.
 - 4.6.4 Selects the appropriate information to be communicated (depending on time, patient, situation).
 - 4.6.5 Identifies the persons with whom to communicate about prevention and/or lifestyle changes.
 - 4.6.6 Demonstrates an understanding of the advantages of early detection for some gastroenterological disorders.
 - 4.6.7 Demonstrates an awareness of support groups and other resources and refers appropriately.

V. Performance Assurance

- 5.1 Infection Control and Environmental Safety

The gastroenterology nurse:

 - 5.1.1 Demonstrates knowledge of the general principles of disinfection and sterilization of equipment (as described, for example, in the Canadian Society of Gastroenterology Nurses and Associates Guidelines or in other referenced guidelines).
 - 5.1.2 Demonstrates an understanding of risk factors related to the safety of the patient and the health care team (e.g., body substance precautions, positioning, equipment, environment and radiation).
- 5.2 Ethics

The gastroenterology nurse:

 - 5.2.1 Practises according to the CNA Code of Ethics for Registered Nurses.
 - 5.2.2 Provides patients and families with the information required to make informed decisions.
 - 5.2.3 Demonstrates support of patients and families in their decisions.
 - 5.2.4 Demonstrates respect for patients' religious, cultural and personal values.
 - 5.2.5 Recognizes potential ethical dilemmas related to decision-making regarding end-of-life support.

5.3 Research

The gastroenterology nurse:

- 5.3.1 Demonstrates a basic understanding of the research process and implications for gastroenterology practice.
- 5.3.2 Demonstrates an ability to read gastroenterology research articles and draw clinical interpretation from the research data.
- 5.3.3 Demonstrates a basic understanding of incidence and prevalence concepts as they apply to gastroenterological disease.
- 5.3.4 Demonstrates a basic understanding of how genetic factors or other factors (environmental, lifestyle, etc.) impact on gastroenterological disease.
- 5.3.5 Demonstrates the use of best practice to improve quality patient care.
- 5.3.6 Demonstrates awareness of the applicability of different outcome measures.

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