Exam Blueprint and Specialty Competencies

Introduction – Blueprint for the Wound, Ostomy and Continence Nursing Certification Exam

The primary function of the blueprint for the CNA Wound, Ostomy and Continence 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 wound, ostomy and continence 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 wound, ostomy and continence (WOC) 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 Wound, Ostomy and Continence Nursing Certification 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 Wound, Ostomy and Continence Nursing Certification Exam, the content consists of the competencies of a fully competent practising WOC 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

The final list of competencies was updated and approved by the Wound, Ostomy and Continence 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 set of competencies for WOC nurses, the following assumptions, based on current national standards for nursing practice, were made:

The Wound, Ostomy and Continence Client

- is an individual of any age with integumentary, wound, ostomy or continence issues;
- is an individual, a family, a group and/or a community. The family is defined by the client;
- is viewed within the biological, psychological, social, cultural, ethnical, developmental, environmental and spiritual dimensions of a total life experience; and
- is a health-care provider, organization, community group or government agency.

The Nurse Specialized in Wound, Ostomy and Continence

- is a registered nurse;
- has completed a wound, ostomy and continence education program recognized by the World Council of Enterostomal Therapy;
- promotes efficient, effective and appropriate health care programs/services in a variety of settings across the continuum of care;
- applies a specialized and expanding body of knowledge of integumentary, wound, ostomy and continence care to the practice of nursing;
- applies the principles of professional practice;
- applies evidence-informed research to best practice;
- facilitates knowledge transfer related to wound, ostomy and continence nursing care and practice with others;
- continues to incorporate advancing technology in the specialty of wound, ostomy and continence nursing, adhering to legal and ethical standards of practice;
- establishes age-appropriate therapeutic relationships with clients;
- incorporates a holistic client assessment in the development of their plan of care;
- works in collaboration with the client and those individuals whom the client identifies as being significant to his/her care, to incorporate the individual's goals into the plan of care;
- facilitates self-management;
- advocates for clients by facilitating navigation of the health-care system;
- provides leadership in the specialty of wound, ostomy and continence nursing;
- pursues professional growth and development and maintains competence through continuing education, ongoing experience in the specialty of wound, ostomy and continence nursing;
- identifies potential research topics, initiates and/or participates in research;

- applies and facilitates knowledge translation of research;
- participates in the professional development of colleagues through mentorship and preceptorship;
- applies critical thinking to practice;
- advises administrative decision-makers regarding efficient and effective health-care delivery and outcomes;
- advocates for improvements in health policy;
- applies the Nurses Specialized in Wound, Ostomy and Continence Canada Standards of Practice;
- exercises ethical and legal judgments relevant to relationships with industry;
- initiates and participates in quality improvement programs at local, provincial, national and international levels;
- promotes wound, ostomy and continence nursing; and
- promotes interprofessional collaboration.

Well-being

- is a personal concept that includes biological, psychological, social, cultural, ethnical, developmental, environmental and spiritual dimensions; and
- is the extent to which an individual, group or community is able to realize aspirations and to function in his or her environment.

Competency Categories

The competencies are classified under an five-category scheme commonly used to organize wound, ostomy and continence nursing.

Some of the competencies lend themselves to one or more of the categories; therefore, these five 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.

Competency Sampling

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

Table 1: Competency Sampling

Categories	Approximate weights in the total examination
Integumentary System	5-10%
Wounds	30-40%
Ostomy, Fistula, Percutaneous Sites	20-30%
Continence	20-30%
Professional Practice	5-10%

Technical Specifications

In addition to the specifications related to the competencies, other variables are considered during the development of the Wound, Ostomy and Continence 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 Wound, Ostomy and Continence Nursing Certification Exam, 50 to 60 per cent of the questions are presented as independent questions and 40 to 50 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 Wound, Ostomy and Continence 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 WOC 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.

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

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

Table 2: Distribution of Questions for Each Level of Cognitive Ability

Cognitive Ability Level	Percentage of questions on Wound, Ostomy and Continence Nursing Certification Exam
Knowledge/Comprehension	15-25%
Application	45-55%
Critical Thinking	25-35%

Contextual Variables

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 Wound, Ostomy and Continence Nursing Certification Exam, the client is viewed holistically. The client health situations presented also reflect a cross-section of health situations encountered by WOC nurses.

Health-Care Environment: Wound, ostomy and Continence nursing is practised in the primary, secondary and tertiary levels in community, acute, chronic and long-term/continuing care settings. However, wound, ostomy and continence nursing can also be practised in other settings. Therefore, for the purposes of the Wound, Ostomy and Continence Nursing Certification Exam, the health-care environment is specified only where it is required for clarity or in order to provide guidance to the examinee.

Conclusions

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

Wound, ostomy and continence 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

Wound, Ostomy and Continence Nursing Certification Exam Development Guidelines

Structural Variables		
Exam Length and Format	Approximately 165 multiple choice questions	
Question Presentation	50-60% independent questions 40-50% case-based questions	
Cognitive Ability Levels of Questions	Knowledge/Comprehension: Application: Critical Thinking:	15-25% of questions 45-55% of questions 25-35% of questions
Competency Categories	Integumentary System Wounds Ostomy, Fistula, Percutaneous sites Continence Professional Practice	5-10% of questions 30-40% of questions 20-30% of questions 20-30% of questions 5-10% of questions
Contextual Variables		
Client Age and Gender	Child & Adolescent. (0-18 years old) Adult (19-64 years old) Older Adult (65+ years old)	15-20% 35-45% 35-45%
Client Culture	Questions are included that measure awareness, sensitivity and respect for different cultural values, beliefs and practices, without introducing stereotype.	
Client Health Situation	The client is viewed holistically within the context of stable and unstable health situations across the client's life cycle. The client health situations presented also reflect a cross-section of health situations encountered by nurses specialized in wound, ostomy and continence.	
Health-Care Environment	The practice environment of the nurse specialized in wound, ostomy and continence can be any setting or circumstance within which nursing is practiced. Most of the competencies are not setting dependent. The health-care environment will be specified where necessary.	

The Wound, Ostomy and Continence Nursing Certification Exam

List of Competencies

INTEGUMENTARY SYSTEM

General Principles of the Integumentary System

The nurse specialized in wound, ostomy and continence:

01.01 Describes the anatomy of the integumentary system (e.g., epidermis, dermis, subcutaneous tissue, accessory organs).

01.02 Describes the physiology and function of the integumentary system (protection, immune response, thermoregulation, sensation, metabolism, communication, identification, age-related factors).

01.03 Identifies factors affecting integumentary integrity (e.g., medications, nutrition, hydration).

01.04 Recognizes the indications for and use of integumentary products and applications (e.g., moisturizers, creams, no-rinse cleansers, protective barriers).

Assessment of the Integumentary System

The nurse specialized in wound, ostomy and continence:

01.05 Demonstrates a focused assessment of the integumentary system including:

- 01.05a history and physical (e.g., presenting symptoms, allergies, lifestyle factors, self-care ability, diagnostic and laboratory tests); and
- 01.05b biopsychosocial (e.g., cognitive status, quality of life, socio-economic status), gestational age).

01.06 Identifies integumentary system risk factors.

Principles of Integumentary Management

The nurse specialized in wound, ostomy and continence:

01.07 Recognizes factors contributing to integumentary alteration (e.g., effects of medication, chemotherapy, radiation therapy, nutrition).

01.08 Manages integumentary environment:

- 01.08a prevents and eliminates infection;
- 01.08b cleanses skin;
- 01.08c maintains and restores moisture balance (e.g., absorb exudate, add moisture);
- 01.08d maintains and restores pH;
- 01.08e protects integumentary from trauma and contamination (e.g., pressure, skin tears);
- 01.08f maintains thermal environment (e.g., internal, external);
- 01.08g teaches avoidance of ultraviolet radiation; and
- 01.08h manages pain.

01.09 Evaluates integumentary assessment data to adjust treatment plan.

01.10 Collaborates with other health-care professionals about clients with integumentary alterations.

01.11 Explains to clients, caregivers and health-care providers the prevention and treatment of integumentary alterations.

WOUNDS

General Principles of Wounds

The nurse specialized in wound, ostomy and continence:

02.01 Describes the physiology of wound healing including:
- 02.01a repair;
- 02.01b regeneration;
  - 02.01b.i hemostasis;
  - 02.01b.ii inflammatory;
  - 02.01b.iii proliferative; and
  - 02.01b.iv remodeling.

02.02 Identifies factors affecting wound healing.

Assessment of Wounds

The nurse specialized in wound, ostomy and continence:

02.03 Demonstrates a focused assessment of a client with a wound including:
- 02.03a history and physical; and
- 02.03b biopsychosocial

02.04 Identifies intrinsic and extrinsic wound risk factors.

02.05 Completes an initial and ongoing wound assessment including:
- 02.05a etiology;
- 02.05b location;
- 02.05c extent of tissue damage (e.g., classification, staging);
- 02.05d phase of healing;
- 02.05e wound size;
- 02.05f undermining, sinus tracts, tunnels;
- 02.05g wound bed;
- 02.05h wound edges;
- 02.05i exudate;
- 02.05j periwound skin (e.g., induration, edema, colour);
- 02.05k infection;

02.05l odour;
02.05m pain. and
02.05n validated assessment tool (e.g., Bates-Jensen Wound Assessment Tool).

Principles of Wound Management

The nurse specialized in wound, ostomy and continence:

02.06 Differentiates wound healability (e.g., healable, non healable, maintenance).
02.07 Recognizes contributing factors related to wounds (e.g., nutrition).
02.08 Manages wound bed preparation:
- 02.08a prevents and manages infection and inflammation;
- 02.08b describes the role of biofilm in chronic wounds
- 02.08c describes appropriate use of culturing techniques;
- 02.08d cleanses wound and periwound;
- 02.08e removes nonviable tissue;
- 02.08f maintains moisture balance;
- 02.08g maintains and restores pH;
- 02.08h eliminates dead space;
- 02.08i controls odour;
- 02.08j protects wound from trauma and contamination;
- 02.08k protects periwound skin;
- 02.08l maintains thermal environment; and
- 02.08m manages pain.

02.09 Evaluates wound assessment data to adjust treatment plan.
02.10 Collaborates with other health-care professionals regarding clients with wounds.
02.11 Explains wound prevention and treatment to clients, caregivers and health-care providers.
02.12 Describes the indications for and appropriate use of wound care products.

Wound Types

Integumentary alteration (e.g., medical adhesive related skin injury (MARSI),moisture associated skin damage (MASD), infectious factors, allergic factors, radiation, extravasation)

The nurse specialized in wound, ostomy and continence:

02.13 Interprets data related to a client presenting with integumentary alteration including:
- 02.13a history and physical;
- 02.13b integumentary assessment; and
- 02.13c wound assessment (e.g., GLOBIAD - Ghent Global IAD Categorization Tool).

02.14 Devises a plan of care for a client with integumentary alteration.

02.15 Formulates nursing interventions to prevent and manage integumentary alteration.

Pressure injury

The nurse specialized in wound, ostomy and continence:

02.16 Interprets data related to a client presenting with a pressure injury including:
- 02.16a history and physical
- 02.16b wound assessment (e.g., NPUAP staging); and
- 02.16c risk assessment e.g. risks factors, use of a validated tool).

02.17 Devises a plan of care for a client with a pressure injury.

02.18 Formulates nursing interventions to prevent and manage pressure injury based on potential to heal.

Venous leg ulcers

The nurse specialized in wound, ostomy and continence:

02.19 Interprets data related to a client presenting with venous leg ulcers including:
- 02.19a history and physical;
- 02.19b lower limb assessment (e.g., Ankle Brachial Pressure Index (ABPI), toe pressure, edema, calf muscle pump, capillary refill);
- 02.19c wound assessment; and
- 02.19d skin assessment.

02.20 Devises a plan of care for a client with venous leg ulcers.

02.21 Formulates nursing interventions to prevent recurrence of venous leg ulcers.

02.22 Formulates nursing interventions to manage venous leg ulcers.

Arterial wounds

The nurse specialized in wound, ostomy and continence:

02.23 Interprets data related to a client presenting with an arterial wound including:

- 02.23a history and physical;
- 02.23b lower limb assessment (e.g., Ankle Brachial Pressure Index (ABPI), toe pressure, edema, calf muscle pump, capillary refill);
- 02.23c wound assessment; and
- 02.23d skin assessment.

02.24 Devises a plan of care for a client with an arterial wound.

02.25 Formulates nursing interventions to prevent arterial wounds.

02.26 Formulates nursing interventions to manage arterial wounds based on potential for healing.

Mixed venous/arterial leg ulcers

The nurse specialized in wound, ostomy and continence:

02.27 Interprets data related to a client presenting with mixed venous/arterial leg ulcer:

- 02.27a history and physical;
- 02.27b mixed venous/arterial leg ulcer assessment (e.g., Ankle Brachial Pressure Index (ABPI), toe pressure, edema, calf muscle pump capillary refill;
- 02.27c wound assessment; and
- 02.27d skin assessment.

02.28 Devises a plan of care for a client with mixed venous/arterial leg ulcer.

02.29 Formulates nursing interventions to prevent mixed venous/arterial leg ulcer.

02.30 Formulates nursing interventions to manage mixed venous/arterial leg ulcer based on potential for healing.

Neuropathic

The nurse specialized in wound, ostomy and continence:

02.31 Interprets data related to a client presenting with a neuropathic ulcer:

- 02.31a history and physical (e.g., presence and duration of diabetes, previous ulceration, blood glucose, $HgbA_{1c}$);
- 02.31b lower limb assessment (e.g., motor, sensory and autonomic neuropathy, ABPI, toe pressure);
- 02.31c wound assessment; and
- 02.31d skin assessment.

02.32 Identifies risk/wound classification for ulceration and amputation (e.g., Wagner, University of Texas, Lower Extremity Amputation Prevention).

02.33 Devises a plan of care for a client with a neuropathic ulcer.

02.34 Formulates nursing interventions to prevent neuropathic ulceration.

02.35 Formulates nursing interventions to manage neuropathic ulceration based on potential for healing.

Lymphedema

The nurse specialized in wound, ostomy and continence:

02.36 Interprets data related to a client presenting with primary and secondary lymphedema:

- 02.36a history and physical;
- 02.36b assessment of affected body part;
- 02.36c wound assessment; and
- 02.36d skin assessment.

02.37 Devises a plan of care for a client with primary and secondary lymphedema.

02.38 Formulates nursing interventions to manage primary and secondary lymphedema (e.g., compression garments, skin care).

Surgical wounds

The nurse specialized in wound, ostomy and continence:

02.39 Interprets data related to a client presenting with surgical wounds including:

- 02.39a history and physical;
- 02.39b wound assessment (e.g., healing ridge, seroma, hematoma, fistula, abscess, necrosis); and
- 02.39c skin assessment.

02.40 Devises a plan of care for a client with surgical wounds.

02.41 Formulates nursing interventions to manage surgical wounds and prevent complications (e.g., surgical site infection).

Skin tears and traumatic wounds

The nurse specialized in wound, ostomy and continence:

02.42 Interprets data related to a client presenting with a skin tear or traumatic wound including:

- 02.42a history and physical (e.g., history of skin tears, mechanism of injury);
- 02.42b educates others about initial first aid (e.g., bleeding control, tetnus immunization status);
- 02.42c wound assessment (e.g., ISTAP Skin Tear Classification system, healing ridge);

02.42d skin assessment (e.g., skin turgor, skin maturity, skin changes associated with aging); and

02.42e risk assessment (e.g., ISTAP Risk Assessment Pathway).

02.43 Devises a plan of care for a client with a skin tear or a traumatic wound.

02.44 Formulates nursing interventions to prevent skin tears or traumatic wounds (e.g., self-inflicted, implementing twice daily skin moisturizing).

02.45 Formulates nursing interventions to manage skin tears or traumatic wounds.

Thermal wounds

The nurse specialized in wound, ostomy and continence:

02.46 Interprets data related to a client presenting with a thermal wound including:

02.46a history and physical (e.g., circumstances, exposure to chemical agents, electricity, extreme temperatures);

02.46b wound assessment (e.g., infection, Lund-Browder, Rule of nines, calculation of area); and

02.46c skin assessment.

02.47 Devises a plan of care for a client with a thermal wound.

02.48 Formulates nursing interventions to prevent recurrence of thermal injury.

02.49 Formulates nursing interventions to manage thermal injury (e.g., manage pruritus).

Atypical wounds

The nurse specialized in wound, ostomy and continence:

02.50 Interprets data related to a client presenting with atypical wounds including:

02.50a history and physical (e.g., pyoderma gangrenosum, vasculitis, comorbidities such as scleroderma, systemic lupus, bullous pemphigoid, epidermolysis bullosa);

02.50b wound assessment (e.g., pain); and

02.50c skin assessment.

02.51 Devises a plan of care for a client with atypical wounds.

02.52 Formulates nursing interventions to manage a client with atypical wounds.

Oncology wounds

The nurse specialized in wound, ostomy and continence:

02.53 Interprets data related to a client presenting with an oncology wound including:

02.53a history and physical (e.g., oncology treatment);

02.53b wound assessment (e.g., location and relation to underlying structures, odour, extent of tissue erosion, bleeding, pain, satellite lesions); and

02.53c skin assessment.

02.54 Devises a plan of care for a client with an oncology wound.

02.55 Formulates nursing interventions to prevent radiation dermatitis.

02.56 Formulates nursing interventions to manage oncology wounds (e.g., control bleeding, bioburden/infection, protect periwound skin, aesthetics , symptom management, pruritus).

Skin changes at life's end

The nurse specialized in wound, ostomy and continence:

02.57 Interprets data related to a client presenting with skin changes at life's end including:

02.57a history and physical (e.g., underlying comorbidities, treatments);

02.57b educates others about skin changes and care goals at life's end;

02.57c wound assessment;

02.57d skin assessment (e.g. skin failure); and

02.57e risk assessment (e.g., frailty, degree of skin failure).

02.58 Devises a plan of care for a client with skin changes at life's end.

02.59 Formulates nursing interventions to prevent and manage skin breakdown at life's end (e.g., implementing twice daily skin moisturizing).

02.60 Collaborates with the interprofessional team to explore available treatment options, accepted by the person, for physical, psychosocial and spiritual symptom management.

OSTOMY, FISTULA AND PERCUTANEOUS SITES

General Principles of Ostomy, Fistula and Percutaneous Sites

Gastrointestinal

The nurse specialized in wound, ostomy and continence:

03.01 Describes the anatomy of the gastrointestinal system (e.g., upper gastrointestinal tract, small intestine, large intestine, accessory organs);

03.02 Describes the physiology of the gastrointestinal system(e.g., motility, absorption, secretion, elimination and storage);

03.03 Describes the pathophysiology of the gastrointestinal system including:

- 03.03a inflammatory;
- 03.03b infectious;
- 03.03c ischemic;
- 03.03d obstructive;
- 03.03e malignant;
- 03.03f other (e.g., familial adenomatous polyposis, intestinal trauma); and
- 03.03g congenital.

03.04 Describes surgical procedures involving the gastrointestinal system (e.g., abdominoperineal resection, low anterior resection, Hartmann's procedure, subtotal colectomy, ileorectal anastomosis, total proctocolectomy with end ileostomy, ileoanal anastomosis):

- 03.04a types of continent diversions; and
- 03.04b stoma construction.

Genitourinary

The nurse specialized in wound, ostomy and continence:

03.05 Describes the anatomy of the urinary system (e.g., upper urinary tract, lower urinary tract);

03.06 Describes the physiology of the urinary system(e.g., urine formation and elimination, homeostasis);

03.07 Describes the pathophysiology of the urinary system including:

- 03.07a congenital (e.g., cloacal exstrophy, cloacal anomaly, bladder exstrophy, prune belly syndrome, myelomeningocele);
- 03.07b malignancy; and
- 03.07c other (e.g., trauma, interstitial cystitis, neurogenic).

03.08 Describes surgical procedures involving the urinary system:

- 03.08a indications and types of incontinent urinary diversions; and
- 03.08b indications and types of continent urinary diversions.

Sexuality and Reproduction

The nurse specialized in wound, ostomy and continence:

03.09 Describes the anatomy of the male and female reproductive systems;

03.10 Describes the physiology of the male and female reproductive systems; and

03.11 Describes the pathophysiology of surgical procedures on sexual function and reproduction.

Assessment of Ostomy, Fistula, Percutaneous Sites

The nurse specialized in wound, ostomy and continence:

03.12 Demonstrates a focused assessment of a client with an ostomy, fistula or percutaneous site including:

- 03.12a history and physical;
- 03.12b biopsychosocial (e.g., quality of life, socio-economic status, body image, culture, impact of disease on self and family dynamics, birth history, sexuality);
- 03.12c abdomen;
- 03.12d stoma;
- 03.12e output; and
- 03.12f skin.

Principles of Ostomy, Fistula and Percutaneous Site Management

The nurse specialized in wound, ostomy and continence:

03.13 Devises a plan of care for a client with an ostomy, fistula or percutaneous site;

03.14 Explains diagnosis and surgical procedures for a client with an ostomy, fistula or percutaneous site;

03.15 Formulates interventions including:

- 03.15a teaching and counselling perioperatively;
- 03.15b assessing and determining stoma site location;
- 03.15c selecting products;
- 03.15d managing stoma complications;
- 03.15e managing peristomal conditions; and
- 03.15f referrals to community resources and other health-care professionals.

Fecal and Urinary Diversions (Colostomy, Ileostomy, Urostomy)

Colostomy

The nurse specialized in wound, ostomy and continence:

03.16 Differentiates anatomical locations of colostomies and expected output;
03.17 Identifies a plan of care based on type of colostomy and a client's preferences and needs;
03.18 Teaches management of mucous fistula and/or rectal stump;
03.19 Explains impact of diet (e.g. to prevent constipation or reduce gas);
03.20 Explains the difference between a temporary and a permanent colostomy; and
03.21 Teaches colostomy irrigation to suitable clients.

Ileostomy

The nurse specialized in wound, ostomy and continence:

03.22 Describes the expected output from an ileostomy;
03.23 Describes strategies to prevent and correct fluid and electrolyte imbalances;
03.24 Teaches about changes in absorption (e.g., medications, diet, B_{12});
03.25 Teaches management of mucous fistula and/or rectal stump;
03.26 Teaches a client with an ileostomy about the signs and symptoms of:
  03.26a obstruction; and
  03.26b fluid and electrolyte imbalance.
03.27 Teaches strategies to prevent and manage food blockage to a client with an ileostomy (e.g., dietary considerations);
03.28 Describes ileostomy lavage; and
03.29 Explains the differences between a temporary and permanent ileostomy.

Urostomy

The nurse specialized in wound, ostomy and continence:

03.30 Describes the expected output of a urostomy;
03.31 Teaches a client with a urostomy about:
  03.31a adequate fluid intake;
  03.31b dietary considerations;
  03.31c use of night drainage system; and
  03.31d mucous management.

03.32 Describes peristomal complications related to prolonged contact with urine (e.g., alkaline encrustations, pseudoverrucous lesions);

03.33 Describes the management of stents and catheters in situ;

03.34 Teaches a client with a urostomy about signs and symptoms of urinary tract infections; and

03.35 Teaches a client with a urostomy how to obtain urine specimens.

Continent Diversions

Fecal Diversions

The nurse specialized in wound, ostomy and continence

03.36 Describes the different types of continent fecal diversions (e.g., J-pouch, Kock pouch);

03.37 Teaches a client regarding expected outcomes of continent fecal diversions (e.g., number of bowel movements per day, continence, dietary modifications);

03.38 Teaches a client regarding complications (e.g., pouchitis, valve failure, stricture, incontinence, pouch failure); and

03.39 Implements nursing interventions in the immediate postoperative period following fecal diversions (e.g., perianal skin protection, intubation, irrigation).

Urinary Diversions

The nurse specialized in wound, ostomy and continence:

03.40 Describes the different types of continent urinary diversions (e.g., Indianapolis pouch, neobladder, Mitrofanoff);

03.41 Implements nursing interventions in the immediate postoperative period (e.g., managing drains and tubes, skin protection, intubation, irrigation);

03.42 Teaches a client how to integrate management of continent urinary diversion into daily care (e.g., skin protection, managing drains and tubes, intubation, irrigation, mucus management); and

03.43 Teaches a client regarding complications (e.g., valve failure, pouchitis, stricture, infection, pouch failure, incontinence).

Fistula and Percutaneous Sites

Fistula

The nurse specialized in wound, ostomy and continence:

03.44 Identifies etiologic factors and manifestations of a fistula;

03.45 Completes an assessment of a client with a fistula including:

- 03.45a source (e.g., bowel, bladder);
- 03.45b location (e.g., enterocutaneous, enteroatmospheric);
- 03.45c topography (e.g., number of sites, proximity to bony prominences, scars, creases, incisions, drain, stoma, below, at, or above skin level, muscle tone surrounding opening);
- 03.45d characteristics of output (e.g., type, source, volume, odour, consistency, gas, pH, colour);
- 03.45e perifistular skin (e.g., intact, macerated, erythematous, denuded, eroded, ulcerated, infected);
- 03.45f fluid and electrolyte, dietary and nutritional considerations; and
- 03.45g factors that delay spontaneous closure (e.g., presence of foreign body, cancer, irradiated area, Crohn's disease, abscess).

03.46 Devises a plan of care for a client with a fistula; and

03.47 Formulates measures to manage a fistula (e.g., contain output, odour control, comfort measures, measurement of output, perifistular skin protection, optimize mobility, pouching system, dressing, suction, topical negative pressure therapy, pharmacological management).

Percutaneous Sites

The nurse specialized in wound, ostomy and continence:

03.48 Identifies type and purpose of percutaneous tubes and drains (e.g., enteral, urinary);

03.49 Identifies patency and placement of percutaneous tubes and drains;

03.50 Recommends stabilization method for percutaneous tubes and drains;

03.51 Explains measures to prevent and manage complications for clients with percutaneous tubes and drains (e.g., tube migration, dislodgement, obstruction, leakage);

03.52 Explains measures to prevent and manage peritube skin damage (e.g., infection, hypergranulation, chemical, mechanical,); and

03.53 Teaches a client with a percutaneous tube or drain about the care and use of equipment (e.g., hygiene).

Containment Products and Accessories

The nurse specialized in wound, ostomy and continence:

03.54 Describes the indications for use of containment products and accessories; and

03.55 Formulates plan of care for application of containment products and accessories.

CONTINENCE

General Principles of Continence

The nurse specialized in wound, ostomy and continence:

04.01 Identifies goals and factors affecting outcomes for a client with urinary incontinence/dysfunction and fecal incontinence/bowel dysfunction;

04.02 Describes the anatomy of micturition and defecation;

04.03 Describes the physiology of micturition and defecation across the lifespan;

04.04 Describes the pathophysiology of bladder and bowel incontinence/dysfunction; and

04.05 Identifies the surgical procedures that may result in urinary and/or fecal incontinence.

General Assessment of Incontinence/Dysfunction

The nurse specialized in wound, ostomy and continence:

04.06 Performs a focused assessment of a client with incontinence/dysfunction including:

- 04.06a history and physical (e.g., cognitive impairment, environmental barriers, functional impairment,); and
- 04.06b biopsychosocial (e.g., quality of life, socio-economic status, motivation,, culture, impact of disease on self and family dynamics, birth history, sexual health/trauma).

04.07 Identifies risk factors that may contribute to incontinence/dysfunction (e.g., smoking, obesity, exercise, sexual health, obstetrical history, diet and hydration, radiation);

04.08 Completes an initial and ongoing assessment of a client with incontinence/dysfunction including:

- 04.08a abdomen;
- 04.08b skin;
- 04.08c urogenital exam – external;
- 04.08d pelvic exam: visual/digital exam;
- 04.08e rectal exam;
- 04.08f neuromuscular testing (e.g., anal wink,); and
- 04.08g external sphincter assessment.

04.09 Identifies etiology of urinary incontinence/dysfunction type including:

- 04.09a stress incontinence;
- 04.09b urge/overactive bladder;
- 04.09c acute and chronic urinary retention;
- 04.09d neurogenic bladder;
- 04.09e lower urinary tract symptoms and functional incontinence in older adults;
- 04.09f lower urinary tract symptoms in pediatrics; and

04.09g congenital urinary tract abnormalities.

04.10 Identifies etiology of fecal incontinence/bowel dysfunction type including:

- 04.10a constipation;
- 04.10b diarrhea;
- 04.10e irritable bowel syndrome;
- 04.10d incontinence;
- 04.10e surgical and medical procedures that may cause fecal incontinence/bowel dysfunction; and
- 04.10f congenital fecal incontinence/bowel dysfunction.

General Principles of Incontinence/Dysfunction Management

The nurse specialized in wound, ostomy and continence:

04.11 Teaches conservative measures for bladder and bowel management:

- 04.11a dietary and fluid management;
- 04.11b toileting schedule;
- 04.11c emptying techniques (e.g., Credé manoeuvre, double voiding, abdominal massage);
- 04.11d bowel and bladder training programs;
- 04.11e skin care; and
- 04.11f pelvic muscle re-education.

04.12 Selects containment products and devices (e.g., briefs, pouches, condom catheter);

04.13 Identifies pharmacological treatment;

04.14 Describes surgical options to treat bowel and urinary incontinence and/or dysfunction; and

04.15 Initiates referrals to health-care professionals (e.g., sexual health counselling, dietitian, pelvic floor physiotherapist) and community resources.

Urinary Incontinence/Dysfunction

The nurse specialized in wound, ostomy and continence:

04.16 Interprets data for a client presenting with urinary incontinence/dysfunction including:

- 04.16a history and physical; and
- 04.16b assessment of incontinence/dysfunction (e.g., signs and symptoms of urinary tract infection, diagnostic tests such as post-void residual urine measurement, EMG studies, bladder diary, urodynamics).

04.17 Devises a plan of care for a client with urinary incontinence/dysfunction;

04.18 Formulates nursing interventions to prevent urinary incontinence/dysfunction (e.g., behavioural management techniques such as bladder retraining, urge suppression techniques, environmental modifications, pelvic floor muscle exercises,scheduled or timed voiding);

04.19 Formulates nursing interventions to manage urinary incontinence/dysfunction (e.g., bladder emptying techniques such as double void, , suprapubic catheterization, catheter management); and

04.20 Describes criteria for recommending indwelling urinary catheterization or intermittent catheterization.

Fecal Incontinence/ Bowel Dysfunction

The nurse specialized in wound, ostomy and continence:

04.21 Interprets data for a client presenting with fecal incontinence/bowel dysfunction including:

- 04.21a history and physical (e.g., quality of life, bowel diary, associated conditions such as infection, pelvic organ prolapse, fistula, pelvic pain syndrome, neuromuscular conditions, trauma, obstructions, encopresis, congenital abnormalities); and
- 04.21b assessment of incontinence/dysfunction (e.g., diagnostic tests such as anal wink test, motility studies, anal-rectal manometry, endoscopic procedures).

04.22 Devises a plan of care for a client with fecal incontinence/ bowel dysfunction.

04.23 Formulates nursing interventions to prevent and manage fecal incontinence/bowel dysfunction (e.g., behavioural techniques such as bowel retraining, dietary management, pelvic floor muscle exercises, containment devices, bowel cleansing, fluid and electrolyte management, antigrade colonic procedures, skin care).