Mapping entry competencies to the REx-PN™ Test Plan

Purpose and Background

In this paper, the foundational entry-level/entry-to-practice competencies needed by LPNs/RPNs are compared with the content covered in the REx-PN Test Plan. The results show all but one of these competencies map to the REx-PN activity statements and corresponding content. The Test Plan will be a valuable tool for educators and students to use to help prepare for the REx-PN.

Background

The Regulatory Exam – Practical Nurse (REx-PN) is a new entry-to-practice exam being developed by the British Columbia College of Nurses and Midwives (BCCNM), formerly the British Columbia College of Nursing Professionals (BCCNP), and the College of Nurses of Ontario (CNO) in partnership with the National Council of State Boards of Nursing (NCSBN). Beginning in January 2022, those applying to practice as licensed practical nurses (LPNs) in British Columbia or as Registered Practical Nurses (RPNs) in Ontario will need to pass the REx-PN. Passing the exam will show that applicants have the knowledge, skills and judgment to integrate needed competencies into their first year of practice. In British Columbia these competencies are referred to as practical nurse entry-level competencies (ELCs), and in Ontario they are referred to as entry-to-practice competencies (ETPCs).

To begin developing the REx-PN, activities currently performed by LPNs/RPNs in their first year of practice in BC and Ontario were gathered and analyzed, along with information on the frequency of these activities and their level of importance to patient safety. The resulting 2019 REx-PN Practice Analysis was then used when developing the REx-PN Test Plan (also known as an exam blue-print). The test plan outlines the categories of content that will be tested on the REx-PN and the percentage of exam questions assigned to each category. It includes LPN/RPN activity statements and related content under each category that applicants can use to help prepare for the exam, and it provides other resources and instruction for educators in developing exam questions.

The REx-PN is only one of the entry requirements an applicant must meet. The other requirements (for example, program approval/recognition) would assess that all ELCs/ETPCs are addressed in the curriculum. Like other entry-level exams, the REx-PN is not intended to test everything a student is taught in their education program, and does not test all competencies needed throughout a nurse's career. The regulatory exam is designed to measure that the applicant has the necessary knowledge, skills and judgement needed to practice nursing safely and effectively within their first year of practice.

Methods

In November 2019, BCCNM and CNO staff with expertise in entry-level competencies and exam development held a two-day in-person mapping meeting with two LPN/RPN educators (one from BC and one from Ontario). Participants received copies of the 2019 ELCs/ETPCs, REx-PN Practice Analysis, and draft REx-PN Test Plan prior to the meeting.

The mapping analysis process was conducted as follows:

- Participants discussed the overall mapping objectives and reviewed the process for mapping. All participants confirmed their understanding of the process

- Participants were assigned to work in pairs; each educator worked with a regulator

- Each pair was assigned specific REx-PN activity statements and corresponding content statements. Within the pairs, each participant independently reviewed one REx-PN activity statement and corresponding content, and identified the various ELCs/ETPCs it aligned with

- Each pair then reviewed their assigned REx-PN activity statements to identify agreed-upon ELCs/ETPCs and discuss content where differences in mapping existed. Each pair discussed the relationships among these, looking for fit and alignment, and came to agreement on which ELCs/ETPCs mapped to the REx-PN analysis activity statements and content details

- Early in the process, the groups were brought together to clarify any questions and ensure all groups were completing the process as outlined

- Once the pair reached consensus on the content mapped to the REx-PN activity statement and corresponding content, the results were input into an Excel spreadsheet for all participants to review. An example is provided.

Example: Mapping 2019 ELCs/ETPCs to REx-PN Activity Statement and Content

REx-PN Activity Statement and Content	2019 ELCs/ETPCs

Pharmacological and Parenteral Therapies
 	
Pharmacological Pain Management Devices
 	
- **Maintain pain control devices (e.g., epidural, client control analgesia, peripheral nerve catheter)***
 	
  o Evaluate and document the client's use and response to pain medications
 	
  o Identify signs and symptoms of complications of pain control devices
	2 – Practises autonomously within legislated scope of practice

	5 – Practises within own level of competence. Applies principles of client safety
	16 – Maintains current knowledge about trends and issues that impact the client, the licensed/registered practical nurse, the health-care team and the delivery of health services
	35 – Documents according to established legislation, standards of practice, ethics and organizational policies
	36 – Obtains informed consent to support client's informed decision-making
	51 – Applies principles of client safety
	61 – Demonstrates knowledge of nursing theory, pharmacology, health sciences, humanities and ethics
	62 – Applies knowledge of pharmacology and principles of safe medication practice

*Links directly to Practice Analysis Statements (*Activity Statements used in the 2019 British Columbia and Ontario PN practice analysis)

Appendix A contains a few more mapping examples.

After the mapping of ELCs/ETPCs to REx-PN Test Plan practice activity statements and corresponding content was completed at the in-person mapping analysis, further analysis was done to analyze coverage for each ELC/ETPC. Reverse mapping was conducted to analyze the coverage of REx-PN content for each ELC/ETPC. See the example below.

Example: Mapping REx-PN Test Plan Practice Activity Statement and Content to 2019 ELCs/ETPCs

2019 ELCs/ETPCs	REx-PN Test Plan Practice Activity Statement and Content

18 - Recognizes, responds and reports own and others' near misses, errors and adverse events.	**Management of Care**
	
	Legal Rights and Responsibilities
	
	■ **Respond to the unsafe practice of a health care provider (e.g., intervene, report)***
	
	Quality Improvement
	
	■ **Participate in performance improvement projects and quality improvement processes***
	
	  ○ Report identified client care issues/problems to appropriate personnel
	
	Safety and Infection Control
	
	Reporting of Incident/Event/Irregular Occurrence/Variance
	
	■ **Identify practice errors/near misses and intervene***
	
	  ○ Identify need/situation where reporting of incident/event/irregular occurrence/variance is appropriate
	
	  ○ Evaluate response to error/event/occurrence

*Links directly to Practice Analysis Statements (*Activity Statements used in the 2019 British Columbia and Ontario PN practice analysis)

Results

This analysis shows that the REx-PN Test Plan aligns with the competencies LPNs/RPNs need in their first year of practice. All but one (98.7%) of ELCs/ETPCs map to the REx-PN activity statements and corresponding content. The one ELC/ETPC that did not map to the REx-PN Test Plan was #19 **Distinguishes between the mandates of regulatory bodies, professional association and unions**.

The Test Plan will be a valuable tool for educators and students to use to help prepare for the REx-PN.

Appendix A

Competency Mapping Examples for LPN ELCs/RPN ETPCs Mapping Paper

The following table represents a sample of the mapping of ELCs/ETPCs to the REx-PN practice analysis activity statements/related content, which form the framework of the test plan for the REx-PN. The column on the left lists an LPN ELC/RPN ETPC statement for practical nurses. Three competencies (#6, 37 and 70) were selected to use in this sample table to demonstrate how they map to the REx-PN test plan. The statements are organized into one of five categories (Professional Practice, Foundations of Practice, Collaborative Practice, Legal Practice and Ethical Practice), three of which are shown in this table.

The column on the right represents the practice activity statements/related content (**bold** and asterisk*), which are grouped into Client Needs Categories (e.g., Health Promotion and Maintenance, Psychosocial Integrity) and subcategories (e.g., Developmental Stages and Transitions, Therapeutic Communication).

Practical Nurse Competency Statement (ELC/ETPC)	REx-PN Test Plan practice analysis activity statements/related content
Professional Practice	

6. Initiates, maintains and terminates the therapeutic nurse-client relationship	**Health Promotion and Maintenance**
	
	Developmental Stages and Transitions
	
	■ **Identify barriers to communication***
	
	Psychosocial Integrity
	
	Therapeutic Communication
	
	■ **Use therapeutic communication techniques***
	
	  o Assess verbal and nonverbal client communication needs
	
	  o Respect the client's personal values and beliefs
	
	  o Allow time to communicate with the client
	
	  o Encourage client to verbalize feelings (e.g., fear, discomfort)
	
	  o Evaluate the effectiveness of communications with the client
	
	Therapeutic Environment
	
	  o Identify external factors that may interfere with client recovery (e.g., stressors, family dynamics)
	
	  o Make client room assignments that support the therapeutic milieu

Foundations of Practice	
37. Completes comprehensive health assessments of clients across the lifespan	**Safety and Infection Control** **Accident/Error/Injury Prevention** ■ **Assess client for allergies and sensitivities and intervene as needed*** **Health Promotion and Maintenance** **Developmental Stages and Transitions** ■ **Assess client's growth and development throughout the lifespan*** o Identify expected physical, cognitive and psychosocial stages of development o Identify expected body image changes associated with client developmental age (e.g., aging, pregnancy) o Compare client development to expected age/developmental stage and report any deviations o Assess impact of change on family system (e.g., one-parent family, divorce, ill family member) o Recognize cultural and religious influences that may impact family functioning o Assist client to cope with life transitions (e.g., attachment to newborn, parenting, puberty, retirement) o Modify approaches to care in accordance with client developmental stage (use age appropriate explanations of procedures and treatments) o Provide education to client/staff members about expected age-related changes and age-specific growth and development (e.g., developmental stages) o Evaluate client's achievement of expected developmental level (e.g., developmental milestones) o Evaluate impact of expected body image changes on client and family **Ante/Intra/Postpartum and Newborn Care** ■ **Provide prenatal care and education*** o Calculate expected delivery date o Check fetal heart rate during routine prenatal exams o Identify signs of potential prenatal complications ■ **Provide care and education to an antepartum client*** o Assess client's psychosocial response to pregnancy (e.g., support systems, perception of pregnancy, coping mechanisms) o Recognize cultural differences in childbearing practices ■ **Provide care and education to a client in labour*** o Identify, assess and refer a client in labour

Foundations of Practice	
37. Completes comprehensive health assessments of clients across the lifespan	**▪ Provide postpartum care and education*** ○ Assess client for symptoms of postpartum complications (e.g., hemorrhage, infection) ○ Assist client with performing/learning newborn care (e.g, feeding) ○ Provide discharge instructions (e.g., postpartum and newborn care) ○ Evaluate client's ability to care for the newborn **Health Promotion/Disease Prevention** **▪ Assess client about determinants of health and implement interventions*** ○ Identify risk factors for disease/illness (e.g., age, gender, ethnicity, lifestyle) **▪ Assess client's readiness to learn, learning preferences and barriers to learning*** **Health Screening** **▪ Perform preventative screening assessments (e.g., vision, hearing, cognitive, nutrition)*** ○ Apply knowledge of pathophysiology to health screening ○ Identify risk factors linked to ethnicity (e.g., hypertension, diabetes) ○ Perform health history/health and risk assessments (e.g., lifestyle, family and genetic history) ○ Use appropriate procedure and interviewing techniques when taking the client health history **High Risk Behaviours** **▪ Educate client about prevention and treatment of high-risk health behaviours (e.g., smoking cessation, safe sexual practice, needle exchange)*** ○ Assess client lifestyle practice risks that may impact health (e.g., excessive sun exposure, lack of regular exercise) **Lifestyle Choices** ○ Assess client's lifestyle choices ○ Assess client's attitudes/perceptions on sexuality ○ Assess client's need/desire for contraception **Self-Care** **▪ Assess client ability to manage care in home environment and plan care accordingly*** ○ Consider client self-care needs before developing or revising care plan **Techniques of Physical and Psychosocial Assessment** **▪ Perform comprehensive health assessments*** ○ Apply knowledge of nursing procedures and psychomotor skills to techniques of physical assessment ○ Choose physical assessment equipment and technique appropriate for the client (e.g., age of client, measurement of vital signs)

Foundations of Practice	
37. Completes comprehensive health assessments of clients across the lifespan	**Psychosocial Integrity** **Abuse/Neglect** ■ **Assess client for abuse or neglect and intervene*** ○ Identify risk factors for domestic, child, elder abuse/neglect and sexual abuse **Behavioural Interventions** ■ **Manage and support clients with emotional/behavioural issues*** ○ Assess client's appearance, mood and psychomotor behaviour and identify/respond to inappropriate/abnormal behaviour **Coping Mechanisms** ■ **Assess client's ability to cope with life changes and provide support*** ○ Assess client's support systems and available resources ○ Assess client's ability to adapt to temporary/permanent role changes ○ Assess client's reaction to a diagnosis of acute or chronic mental illness (e.g., rationalization, hopefulness, anger) ■ **Assist client to cope/adapt to stressful events and changes in health status*** ○ Identify situations which may necessitate role changes for a client (e.g., spouse with chronic illness, death of parent) **Crisis Intervention** ■ **Assess the potential for violence/aggression and use safety precautions*** ○ Identify the client in crisis **Cultural Awareness/Cultural Influences on Health** ■ **Incorporate client cultural practices and beliefs when planning and providing care*** ○ Assess the importance of client culture/ethnicity when planning/providing/evaluating care ○ Recognize cultural issues that may impact the client's understanding/acceptance of psychiatric diagnosis ○ Respect cultural background/practices of the client **End-of-Life Care** ■ **Provide end-of-life care to clients*** ○ Assess client's ability to cope with end-of-life interventions ○ Identify end-of-life needs of the client (e.g., financial concerns, fear, loss of control, role changes) ○ Recognize the need for and provide psychosocial support to the family/caregiver

Foundations of Practice	

37. Completes comprehensive health assessments of clients across the lifespan	**Family Dynamics**
	
	■ **Assess family dynamics to determine care plan***
	
	  ○ Assess barriers/stressors that impact family functioning (e.g., meeting client care needs, divorce)
	
	  ○ Assess parental techniques related to discipline
	
	Mental Health Concepts
	
	■ **Provide care and support to clients with acute and chronic mental health disorders***
	
	  ○ Recognize client use of defense mechanisms
	
	  ○ Assess client for alterations in mood, judgment, cognition and reasoning
	
	■ **Explore reasons for client non-adherence with treatment plan***
	
	  ○ Assess client adherence to treatment plan
	
	Religious and Spiritual Influences on Health
	
	  ○ Identify the emotional problems of client or client needs that are related to religious/spiritual beliefs (e.g., spiritual distress, conflict between recommended treatment and beliefs)
	
	  ○ Assess and plan interventions that meet the client's emotional and spiritual needs
	
	Stress Management
	
	■ **Recognize client stressors that affect care***
	
	■ **Recognize nonverbal cues to physical and/or psychological stressors***
	
	■ **Recognize health care provider stressors that affect client care***
	
	Substance Use and Other Disorders and Dependencies
	
	■ **Assess client for substance misuse, dependency, withdrawal or toxicities, and intervene***
	
	  ○ Assess client's reactions to the diagnosis/treatment of substance-related disorder

Foundations of Practice	

37. Completes comprehensive health assessments of clients across the lifespan	**Basic Care and Comfort**
	
	Assistive Devices
	
	■ **Educate and assist client to compensate for a physical or sensory impairment (e.g., assistive devices, positioning, compensatory techniques)***
	
	  o Assess the client for actual/potential difficulty with communication and speech/vision/hearing problems
	
	  o Assess the client's use of assistive devices (e.g., prosthetic limbs, hearing aid)
	
	Elimination
	
	■ **Assess client elimination and intervene***
	
	Mobility/Immobility
	
	■ **Apply, maintain, or remove orthopedic devices (e.g., traction, splints, braces)***
	
	  o Assess the client for mobility, gait, strength and motor skills
	
	■ **Perform skin assessment and/or implement measures to maintain skin integrity***
	
	  o Identify complications of immobility (e.g., skin breakdown, contractures)
	
	Non-Pharmacological Comfort Interventions
	
	■ **Assess client for pain and intervene***
	
	  o Assess the client's need for palliative care/symptom management or non-curative treatments
	
	Nutrition and Oral Hydration
	
	■ **Monitor the client's nutritional status***
	
	  o Assess client ability to eat (e.g., chew, swallow)
	
	  o Assess client for actual/potential specific food and medication interactions
	
	■ **Assess and maintain site care for client with enteral tubes***
	
	■ **Assess client intake and output and intervene***
	
	Personal Hygiene
	
	■ **Assess client ability to perform activities of daily living and intervene***
	
	  o Assess the client for personal hygiene habits/routine
	
	Rest and Sleep
	
	■ **Assess client sleep/rest pattern and intervene***

Foundations of Practice	
37. Completes comprehensive health assessments of clients across the lifespan	**Pharmacological and Parenteral Therapies** **Adverse Effects/Contraindications/Side Effects/Interactions** o Assess the client for actual or potential side effects and adverse effects of medications (e.g., prescribed, over-the-counter, herbal supplements, pre-existing condition) **Reduction of Risk Potential** **Changes/Abnormalities in Vital Signs** ■ **Assess and respond to changes and/or trends in client vital signs*** **Diagnostic Tests** ■ **Monitor the results of diagnostic testing and intervene *** o Compare client diagnostic findings with pre-test results **Laboratory Values** o Compare client laboratory values to normal laboratory values **Potential for Alterations in Body Systems** o Identify client potential for aspiration (e.g., feeding tube, sedation, swallowing difficulties) o Identify client potential for skin breakdown (e.g., immobility, nutritional status, incontinence) o Identify client with increased risk for insufficient vascular perfusion (e.g.,immobilized limb, post-surgery, diabetes) **Potential for Complications of Diagnostic Tests/Treatments/Procedures** ■ **Use precautions to prevent injury and/or complications associated with a procedure or diagnosis *** o Assess client for an abnormal response following a diagnostic test/procedure (e.g., dysrhythmia following cardiac catheterization) **System Specific Assessments** ■ **Perform focused assessments*** o Assess the client for abnormal peripheral pulses after a procedure or treatment o Assess the client for abnormal neurological status (e.g., level of consciousness, muscle strength, mobility) o Assess the client for peripheral edema o Assess the client for signs of hypoglycemia or hyperglycemia o Identify factors that result in delayed wound healing o Perform a risk assessment (e.g., sensory impairment, potential for falls, level of mobility, skin integrity) ■ **Recognize trends and changes in client condition and intervene***

Foundations of Practice	

37. Completes comprehensive health assessments of clients across the lifespan	**Physiological Adaptation**
	
	Alterations in Body Systems
	
	■ **Monitor and maintain devices and equipment used for drainage (e.g., surgical wound drains, chest tube suction, negative pressure wound therapy)***
	
	  o Assess tube drainage during the time the client has an alteration in body systems (e.g. amount, colour)
	
	Illness Management
	
	  o Assess adaptation of a client to health alteration, illness and/or disease
	
	  o Assess client for signs and symptoms of adverse effects of radiation therapy
	
	Unexpected Response to Therapies
	
	■ **Recognize signs and symptoms of client complications and intervene***
	
	  o Assess the client for unexpected adverse response to therapy (e.g, increased intracranial pressure, hemorrhage)

Collaborative Practice	

70. Advocates for the use of Indigenous health knowledge and healing practices in collaboration with the client	**Management of Care**
	
	Advocacy
	
	■ **Advocate for client rights and needs***
	
	  o Provide information on advocacy to staff members
	
	  o Act in the role of client advocate
	
	  o Use advocacy resources appropriately (e.g., social worker, chain of command, interpreter)
	
	Referrals
	
	■ **Assess the need for referrals/consults and obtain necessary orders***
	
	  o Identify community resources for the client (e.g., respite care, social services, shelters)
	
	Psychosocial Integrity
	
	Cultural Awareness/Cultural Influences on Health
	
	■ **Incorporate client cultural practices and beliefs when planning and providing care***
	
	  o Evaluate and document how client language needs were met
	
	  o Assess the importance of client culture/ethnicity when planning/ providing/evaluating care
	
	  o Recognize cultural issues that may impact the client's understanding/acceptance of psychiatric diagnosis
	
	  o Respect cultural background/practices of the client
	
	■ **Incorporate the use of Indigenous health knowledge and practices when planning and providing care to Indigenous clients***

Reference

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