



**NCSBN**  
Leading Regulatory Excellence

# **REx-PN™ Academic Workshop**

## **Webinar Series Part 2:**

### **Item Writing**



# Presenters

**Michele Glass, MS, RN | RN Test Development Associate II**

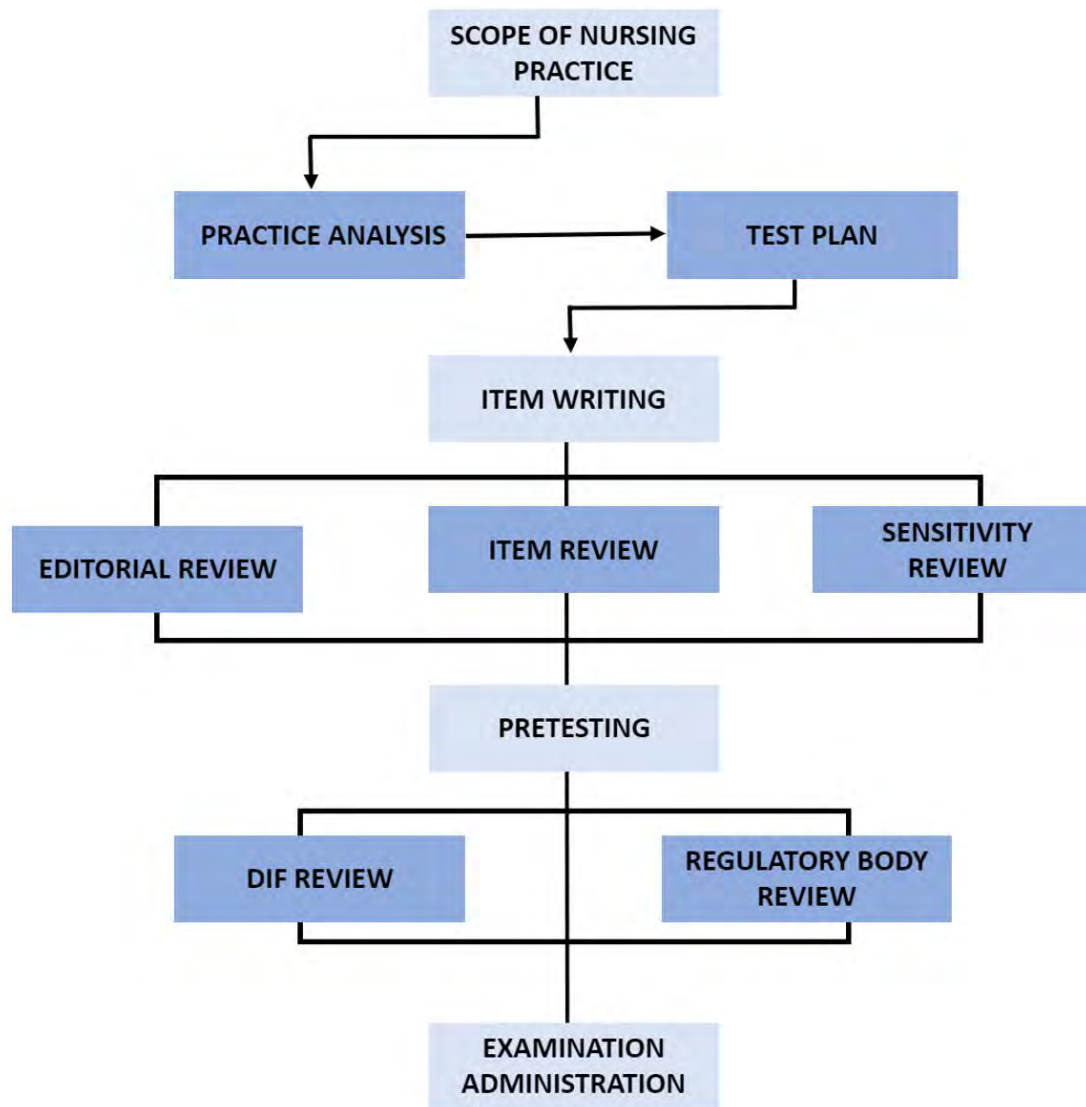
**Niki Yadav, MN, MSN, RN, FNP | RN Test Development Associate**

# Workshop Objectives

At the end of the REx-PN Academic Workshop webinar, the participant will be able to:

- ✓ Explain the steps of the item development process
- ✓ Identify REx-PN item types
- ✓ Apply principles of item writing using REx-PN style to enhance item writing skills
- ✓ Explain how to access available REx-PN publications and educational resources

# REx-PN Item Development Process



# REx-PN Item Development

# Item Development - Roles

## Item Writers

- Create the questions or “items” that are used on the REx-PN

## Item Reviewers

- Examine the items that are created by Item Writers

# Item Development - Item Writers

## Requirements

- Current, nursing license which is in good standing
- Current employment position of faculty teaching LPN/RPN nursing students

# Item Development – Item Reviewers

## Requirements

- Current, nursing license which is in good standing
- Current employment consists of providing direct client care in a clinical setting, being an LPN and working with LPN/RPN entry-level nurses



# Foundations of Item Writing

# Item Terminology

**STEM** The nurse is preparing a staff education program about myasthenia gravis. Which of the following should the nurse include as a treatment used for an exacerbation of myasthenia gravis?

## **RESPONSE OPTIONS**

(A) thyroidectomy

**DISTRACTOR**

(B) plasmapheresis

**KEY**

(C) chemotherapy

**DISTRACTOR**

(D) bisphosphonates

**DISTRACTOR**

# REx-PN Items Must Be

Linked to the  
test plan

Suitable for  
entry-level  
practice

Accurate

Current in  
nursing practice

Only one correct  
answer

*Unless multiple  
response*

# Item Construction Principles

- Clear item intent or objective
- Central idea identified in the stem
- Relevant and pertinent information provided
- Readability of item:
  - Information provided is concise; can be read and processed within a short amount of time
- Correct spelling, grammar and punctuation

# REx-PN Item Language Principles

- Language selected for items must be universal and support the assessment of one construct—**entry-level nursing knowledge**
- Language must be consistent for every examinee
- In order to achieve accurate, stable measurement, terminology used in exam items can have only one meaning

# Distractor Design

- Three distractors for each item
  - Unless multiple response item type
- Grammatically matches the stem
- Options are parallel and independent
- Avoid opposites
- Avoid “All of Above” or “None of Above”
- Key and/or distractors are not conspicuous





# Parallel Length of Responses

All options have similar text lengths

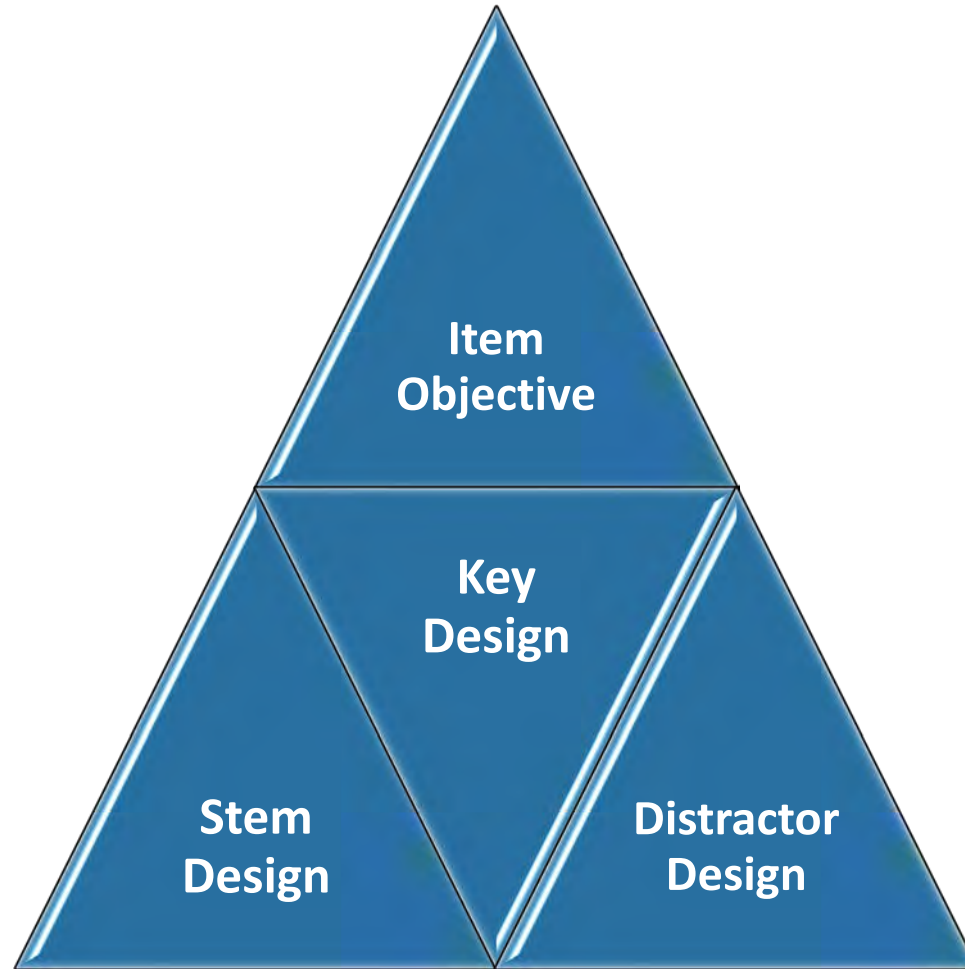
***OR***

Two pairs that are similar in length

1 & 2 are equal, 3 & 4 are equal

1. 
2. 
3. 
4. 

# A Well-Designed Item





# **REx-PN Review Processes and REx-PN Style**

# Editorial Review

- Clarity
- Grammar
- Punctuation
- Spelling
- Style



# REx-PN Style Principles

## Avoid

- Slang or idioms that may be confusing
- Words that may not be familiar to all groups
- All brand names
- Classifying clients by age or diagnosis
- Gender unless necessary to answer an item
- Negatively worded stems

# REx-PN Style Principles

## REx-PN Preferred Usage

**Generic** rather than **trade names**

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**Client** rather than **patient**

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**Nurse** rather than **you**

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**Unregulated Care Provider (UCP)** rather than  
**nurse aide/technician**

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# REx-PN Item Assumptions

In the REx-PN examination, it is assumed unless otherwise specified:

- Adult client
  - *Age or developmental stage will only be included when it is required to answer the item (pediatric clients, older adult)*
- Nurse has an order to carry out an intervention

# Sensitivity Criteria

**Avoid**

- **Stereotypes**
- **Assumptions**
- **Ethnocentrism and Elitism**
- **Inflammatory material**
- **Language**
- **Gender**

# Example Item

The male nurse is caring for a 40-year-old female client with a history of hypertension and diabetes who is taking newly prescribed Prinivil. Which of the following foods should she avoid while taking an ace inhibitor? **Select all that apply.**

1. lattes
2. apples
3. Tropicana orange juice
4. bananas
5. Nu-Salt Salt Substitute

# Example Item - Revised

The nurse is caring for a client who is taking a newly prescribed ace inhibitor medication. Which of the following foods should the client avoid while taking this medication? **Select all that apply.**

1. coffee
2. apples
3. oranges
4. bananas
5. salt-substitutes



# Example Item

You are observing a travel nurse who is caring for an adult male stroke patient who is receiving tube feeds. Which of the following actions by the travel nurse would require you to intervene?

1. Elevating the HOB to 35 degrees.
2. Replacing the formula q4h with fresh formula.
3. Measuring and then re-administering the residual gastric content.
4. Changing the tube feeding container and tubing q8h.

# Example Item - Revised

The nurse is observing a co-worker who is caring for a client who has ordered continuous enteral tube feedings. Which of the following actions by the co-worker would require the nurse to intervene?

1. Elevating the head of the client's bed to 35 degrees.
2. Replacing the formula every 4 hours with fresh formula.
3. Measuring and then re-administering the residual gastric content.
4. Changing the tube feeding container and tubing every 8 hours.

# REx-PN Item Types

# Standard and Alternate Item Formats

- **Standard Format** = multiple-choice items with four answer options and one answer key
- **Alternate Formats** = any format other than multiple-choice

# Alternate Item Types

- Multiple Response
- Fill-in-the-Blank Calculations
- Exhibits
- Graphic

Any item formats, including standard multiple-choice items, may include charts, tables or graphic images.

# Multiple Response

- Looks similar to a multiple-choice item but has five or six response options and could have more than one correct answer
- Instructions = **Select all that apply**
- No partial credit given

# Sample Multiple Response

The nurse is preparing to admit a client who has acute pulmonary tuberculosis (TB). Which of the following infection control precautions should the nurse implement? **Select all that apply.**

1. Wear non-sterile gloves.
2. Wear a protective gown.
3. Wear a particulate respirator mask.\*
4. Ensure client's meals are served on disposable dishes.
5. Place a surgical mask on the client when being transported.\*

# Fill-in-the-Blank Calculations

- Asks the graduate to perform a calculation
- A computer calculator is available throughout entire exam
- Type only number(s) as the answer
- Instructions = **Record your answer using**
  - a whole number
  - one decimal place
  - two decimal places





# Sample Fill-in-the-Blank Calculation

The nurse is caring for a client who is receiving prescribed ampicillin 1 gram, IV, in 50 ml of 5% dextrose in water, every 6 hours. How many ml/hr should the nurse set on the infusion pump to deliver the medication over 20 minutes? **Record your answer using a whole number.**

Answer: 150 ml/hr

# Exhibit

- Graduate is presented with a client scenario and exhibits (3)
- Graduate must click on each exhibit tab to view additional information
- Instructions = **Click the exhibit button for additional information**

# Sample Exhibit

The nurse is caring for a client who is reporting feeling anxious. Which of the following actions should the nurse take? Click on the exhibit button for additional client information.

1. Instruct the client to breathe into a paper bag.\*
2. Perform an electrocardiogram (ECG) for the client.
3. Administer oxygen via a nasal cannula.
4. Request an order for an opioid analgesic to be administered p.r.n.

# Vital Signs Exhibit Tab

Temperature	37.2° C
Pulse	105
Respirations	28
Blood pressure	100/80 mm Hg

# Progress Notes Exhibit Tab

Client reports feeling anxious and light-headed.

# Laboratory Results Exhibit Tab

## Laboratory Test

## Client Value

Arterial blood gas (ABG)

pH

7.5

PaO<sub>2</sub>

85 mm Hg

PaCO<sub>2</sub>

30 mm Hg

HCO<sub>3</sub>

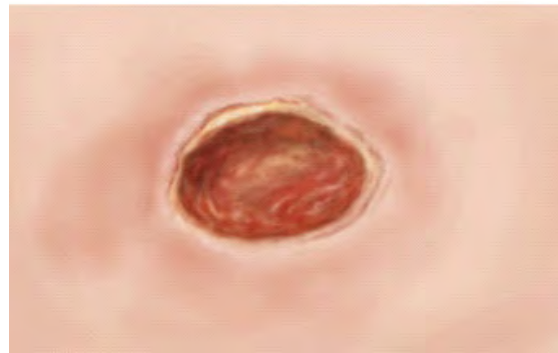
25 mmol/L

# Graphic

- Graduate will be presented with images
- Images can be in the stem or response options

# Sample Graphic Item

The nurse is planning care for a client who has the skin wound shown below. Which of the following interventions should the nurse include in the client's plan of care?



1. Irrigate the wound with mechanical flushing.\*
2. Massage the wound with each dressing change.
3. Dry the wound using a heat lamp on low setting.
4. Cleanse the wound with a mild antiseptic solution.



# Item Writing Practice

# Steps in Item Writing

1. Select a nursing concept.
  - Activity statement from Test Plan
2. Look up in references.
3. Write the stem.
4. Write the key.
5. Write the distractors.
6. Review the item.

# Developing an Item Stem

- A complete item stem should include:
  1. Scenario
  2. Client condition and descriptors
  3. Information requested (question)
  4. Additional directions (if needed)
- A stem can be either open-ended or closed

# Stem Examples

The nurse is caring for a client who has (client condition). Which of the following actions should the nurse take?

The nurse is caring for a client who has a prescription for (prescription/medication). How many mL should the nurse administer to the client with each dose? **Record your answer using a whole number.**

# Stem Examples

The nurse is teaching the client who has had (client procedure). Which of the following statements by the client indicates a correct understanding of the teaching?

The nurse is teaching a client about (client condition). Which of the following information should the nurse include?

# Let's Write a Multiple-Choice Item



# Sample Multiple-Choice Item

The nurse is caring for a client who had a cardiac catheterization 3 hours ago. Which of the following findings is **essential** for the nurse to follow-up?

1. Pulse, 101
2. Blood urea nitrogen (BUN), 8.21 mmol/L \*
3. Decrease in respiratory rate from 18 to 16 over the past one hour
4. Blood pressure increase from 103/68 mm Hg to 110/70 mm Hg over the past one hour

# Let's Write a Multiple-Choice Item

## Higher Order





# Converting Good Items to Higher Order Items

- Integrate two or more concepts into an item
- Use options that are close in content
- Distractors reflect common misconceptions
- Incorporate prioritization, such as multi-client scenarios
- Require interpretation rather than recall

# Sample Multiple-Choice Item

The nurse is caring for a client with a Clostridium Difficile infection. Which of the following infection control precautions should the nurse implement?

1. Droplet precautions
2. Contact precautions \*
3. Standard precautions
4. Airborne precautions

# Sample Multiple-Choice Item

## Higher Order

The nurse is caring for a client with a Clostridium Difficile infection. Which of the following infection control precautions should the nurse implement?

1. Hand hygiene and gloves
2. Hand hygiene, gloves and protective gown \*
3. Hand hygiene, protective gown and face shield
4. Hand hygiene, head covering, mask and gloves

# REx-PN Resources

# REx-PN Web Resources

REx-PN Test Plan

REx-PN Practice Analysis

REx-PN CAT Recording

REx-PN FAQs

NCSBN Learning Extension

- Test Development and Item Writing
- Assessment of Critical Thinking

<https://www.ncsbn.org/rex-pn.htm>

## NCLEX & Other Exams

[Application & Registration](#)[Before the Exam](#)[Exam Day](#)[After the Exam](#)[Testing Locations](#)[Test Plans](#)[Exam Statistics & Publications](#)[Exam Volunteer Opportunities](#)[Next Generation NCLEX Project](#)[NCLEX Research Opportunities](#)[NCLEX FAQs](#)[Exam Contacts](#)[NCLEX Member Resources](#)[REx-PN](#)

# Regulatory Exam - Practical Nurse (REx-PN)



Regulatory Exam - Practical Nurse

The REx-PN is a new Canadian Practical Nurse exam developed for the British Columbia College of Nursing Professionals (BCCNP) and the College of Nurses of Ontario (CNO).

BCCNP and CNO have partnered with NCSBN to develop the REx-PN. NCSBN is dedicated to developing psychometrically sound and legally defensible nurse licensure and certification examinations consistent with current practice.

**The REx-PN exam will launch in January 2022.**



## 2022 REx-PN Test Plan

EFFECTIVE JANUARY 4, 2022

The REx-PN test plan includes an in-depth overview of the content categories, details about the administration of the exam and REx-PN style item writing exercises.

[Download Publication](#)

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### RELATED PAGES

[REx-PN FAQs](#)

### RELATED RESOURCES

[British Columbia College of Nursing Professionals \(BCCNP\)](#)

[College of Nurses of Ontario \(CNO\)](#)

### RELATED VIDEOS



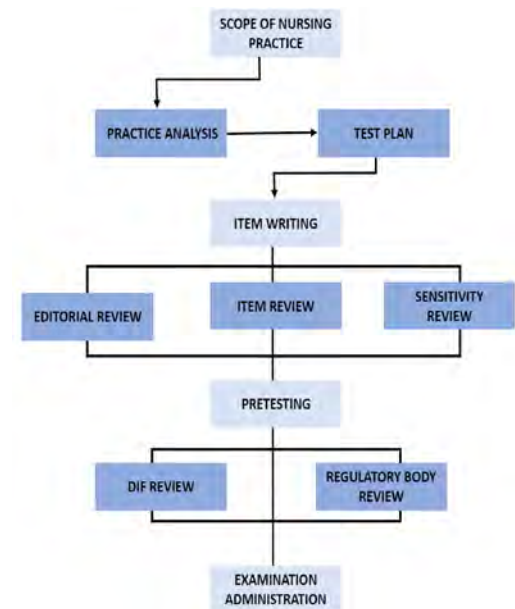
[REx-PN Using CAT](#)



[REx-PN: un Examen Adaptatif Informatisé](#)

# Summary

- Item development process consists of several detailed steps that are all equally important
- REx-PN exam consists of both standard and alternate item types
- Specific style principles of item writing exist to develop higher order items
- REx-PN educational resources and publications are available



QUESTIONS?



# **REx-PN Webinar Series Part 3**

**October 19, 2020 3:00-4:00 pm**



**THANK YOU!**