

**MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION**  
**MINISTRY OF SCIENCE, HIGHER EDUCATION AND INNOVATION OF THE KYRGYZ REPUBLIC**  
**Kyrgyz-Russian Slavic University**  
named after the first President of the Russian Federation B.N. Yeltsin  
**Department of Therapy No. 1 (Pediatrics and Dentistry)**


**FUND OF ASSESSMENT TOOLS (FAT)**  
for the discipline  
**NURSING**


Curriculum: 310501\_25\_1 Id in.plx  
Specialty: 560001 — General Medicine (for international students)  
Qualification: Doctor (Physician)  
Form of study: Full-time | Semester: 1 (Year 1, Semester 1) | Weeks: 18  
Total hours: 60 (classroom: 30 | independent work: 29.7)  
Form of assessment: Credit (pass/fail)

The Fund of Assessment Tools is designed to control students' knowledge in the field of study (specialty) PHYSICIAN (DOCTOR) in the discipline " PROFESSIONAL CYCLE Nursing "

The Fund of Assessment Tools was reviewed and approved at the meeting of the department of THERAPY-1 OF PEDIATRICS AND DENTAL SPECIALTIES

Protocol No. 1 dated 27.08.2024

Head of Department  
Therapy-1 of Pediatrics and Dental specialties \_\_  \_ Suranova G.Zh.

Executors  
Candidate of Medical Sciences, Associate Professor \_\_  \_ Suranova G.Zh

## 1. PASSPORT OF THE FUND OF ASSESSMENT TOOLS

### 1.1. Competency Assessed

The FAT ensures assessment of the following competency formed through the discipline 'Nursing' (curriculum 310501\_25\_1 Id in.plx, specialty 560001):

Code	Competency	Description	Assessment Tools
PC-3	Primary health care & nursing manipulations	Able to provide primary health care, carry out nursing manipulations and interventions, and care for patients with various pathologies. Know: principles of primary health care and nursing manipulation algorithms. Be able to: perform basic nursing manipulations. Own: practical skills of nursing care and patient safety measures.	Tests, situational tasks, practical skills assessment, boundary controls, credit

### 1.2. Structure of Assessment Tools and Control Stages

Assessment Tool	Control Type	Semester	Competency	RPD Topic/Section
Test tasks (current control)	Current	1	PC-3	Sections 1–2
Oral questions / quiz	Current	1	PC-3	Sections 1–2
Situational tasks	Current / Boundary	1	PC-3	Sections 1–2
Practical skills assessment	Current / Boundary	1	PC-3	Sections 1–2
Workbook tasks (SRS)	Current	1	PC-3	Sections 1–2
Report / Presentation (SRS)	Current	1	PC-3	Sections 1–2
Boundary Control No. 1 (topic 1.10)	Boundary	1	PC-3	Section 1 (topics 1.1–1.10)
Boundary Control No. 2 (topic 2.10)	Boundary	1	PC-3	Section 2 (topics 2.1–2.10)
Final Credit (pass/fail)	Intermediate	1	PC-3	Sections 1–2

## 2. TEST TASKS

---

Test tasks are used for current and boundary control (PC-3). Correct answer is in bold green (printed versions use a separate answer-key sheet). 1 point per correct answer; 20 questions per sitting; time: 20 minutes.

### Boundary Control No. 1 — Section 1: Organisation, Documentation, Infection Control, Medicines

---

**The PRIMARY goal of the nursing process in a therapeutic department is:**

- A) To perform medical orders without independent assessment
- B) To systematically assess patient needs and plan, implement, and evaluate individualised nursing care**
- C) To replace the physician in clinical decision-making
- D) To document vital signs only
- E) To manage the ward in the absence of the physician

**Which of the following describes the CORRECT structure of a therapeutic department?**

- A) Only ward rooms and a nurses' station
- B) Ward rooms, treatment room, procedure room, nurses' station, utility/slucice room, bathroom, and head nurse's office**
- C) Only a procedure room and pharmacy
- D) Outpatient clinic only
- E) Resuscitation unit and operating theatre

**Medical documentation in a therapeutic ward includes all of the following EXCEPT:**

- A) In-patient medical record (case history)
- B) Nursing vital signs and observation chart
- C) Medication administration record
- D) Hospital financial accounts ledger**
- E) Fluid balance (diuresis) chart

**The CORRECT sequence of medical device reprocessing after use is:**

- A) Sterilisation → disinfection → pre-sterilisation cleaning
- B) Disinfection → sterilisation → pre-sterilisation cleaning
- C) Pre-sterilisation cleaning → disinfection → sterilisation**
- D) Rinsing with water → direct sterilisation
- E) Disinfection only is sufficient for all reusable instruments

**Standard precautions for infection control must be applied to:**

- A) Only patients with confirmed infections
- B) Only patients in single isolation rooms
- C) All patients at all times, regardless of diagnosis or infection status**
- D) Only when the nurse has visible skin wounds
- E) Only during invasive procedures

**The correct working concentration of chloramine-B solution for wet cleaning of therapeutic ward premises is:**

- A) 0.01%
- B) 0.1%
- C) 0.5%**
- D) 1%
- E) 5%

**A nurse discovers a needlestick injury after drawing blood from a hepatitis B-positive patient. The FIRST action is:**

- A) Continue working and observe for symptoms
- B) Apply a plaster and report at the end of the shift
- C) Allow the wound to bleed briefly, wash thoroughly with soap and running water, treat with antiseptic, report immediately, document, and initiate post-exposure protocol**
- D) Apply a tourniquet above the injury site
- E) Squeeze out blood, then apply iodine directly and ignore further steps

**Which drug administration route provides the FASTEST onset of action in an emergency?**

- A) Oral (per os)
- B) Rectal (per rectum)
- C) Subcutaneous
- D) Intramuscular
- E) Intravenous**

**Sterilisation is defined as the COMPLETE destruction of:**

- A) All vegetative bacteria only
- B) All viruses and bacteria but not spores
- C) All microorganisms including bacterial spores and viruses**
- D) Pathogenic bacteria only
- E) Fungi only

**Post-injection complications include all of the following EXCEPT:**

- A) Infiltrate at injection site
- B) Post-injection abscess
- C) Air embolism
- D) Haematoma
- E) Generalised urticaria from the injection technique alone (not the drug)**

## **Boundary Control No. 2 — Section 2: Body Mechanics, Feeding, Specimen Collection, Instrumental Preparation**

**Correct body mechanics principles for moving a bedridden patient up in bed include:**

- A) Bend the back with straight legs; pull from the head of the bed
- B) Stand close to the bed, feet shoulder-width apart, bend knees, keep back straight, and use leg muscles**
- C) Always move the patient alone regardless of their weight
- D) Lift with arms fully extended away from the body
- E) Pull the patient by the arms or ankles

**The Fowler's position (head of bed elevated 45–60°) is PRIMARILY used for patients with:**

- A) Hypovolaemic shock
- B) Spinal cord injury
- C) Dyspnoea, acute left ventricular failure, or pulmonary oedema**
- D) Hypotension
- E) Preparation for spinal anaesthesia

**Diet No. 5 (according to Pevzner) is prescribed for patients with:**

- A) Peptic ulcer disease in the acute phase
- B) Type 2 diabetes mellitus
- C) Diseases of the liver, gallbladder, and biliary tract**
- D) Chronic renal failure
- E) Cardiovascular disease with oedema

**The CORRECT technique for female urinary catheterisation includes:**

- A) Clean technique with non-sterile gloves
- B) Strict aseptic technique: sterile gloves, sterile catheter, antiseptic cleansing of the urethral meatus before insertion**
- C) No special preparation if the catheter is pre-packaged
- D) Only a physician may perform this procedure
- E) Insertion without lubrication to reduce infection risk

**Before a gastric lavage, absolute contraindications include:**

- A) Suspected drug overdose
- B) Ingestion of strong acids or alkalis (corrosive substances)**
- C) Acute food poisoning within 2 hours
- D) Patient reluctance
- E) Mild nausea without vomiting

**The correct instruction for collecting a midstream urine specimen for general urinalysis is:**

- A) Collect the entire urine output including the first and last stream
- B) Collect first stream only
- C) Perform external genital hygiene, discard the first 10–15 ml, collect the middle portion (30–50 ml) into a clean container**
- D) Collect immediately after a meal for best accuracy
- E) No special hygiene is required for routine urinalysis

**Preparation of a patient for abdominal ultrasound includes:**

- A) Normal diet the day before; no other preparation needed

**B) Fasting for 6–8 hours; gas-reducing diet 2–3 days prior (no legumes, cabbage, carbonated drinks); full bladder for pelvic views**

- C) Cleansing enema the morning of the scan
- D) 2 litres of water immediately before the scan
- E) High-fibre diet for 3 days before the procedure

**When collecting sputum for bacteriological examination, the patient should:**

- A) Collect saliva into any container
- B) Rinse the mouth with water, then cough deeply and expectorate into a sterile wide-mouth container in the morning before eating or taking medications**
- C) Collect the sample after a full meal
- D) Refrigerate the sample at  $-20^{\circ}\text{C}$  for 48 hours
- E) Collect several samples from the same session in the same container

**Preparation for intravenous urography (IVP) includes:**

- A) Normal diet; no preparation required
- B) Check for iodine/contrast allergy; NPO for 6–8 hours before; bowel preparation the evening before; IV access established**
- C) Full bladder before the procedure
- D) Administration of a diuretic 30 minutes before
- E) High-fluid intake the morning of the procedure

**A patient on IV infusion develops sudden pain, swelling, and pallor at the infusion site. The nurse's FIRST action is:**

- A) Slow the infusion rate and continue
- B) Stop the infusion immediately, remove the cannula, apply a warm compress, notify the physician, and document the event (infiltration/phlebitis)**
- C) Add heparin to the infusion bag
- D) Elevate the infusion bag higher
- E) Apply a cold compress and continue the infusion

**The Zimnitsky test for urine collection requires the patient to:**

- A) Collect one random urine sample
- B) Discard the 06:00 void, then collect 8 separate 3-hourly portions (every 3 h) over 24 hours into labelled containers**
- C) Collect all urine for 24 h in one container
- D) Collect only morning urine for 3 consecutive days
- E) Collect only the first morning void on 3 separate days

**Passive (horizontal) positioning of a patient in bed for prevention of aspiration is CONTRAINDICATED in patients with:**

- A) Orthopaedic fractures of the lower limbs
- B) Nausea, vomiting, impaired swallowing, or decreased level of consciousness**
- C) Post-operative abdominal surgery
- D) Hypertensive patients with normal consciousness
- E) Anaemia

**Pressure ulcers (bedsores) develop PRIMARILY due to:**

- A) Excessive physical activity
- B) Prolonged pressure on bony prominences combined with moisture, friction, and shear forces in immobile patients**
- C) High dietary protein intake
- D) Frequent position changes
- E) IV infusion complications

**Care of a body cavity drain (e.g., pleural or abdominal) performed by the nurse includes:**

- A) Flushing the drain with tap water daily
- B) Monitoring and recording drainage volume, colour, and character; maintaining patency; aseptic dressing changes; securing the drain to prevent dislodgement; reporting changes to the physician**
- C) Clamping the drain whenever the patient moves
- D) Removing and reinserting the drain every shift
- E) No special care is needed between physician visits

**When preparing a patient for fibre-optic gastroscopy (FGDS/EGDS), the nurse instructs the patient to:**

- A) Eat a light meal 2 hours before the procedure
- B) Fast for at least 8 hours; refrain from smoking on the day; remove dentures before the procedure; be informed about local pharyngeal anaesthesia**
- C) Drink 500 ml of water 1 hour before
- D) Take a proton pump inhibitor 30 minutes before
- E) Perform a cleansing enema on the morning of the procedure

### 3. SITUATIONAL TASKS

Situational tasks assess 'Be Able' and 'Own' levels of PC-3. Used at practical classes, boundary controls, and final credit. Graded per model answer criteria (levels III–IV, see Section 8).

#### Task 1. Infection Control — Hepatitis B Prevention

A ward nurse is preparing to draw blood from a patient newly admitted with suspected viral hepatitis B. Before starting, a first-year student assisting her asks: 'What precautions should we take?' The nurse notices that the student is not wearing gloves and is about to pick up the needle without any protective equipment.

#### Questions:

1. List ALL personal protective equipment (PPE) required for this procedure.
2. Describe the correct hand hygiene steps before donning gloves.
3. What disinfection measures should be applied to the work surface and equipment after the procedure?
4. What documentation is required for a blood-drawing procedure in a patient with hepatitis?
5. What action should be taken if a needlestick injury occurs during the procedure?

#### Model Answer:

1. Required PPE: sterile/clean disposable gloves; fluid-resistant apron or gown; surgical mask (if splash risk); safety goggles or face shield (when splash of blood is likely). Single-use gloves are mandatory; double-gloving is recommended with known infectious material.
2. Hand hygiene: remove rings and watch; wet hands with water; apply soap; perform 6-step WHO technique (palm to palm, back of hands, interlaced fingers, rotational thumb, fingertips); rinse for minimum 20–40 seconds; dry with single-use towel; use towel to turn off tap.
3. Disinfection after procedure: all surfaces contaminated with blood → wipe with 0.5% chloramine-B or 70% alcohol; used equipment (tourniquet, adapter) → soak in disinfectant solution; sharps immediately into puncture-proof sharps container (do not recap); discard gloves and PPE in medical waste bag.
4. Documentation: record in the blood collection log (patient name, date, time, tube type, nurse's name); note in the nursing chart; label all tubes correctly before leaving the patient's bedside.
5. Needlestick injury protocol: allow brief free bleeding; wash with soap and water  $\geq 2$ –3 min; apply 70% alcohol or antiseptic; do NOT squeeze or suck; report to head nurse/department head immediately; complete incident form; baseline serology from both parties (with consent); physician evaluates need for hepatitis B immunoglobulin and/or accelerated HBV vaccination.

#### Task 2. Disinfection and Sterilisation — Device Processing

After a patient's intravenous catheterisation and gastric tube placement, the nurse collects the used reusable instruments for reprocessing. A new healthcare assistant asks her to explain the correct steps for instrument decontamination.

**Questions:**

6. Name the three obligatory stages of medical device reprocessing in correct order.
7. Describe pre-sterilisation cleaning (PSC): what is it and how is it performed?
8. What is the azopyram test and what is it used for?
9. Describe the autoclave sterilisation method: parameters and packaging.
10. How should sterile instruments be stored, and how long is the sterility validity period for different packaging types?

**Model Answer:**

6. Three stages in order: (1) Disinfection; (2) Pre-sterilisation cleaning (PSC); (3) Sterilisation.
7. PSC: the process of removing blood, protein residue, drugs, and other contaminants from instrument surfaces. Steps: rinse under running water for 0.5 min; soak in detergent-disinfectant solution for 15 min; scrub each item with a brush; rinse with running water 5 min; rinse with distilled water 1 min; dry.
8. Azopyram test: a quality control test for PSC. A 1% azopyram solution (equal parts azopyram and 3% hydrogen peroxide) is applied to the instrument surface. A violet/purple colour within 1 minute indicates residual blood contamination → the item must be re-cleaned. No colour change = passed.
9. Autoclave sterilisation: 132 °C at 2 atm for 20 minutes (standard items); 120 °C at 1.1 atm for 45 minutes (thermolabile items). Packaging: double-layer cotton cloth, Kraft paper, or special sterilisation pouches. Date, time, and autoclave cycle are marked on each package.
10. Storage: in a sterile box (bix) without filter — 3 days; bix with filter — 20 days; single-layer Kraft paper — 3 days; double-layer Kraft paper — 20 days; sealed sterilisation pouch — up to 12 months (manufacturer-specified). Store in clean, dry, dust-free cabinets.

**Task 3. Medicines — IV Infusion Care**

Patient B., 55 years old, is receiving an IV infusion of 0.9% NaCl 500 ml at a rate of 40 drops/min. 30 minutes after the infusion started, the patient calls the nurse. She reports pain, burning, and swelling at the infusion site. The area around the cannula appears pale and swollen.

**Questions:**

11. What complication has occurred? What is the pathophysiology?
12. Describe the nurse's immediate actions step by step.
13. How should the nurse document this event?
14. What measures prevent this complication?
15. When must the nurse notify the physician, and what information should she provide?

**Model Answer:**

11. Complication: IV infiltration (extravasation of IV fluid into subcutaneous tissue). Mechanism: the IV cannula has dislodged from the vein lumen, or the vein wall is perforated; fluid infuses into surrounding tissues instead of the bloodstream; causes local tissue oedema, pressure, and pain.
12. Immediate actions: (1) Stop the infusion immediately — clamp the IV line; (2) Do NOT flush; (3) Remove the cannula while applying gentle pressure with a dry sterile swab;

- (4) Elevate the affected limb; (5) Apply a warm compress (unless cytotoxic drug — then cold); (6) Inspect the site and measure the area of swelling; (7) Notify the physician; (8) Establish new IV access at a different site if continuing infusion is prescribed.
13. Documentation: time infusion started and time infiltration detected; infusion fluid and rate; patient complaint (pain, burning, swelling); site description (location, size of swelling, skin colour); actions taken and times; physician notification time and response; new IV site established.
  14. Prevention: select the largest, most visible vein appropriate to the infusion; use the shortest, smallest suitable cannula; secure cannula firmly with transparent dressing; check the site every 30–60 min for patency; flush with 2–5 ml saline before starting infusion; instruct patient to report any discomfort; avoid antecubital and wrist veins for prolonged infusions.
  15. Notify the physician: immediately when infiltration is confirmed, especially if: irritant/vesicant drug was infusing; area of swelling >3 cm; signs of skin necrosis or blistering; patient has diabetes, peripheral vascular disease, or impaired consciousness. Provide: drug name and concentration infused, estimated volume extravasated, time detected, site assessment findings.

#### Task 4. Patient Preparation — Multiple Examinations

Patient K., 62 years old, is admitted to the therapeutic ward with suspected cholecystitis and urinary tract infection. The physician orders the following examinations for tomorrow: (1) abdominal and pelvic ultrasound; (2) intravenous urography (IVP); (3) colonoscopy; (4) general urinalysis; (5) urine culture.

#### Questions:

16. What patient preparation is required for abdominal ultrasound?
17. Describe the preparation for intravenous urography, including the nurse's safety check.
18. What preparation is required for colonoscopy?
19. How should urine be collected for general urinalysis and urine culture (note the differences)?
20. How should all specimens be labelled and transported to the laboratory?

#### Model Answer:

16. Ultrasound preparation: gas-reducing diet for 2–3 days (exclude legumes, cabbage, carbonated drinks, black bread); fast for 6–8 hours before scan; no smoking on the morning; for pelvic ultrasound — drink 1 L of non-carbonated water 1 hour before and do not urinate (full bladder needed).
17. IVP preparation: (a) SAFETY CHECK — ask about allergy to iodine-containing contrast media; note renal function (creatinine); (b) Low-residue diet and gas-reducing diet 2–3 days before; (c) Light meal the evening before; NPO from midnight; (d) Bowel preparation: Bisacodyl or senna the evening before ± cleansing enema morning of procedure; (e) Establish peripheral IV access; (f) Ensure pre-medication (if contrast allergy risk — antihistamine/corticosteroid as prescribed).
18. Colonoscopy preparation: clear liquid diet for 24–48 hours before; bowel cleansing with osmotic laxative (e.g., macrogol/polyethylene glycol solution — typically 3–4 L the day before or split dose); NPO from midnight; no iron supplements for 7 days; patient must be informed about the procedure and consent obtained.

19. General urinalysis: thorough external genital hygiene; discard first stream; collect midstream 30–50 ml in a CLEAN container; deliver within 1–2 hours. Urine culture: identical collection technique; however, must use a STERILE container; strict mid-stream technique; deliver within 30 minutes or refrigerate at 4 °C for max 2 hours. Key difference: sterility of container and processing time.
20. Labelling: each container — patient full name, ward/bed number, date, time of collection, type of specimen, test requested. Accompany with completed laboratory referral form (physician's order). Transport in a sealed sample carrier; maintain cold chain for culture samples. Never mix specimens or mislabel — this is a patient safety issue.

### Task 5. Nursing Manipulations — Basic Patient Care

Patient S., 78 years old, has been bedridden for 2 weeks following a hip replacement. During the morning round, the nurse notices early stage I pressure ulcer changes over the sacrum (skin redness that does not blanch on pressure). The patient is incontinent and has poor nutritional status.

#### Questions:

21. Classify the pressure ulcer stage and describe the risk factors present in this patient.
22. Describe the complete morning care routine the nurse should perform for this patient.
23. Detail the skin care and positioning protocol to prevent pressure ulcer progression.
24. What nutritional interventions can the nurse implement or recommend?
25. How should the nurse document pressure ulcer status, and what tools can be used for risk assessment?

#### Model Answer:

21. Classification: Stage I pressure ulcer (non-blanchable erythema of intact skin). Risk factors present: immobility (bedridden), incontinence (moisture damage), advanced age (78 years — reduced skin elasticity and tissue perfusion), poor nutritional status (protein deficiency impairs tissue repair), hip surgery (pain limits repositioning).
22. Morning care routine: (a) Oral hygiene — clean teeth/dentures, rinse mouth; (b) Eye care — wipe from inner to outer canthus with dampened gauze (separate for each eye); (c) Facial hygiene — wash face and neck; (d) Skin inspection — examine all bony prominences (sacrum, heels, elbows, occipital area); (e) Partial bed bath — wash body with warm water and pH-neutral soap, dry thoroughly; (f) Apply barrier cream to incontinence-affected areas; (g) Change soiled linen promptly; (h) Comb hair; (i) Reposition to relieve sacral pressure.
23. Skin care and positioning: (1) Reposition every 2 hours — sacrum → right lateral (30°) → supine → left lateral (30°), document each repositioning; (2) Use foam wedge pillows to achieve 30° tilt rather than 90° lateral; (3) Never massage reddened areas (increases tissue damage); (4) Keep skin dry and clean; apply barrier cream to perianal and sacral areas; (5) Use anti-decubitus mattress (dynamic/static) if available; (6) Protect heels by elevating with pillow under calves; (7) Minimise shear — use draw-sheet for repositioning, not dragging.
24. Nutritional interventions: (a) Ensure adequate protein intake — minimum 1.2–1.5 g/kg/day; (b) Ensure adequate caloric intake for wound healing; (c) Encourage oral fluids (minimum 1.5–2 L/day unless contraindicated); (d) Report poor nutritional status to physician/dietitian for nutritional assessment; (e) Assist with feeding if the patient cannot feed independently; (f) Consider nutritional supplementation (e.g., oral protein supplements) as prescribed.

25. Documentation: record pressure ulcer location, size (length × width), stage, surrounding skin condition, wound characteristics, and care provided at each assessment. Use validated risk assessment tools: Braden Scale (assesses sensory perception, moisture, activity, mobility, nutrition, friction/shear — score ≤18 = at risk) or Norton Scale. Reassess every shift. Photograph with patient consent to document progression or healing.
-

## 4. PRACTICAL SKILLS ASSESSMENT

Practical skills assess the 'Own' level of PC-3. Performed on simulators, phantoms, or demonstrated step-by-step during practical classes and boundary controls.

### 4.1. Required Skills List — Section 1 (Assessed at Boundary Control No. 1)

- Blood pressure measurement: auscultatory method (Korotkoff technique)
- Pulse measurement (radial artery, 1 minute) and respiratory rate counting
- Body temperature measurement (axillary); thermometer disinfection and storage rules
- Six-step hand hygiene: routine handwashing and hygienic antisepsis (WHO protocol)
- Donning and doffing personal protective equipment: gloves, gown, mask
- Subcutaneous injection technique (on phantom): insulin/heparin administration
- Intramuscular injection technique (on phantom): upper outer gluteal quadrant
- Peripheral IV infusion set-up and cannula site monitoring
- Preparation of disinfectant solutions: 1% chloramine-B from dry powder
- Azopyram test for pre-sterilisation cleaning quality control
- Anthropometry: height, weight, BMI calculation
- Patient transport: wheelchair and stretcher technique

### 4.2. Required Skills List — Section 2 (Assessed at Boundary Control No. 2)

- Patient repositioning: supine, Fowler's (45°), lateral (30° tilt), prone positioning
- Pressure ulcer prevention: skin inspection technique, positioning schedule, barrier cream
- Bed bath for bedridden patient: full sequence including oral and eye care
- Bed linen change for a bedridden patient (occupied bed)
- Gastric lavage technique (on phantom): siphon method, step-by-step
- Cleansing enema administration (on phantom)
- Rectal gas-outlet tube insertion and management (on phantom)
- Female urinary catheterisation (on phantom): strict aseptic technique
- Care of drainage system: observation, recording, aseptic dressing change
- Urine specimen collection instructions: general analysis, Nechiporenko, Zimnitsky, culture
- Blood specimen collection (venipuncture on phantom): biochemistry, general analysis
- Sputum specimen collection instructions: bacteriology, general examination
- Patient preparation instructions: abdominal ultrasound, FGDS, IVP, colonoscopy
- Faeces specimen collection instructions: general analysis, occult blood, parasitology
- Oxygen therapy: nasal cannula and simple mask setup and monitoring

### 4.3. Skill Checklist: Gastric Lavage (Example Checklist — on Phantom)

Assessment Criterion	Max Pts	Score
States indications and contraindications correctly before starting	6	

Prepares equipment: tube (Ch36–40), lubricant, 10–12 L warm water 36–37 °C, funnel/syringe, basin, gloves, apron	8	
Washes hands; dons gloves and apron	4	
Measures tube length (earlobe–nose–xiphoid ~45–55 cm) and marks it	6	
Lubricates tube tip with Vaseline or glycerine	4	
Inserts tube through mouth, asks phantom to 'swallow'; correct technique	8	
Confirms placement by auscultating air insufflation over epigastrium	6	
Instils 300–500 ml warm water via funnel or syringe	8	
Lowers funnel below stomach level for siphon drainage	8	
Repeats cycle until effluent is clear	8	
Collects first portion separately (for toxicology/analysis) and labels correctly	6	
Removes tube smoothly; patient care after procedure	6	
Disposes of waste per infectious waste protocol	6	
Completes documentation: time, volumes instilled/drained, patient response	6	
States possible complications and how to prevent/manage them	4	
TOTAL	100	

#### 4.4. Practical Skills Grading Scale

Score %	Grade	Criterion	Credit
90–100	Excellent	All steps correct, safe, in proper sequence, without prompting	Pass
75–89	Good	Minor omissions; no safety violations	Pass
60–74	Satisfactory	Errors corrected after single prompting; no critical safety failure	Pass
<60	Unsatisfactory	Critical safety errors or incomplete procedure	Fail — repeat

## 5. BOUNDARY CONTROLS

### 5.1. Boundary Control No. 1 — Section 1 (Topic 1.10: Use of Medicines)

Scope: topics 1.1–1.10 — organisation of nursing, medical documentation, infection control, disinfection, sterilisation, and drug administration.

Format: 10 test questions (from Section 2 of this FAT, items 1–10) + 1 situational task + 1 practical skill. Time: 45 minutes.

### 5.2. Boundary Control No. 2 — Section 2 (Topic 2.10: Laboratory Methods Preparation)

Scope: topics 2.1–2.10 — body mechanics, patient feeding and positioning, catheterisation, GI manipulations, drainage care, instrumental and laboratory preparation.

Format: 10 test questions (from Section 2 of this FAT, items 11–25, select 10) + 1 situational task + 1 practical skill. Time: 45 minutes.

### 5.3. Boundary Control Grading

Component	Max Points	Pass Threshold	Notes
Test questions (10 items)	20	12 (60%)	2 points per correct answer
Situational task	40	24 (60%)	Per model answer — levels III–IV
Practical skill (checklist)	40	24 (60%)	Per checklist in Section 4
TOTAL	100	60	All three components must reach threshold

## 6. QUESTIONS FOR THE FINAL CREDIT

The credit (pass/fail) includes: (1) one theoretical question; (2) one situational task; (3) one practical skill demonstration. Students who score >60 cumulative points may receive credit without an oral examination.

### Section 1 — Organisation, Documentation, Infection Control, Medicines

1. Organisation of nursing in therapy: goals, objectives, and structure of a therapeutic department, polyclinic, FAP, and health centre of an industrial enterprise.
2. The nursing process: five stages, their content, and documentation.
3. Philosophy and theoretical foundations of nursing: conceptual models (Henderson, Orem).
4. Nursing deontology and professional ethics: principles of ethical behaviour, confidentiality, and communication with patients and colleagues.
5. Medical documentation in a therapeutic ward: types of documents, rules for completion, legal responsibility.
6. Infection control in healthcare facilities: chain of infection, standard and transmission-based precautions, orders of the Ministry of Health of the KR and RF.
7. Prevention of viral hepatitis B and C in healthcare settings: routes of transmission, vaccination, post-exposure protocol.
8. HIV/AIDS: transmission routes, standard precautions, post-exposure prophylaxis, patient care principles.
9. Disinfection: definition, levels (low, intermediate, high), methods, preparation of working solutions (chloramine-B, alcohol, hydrogen peroxide).
10. Sterilisation: definition, methods (autoclave, dry-heat oven, chemical), sterility indicators, packaging, and storage validity periods.
11. Pre-sterilisation cleaning (PSC): stages, technique, azopyram and phenolphthalein quality control tests.
12. Processing of medical devices: regulatory documents (orders of MoH KR and RF), stages, documentation.
13. Use of medicines: types, storage (temperature requirements, controlled substances), accounting, and distribution in a ward.
14. Routes and methods of drug administration: oral, sublingual, rectal, inhalation, subcutaneous, intramuscular, intravenous — technique, indications, nursing responsibilities.
15. Post-injection complications: types (infiltrate, abscess, air embolism, haematoma, nerve injury, oil embolism) — causes, prevention, and first aid.

### Section 2 — Body Mechanics, Feeding, Manipulations, Specimen and Instrumental Preparation

1. Biomechanics of patient movement: principles of safe patient handling; methods for repositioning a bedridden patient (up in bed, side to side, bed to chair); pressure ulcer prevention.
2. Patient positioning in bed: types (supine, Fowler's, Sim's, lateral, prone) — indications, correct technique, supportive devices.
3. General patient care for bedridden patients: morning toilet, bed bath, oral and eye care, hair washing in bed, changing bed linen (occupied bed).

4. Prevention and treatment of pressure ulcers: stages, risk assessment (Braden scale), repositioning schedule, skin care, barrier products, nutrition.
5. Therapeutic nutrition in a hospital: Pevzner diet numbers 1, 2, 5, 7, 8, 9, 10, 15 — indications and principles. Organisation of patient feeding. Enteral and parenteral nutrition.
6. Urinary catheterisation: indications, types of catheters, female technique (strict aseptic), complications, and catheter care. Bladder lavage through epicycstostomy.
7. Gastric lavage: indications, contraindications, equipment, siphon technique, complications, first-portion sampling for analysis.
8. Enemas: types (cleansing, siphon, hypertonic, oil, therapeutic, nutritional) — indications, technique, complications.
9. Rectal gas-outlet tube: indications, insertion technique, maximum duration, removal.
10. Care of drainage systems of body cavities (pleural, abdominal): monitoring output, aseptic dressing changes, patency maintenance, documentation, and when to notify the physician.
11. Patient preparation for instrumental examinations: FGDS, colonoscopy, sigmoidoscopy, ECG, echocardiography — preparation algorithm.
12. Patient preparation for X-ray examinations: plain abdominal X-ray, intravenous urography (IVP), retrograde urography, cholecystography — preparation and contrast allergy safety check.
13. Patient preparation for ultrasound examinations: abdominal organs, kidneys, pelvic organs — dietary preparation, fasting, fluid loading.
14. Specimen collection — blood: venipuncture technique for general analysis, biochemistry, serology, bacteriology (sterile technique, correct tubes).
15. Specimen collection — urine: general analysis, Nechiporenko, Zimnitsky, culture — differences in collection technique, containers, timing, and transport.
16. Specimen collection — sputum and bronchial washings: general examination and bacteriology — collection time, technique, containers.
17. Specimen collection — faeces: general analysis, occult blood test (Gregersen reaction), coprological examination, parasitology, bacteriology — dietary preparation and collection technique.
18. Puncture examinations of cavities and organs: pleural puncture (thoracocentesis) and abdominal paracentesis — nurse's role in preparation, patient positioning, and post-procedure care.

### Credit Grading — Knowledge Level System

Level	Task Type	Points	Criterion	Outcome
I (Know)	Test questions	Up to 10 pts	Correct answers to all test questions	Pass / Fail
II (Know)	Theoretical question	10–20 pts	Correctly formulates basic concepts and definitions	Pass / Fail
III (Be Able, Own)	Situational task	20–25 pts	Correct identification of the problem and recommendations	Pass / Fail
IV (Be Able, Own)	Practical task	25–30 pts	Full and correct performance of the practical task	Pass / Fail

Pass threshold:  $\geq 60$  cumulative points. Failure at any component below the threshold requires retake within the departmental schedule.

## 7. REPORT AND PRESENTATION TOPICS (SRS)

Topics are selected from the list or agreed with the instructor. Requirements: up to 15 slides; report 10 min + discussion 5 min. Format: Microsoft PowerPoint; title slide must include topic, student name, and group number.

### 7.1. Topic List

1. The nursing process: five stages — theory and application in a therapeutic ward.
2. Philosophy and models of nursing: Henderson's model vs Orem's self-care model.
3. Nursing deontology: communication skills, ethical dilemmas, patient rights.
4. Infection control and prevention of healthcare-associated infections (HAIs): current evidence.
5. Standard precautions in clinical practice: safe injection practices and sharps safety.
6. Viral hepatitis B and C in healthcare workers: prevention and post-exposure prophylaxis.
7. HIV/AIDS: infection control in a therapeutic ward and psychological support of patients.
8. Sterilisation methods: autoclave vs dry-heat oven — comparison and quality control.
9. Pressure ulcer prevention: Braden scale and evidence-based nursing protocols.
10. Therapeutic nutrition: Pevzner diets in clinical practice — current relevance.
11. Enteral and parenteral nutrition: nursing care and complication prevention.
12. Safe drug administration: preventing medication errors — nursing responsibilities.
13. Bladder catheterisation: prevention of catheter-associated urinary tract infections (CAUTI).
14. Patient preparation for colonoscopy: nursing care and patient education.
15. Drainage system care: nursing management of pleural and abdominal drains.

### 7.2. Presentation Evaluation Criteria

Criterion	Max Points	Score
Relevance and correspondence to the assigned topic	15	
Scientific accuracy and use of current evidence-based sources	20	
Logical structure and clarity of presentation	20	
Quality of visual design (slides, figures, tables)	15	
Command of material; quality of answers to audience questions	20	
Adherence to time limits and formatting requirements	10	
<b>TOTAL</b>	<b>100</b>	

## 8. CUMULATIVE GRADING SYSTEM

The final credit result is formed cumulatively across the semester. Two boundary controls (No. 1 and No. 2) replace a single CrTO. Students scoring >60 cumulative points from current and boundary control may receive credit without an oral examination at the instructor's discretion.

Form of Control	Weight %	Max Points	Pass Threshold
Current control (attendance, oral quiz, workbook tasks)	15	15	9
Boundary Control No. 1 (test + task + skill — Section 1)	20	20	12
Boundary Control No. 2 (test + task + skill — Section 2)	20	20	12
Practical skills assessment (2 skills during semester)	15	15	9
Report / Presentation (SRS)	10	10	6
Final Credit (theory + task + skill)	20	20	12
TOTAL	100	100	60

Note: a student who fails to reach the threshold in any boundary control must retake that control within 10 working days per the departmental schedule.

### Competency Achievement Matrix (PC-3)

PC-3 Level	Indicator	Assessment Tool	Minimum Score
Know	Principles of primary health care and nursing manipulation algorithms	Test questions (Boundary Controls 1 & 2)	60% of test score
Be Able	Perform primary health care and basic nursing manipulations	Situational tasks	60% of task score
Own	Practical skills of nursing care and patient safety	Practical skill checklists	60% of checklist score