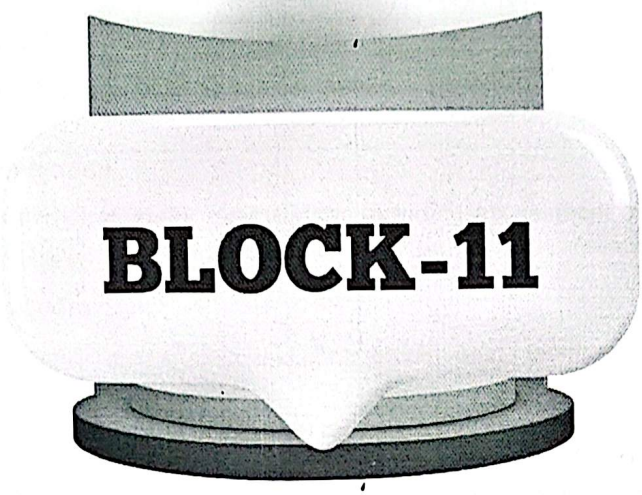

MODULE NO:27 NEUROSCIENCES-II	
Code	**Skills/Task**
CFRC 4-NS2-001	**History taking** **Take and document** history from patients presenting with stroke, epilepsy, headache/migraine, Parkinson's disease, or meningitis/encephalitis.
CFRC 4-NS2-002	**GCS Level** **Assess and record** the patient's level of consciousness using the Glasgow Coma Scale.
CFRC 4-NS2-003	**Cranial Nerves** **Examine** the function of all 12 cranial nerves.
CFRC 4-NS2-004	**Motor examination** **Perform** a complete motor examination, including assessment of muscle strength, tone, bulk, reflexes, and coordination.
CFRC 4-NS2-005	**Sensory examination** **Perform** sensory examination including touch, pain, temperature, vibration, and proprioception.
CFRC 4-NS2-006	**Cerebellar function tests** **Examine** cerebellar function through coordination tests, balance, and fine motor tasks (e.g., finger-to-nose, heel-to-shin, Romberg test).
CFRC 4-NS2-007	**Gait Patterns** **Observe and assess** different gait patterns (normal, hemiplegic, Parkinsonian, ataxic) and posture abnormalities, and document findings.
CFRC 4-NS2-008	**Deep tendon reflexes** **Assess** deep tendon reflexes, superficial reflexes, and pathological reflexes.
CFRC 4-NS2-009	**Meningeal signs** **Examine** a patient of meningitis for meningeal signs, including neck stiffness, Kernig's sign, and Brudzinski's sign.
CFRC 4-	**Higher cortical functions**

NS2-010	**Assess** higher cortical functions including language, memory, attention, calculation, praxis, and neglect.
CFRC 4-NS2-011	**Lumbar puncture** **Observe and narrate** the steps of lumbar puncture procedure, including patient positioning, landmark identification, needle insertion, and CSF collection with proper handling and labeling with indications, contraindications, potential complications, and precautions for lumbar puncture.(See Annexure I)

ANNEXURE-I

Collection, Transport and Storage of CSF Specimen for Culture & Sensitivity

Collection of CSF Specimen

Cerebrospinal fluid must be collected by an experienced medical officer. It must be collected aseptically to prevent organisms being introduced into the central nervous system. The fluid is usually collected from the arachnoid space. A sterile wide-bore needle is inserted between the fourth and fifth lumbar vertebrae and the CSF is allowed to drip into a dry sterile container. A ventricular puncture is sometimes performed to collect CSF from infants.

Advise the laboratory before performing a lumbar puncture so that staff are prepared to receive and examine the specimen *immediately*.

1. Take two sterile, dry, screw-capped containers and label one No. 1 (first sample collected, to be used for culture), and the other No. 2 (second sample collected, to be used for other investigations).
2. Collect about 1 ml of CSF in container No. 1 and about 2–3 ml in container No. 2.
3. *Immediately* deliver the samples with a request form to the laboratory.

Note: Collection of CSF from patient with suspected trypanosomiasis
When the CSF is to be examined for trypanosomes, it is usually collected after treatment to kill the trypanosomes in the blood has been started. This will avoid the accidental introduction of the parasites into the central nervous system.

Transport of CSF to the Microbiology Laboratory

1. Transport CSF specimen immediately to the Microbiology laboratory within half an hour of collection.
2. Maintain the temperature of the specimen at room temperature (20-25^{o}C) and maximum at 37^{o}C
3. Use a sterile, leak proof container with tight fitting lid to prevent leakage and contamination.
4. Never Refrigerate/Freeze the specimen

Note: A delay in examining CSF reduces the chances of isolating a pathogen. It will also result in a lower cell count due to WBCs being lyzed, and to a falsely low glucose value due to glycolysis. When trypanosomes are present, they will be difficult to find because they are rapidly lyzed once the CSF has been withdrawn.

MODULE NO:28 PSYCHIATRY & BEHAVIORAL SCIENCES	
Code	**Skills/Task**
CFRC 4-PsyBhS-001	**Take** a detailed psychiatric history from patients with common psychiatric disorders. (Depressive disorder, bipolar affective disorder, schizophrenia, generalized anxiety disorder, panic disorder, obsessive–compulsive disorder (OCD), alcoholism, ADHD, autism, personality disorders, acute suicidal ideation/attempt, acute aggression or violent behavior) **Apply** the non-pharmacological interventions in clinical settings (information care, breaking bad news, crisis intervention, disaster management, conflict resolution, progressive muscle relaxation & breathing exercises, and informed consent). **Provide** differential diagnosis based on history, MSE, and relevant investigations. **Formulate** a preliminary diagnosis and outline management plan.
CFRC 4-PsyBhS-002	**Mental state examination** **Perform** mental state examination (MSE), assessing appearance, behavior, speech, mood, thought, perception, cognition, insight, and judgment. Interpret findings of MSE in common psychiatric conditions.
CFRC 4-PsyBhS-003	**Suicide risk assessment** **Conduct** suicide risk assessment. **Propose** immediate management steps.
CFRC 4-PsyBhS-004	**Aggression/violence risk assessment** **Identify and assess** risk of aggression or violence in psychiatric patients. **Propose** immediate management steps.
CFRC 4-PsyBhS-005	**Rapport building** **Establish** rapport with patients and their families in a respectful, non-judgmental manner. **Demonstrate** empathetic listening and supportive communication in sensitive situations.
CFRC 4-PsyBhS-006	**Demonstrate** respect for patient autonomy and confidentiality in psychiatric practice. **Apply** ethical principles in managing patients with impaired capacity or in involuntary treatment settings.

MODULE NO:29 RENAL-II	
Code	**Skills/Task**
CFRC 4-Re2-001	**Take and record** detailed history of patients with nephrotic syndrome, CKD, UTI, hematuria, urinary retention, BPH, or uroljthiasis.
CFRC 4-Re2-002	**Examination of kidneys and urinary bladder** **Inspect** for abdominal distension, edema, and skin changes. **Palpate** kidneys and bladder for size, tenderness, and masses. **Percuss** kidneys and bladder for enlargement or fluid. **Auscultate** renal arteries (bruits).
CFRC 4-Re2-003	**Urine sample collection, storage, and transport** **Narrate** proper techniques for urine sample collection, including midstream clean-catch urine, catheterized urine samples, and pediatric urine bag collection, and correctly label and transport the specimens. (See Annexure II)
CFRC 4-Re2-004	**Renal imaging** • **Interpret** ultrasound report for hydronephrosis, stones, polycystic kidneys. • **Interpret** CT findings for obstruction, calculi, renal masses.
CFRC 4-Re2-005	**Fluid balance** **Measure and interpret** fluid balance: urine input/output monitoring.
CFRC 4-Re2-006	**Urinary catheterization** **Observe/Assist** in urinary catheterization. Identify indications, contraindications, and precautions (for adult and pediatric patients).
CFRC 4-Re2-007	**Counsel** patients regarding disease, management plan, lifestyle modifications, treatment adherence.

Annexure II

Collection, Transport and Storage of Urine Specimen for Routine Analysis, Culture & Sensitivity

Patient Instructions for Urine Specimen Collection

Before Collection

- Wash your hands thoroughly with soap and water.
- Use the sterile urine container with intact seal provided by the laboratory.
- Do not touch the inside of the container or lid.
- If you are menstruating, inform the laboratory staff before collection.

For Midstream clean-catch Urine Specimen

For Female Patients

- Wash your hands.
- Clean the genital area from front to back using clean water or antiseptic wipes (if provided).
- Spread the labia apart with one hand.
- Begin urinating into the toilet.
- After a few seconds, without stopping the flow, place the sterile container in the stream to collect the midstream portion.
- Remove the container before finishing urination.
- Close the lid tightly and ensure it does not leak.

For Male Patients

- Wash your hands.
- Retract the foreskin (if present) and clean the tip of the penis with clean water or antiseptic wipes.
- Begin urinating into the toilet.
- After a few seconds, place the sterile container in the urine stream to collect the midstream portion.
- Remove the container before finishing urination.
- Close the lid tightly.

Labeling and Documentation

- Each container must be clearly labeled with:
- Patient's full name and Identification number
- Date and time of collection
- Type of specimen (e.g., midstream, catheter, 24-hour)
- The accompanying laboratory requisition form should include test requests, clinical information, and collector's name.

Catheter Collections

Urine samples from indwelling catheters (i.e. foley catheters) are not recommended, since it is not possible to differentiate the bacteria that have colonized the catheter from potential pathogens. Urine samples should not be obtained from urine bags. Foley catheter tips are unsuitable for culture because they are invariably contaminated with urethral or colonizing organisms.

Suprapubic Aspiration

Suprapubic aspiration is reserved exclusively for neonates and small children. Suprapubic aspiration is indicated in the following conditions:

1. For infants, young children, or unconscious patients who cannot provide a clean -catch specimen
2. When catheterization is contraindicated or unsuccessful

Transport of Urine Specimen to the Laboratory

- The specimen should be transported to the laboratory as soon as possible, preferably within 1 hour of collection. Since Urine itself serves as a good medium for multiplication of bacteria, early transport of urine specimen to the laboratory is very important to ensure accuracy and reliability of tests results
- Delay can lead to false positive results for infection or increased bacterial counts that do not reflect the true condition of the patient.
- Use a sterile, clean, leak-proof, and properly labeled container.
- All specimens should be placed in a sealed biohazard transport bag with a separate pocket for the requisition form.
- Avoid exposure to direct sunlight or heat, as this can alter chemical and microbiological results.
- If Immediate Transport is not possible, refrigerate the specimen at 2–8°C to prevent bacterial overgrowth and chemical changes.
- Do not freeze the sample unless specifically required for certain tests.
- For urine culture, if a delay of more than 1 hour is expected, use a preservative, such as boric acid (0.1g/10ml) in the collection container to maintain specimen integrity for up to 24 hours.

Transport conditions for Specific Tests

Test Type	Transport Condition	Maximum Delay Before Processing
Routine Urinalysis	Room temp (≤1 hr) or 2–8°C	Within 2 hours
Urine Culture	2–8°C (or with boric acid 0.1g/10ml)	Within 24 hours

Precautions

- Handle all specimens as potentially infectious and follow biosafety precautions.
- Do not accept leaking, unlabeled, or contaminated specimens.

- Maintain a proper chain of custody if required for medicolegal or research samples.

MODULE NO:30 EYE & ENT-II	
Code	NOSE
	Skills/Task
CFRC 4-Nose-001	• **History taking** **Obtain** a focused history from patients presenting with nasal complaints • **Clinical examination/management skills** • **Perform** external examination of nose and paranasal sinuses by inspection and palpation. • **Assess** nasal patency and olfaction. • **Perform** anterior and posterior rhinoscopy and identify normal and abnormal findings. • **Identify** nasal septum deviations, turbinate hypertrophy, polyps, and foreign bodies. • **Observe and assist** in nasal packing for epistaxis. • **Observe and assist** in foreign body removal from nose. • **Identify** nasal fractures and their immediate and definite management. • **Identify** red flag symptoms requiring urgent referral (proptosis and sudden vision changes, high fever with sinusitis, massive epistaxis). • **Observe and assist** in surgery of nasal polypectomy, septoplasty, and FESS. • **Counselling** • Explain common nasal procedures to patients in simple language. • Take informed consent. • Counsel patients on preventive measures. • **Medicolegal Aspects of ENT trauma** • Perform medicolegal examination and documentation of ear, nose, and throat injuries, correlating clinical findings with possible mechanisms and medicolegal implications. (See Annexure III)

Code	Skills/Task
	EYE-II

CFRC 4-eye2-001	• **Eye examination skills and procedures**
	  • **Perform** confrontation test to assess the visual field.
	  • **Perform** digital tonometry.
	  • **Perform** pupillary light reflexes (direct and consensual, swinging light reflex.
	• **Operation theatre exposure**
	  • **Apply** eye bandage, eye pad, and protective shield correctly
	  • **Perform** eye washing in chemical injuries.
	  • **Observe** steps of cataract and other surgeries
	  • **Demonstrate** correct patient positioning and draping in ophthalmic surgery.
	  • **Demonstrate** the correct technique for scrubbing, gowning, and gloving.
	• **Ophthalmic Emergencies**
	  • **Perform** rapid eye examination in emergency cases like acute congestive glaucoma.
	• **Exposure to Ophthalmic lasers procedures**
	Observe YAG Laser, Argon Laser
	• **Observe/Perform** retinoscopy to élicit and interpret the reflex for determining refractive error.

ANNEXURE-III

Medico-Legal Examination Protocol

1. Authority for Examination

- Patient may be: Brought by Police under relevant provisions of CrPC for medico-legal examination, Self-reporting patient /by relative presenting directly to Emergency.
- In self-reporting cases: Immediate intimation to Police is mandatory.
- Life-saving treatment always takes precedence over medico-legal formalities.

2. Consent

- Written informed consent must be obtained: From patient if conscious and oriented, from legal guardian if patient is unconscious, minor, mentally incapacitated.
- *Consent is implied in emergencies where delay threatens life.*

3. Jurisdiction

Examination should preferably be conducted within the notified medico-legal jurisdiction of the hospital.

- Jurisdiction is secondary to life-saving management.
- If outside jurisdiction: Examination and treatment should proceed, Jurisdictional objection may be mentioned in remarks.

4. Identification of Patient

- Confirm identity through CNIC / B-Form, Hospital registration slip, Police papers (if brought by police). Note: name, age, gender, father's name, address. Record two permanent identification marks, if possible.

5. Biodata: Name, age (exact / approximate), gender, occupation, address, contact number, police station & FIR number (if applicable).

6. History (Alleged)

Record in patient's own words: Date and time of alleged incident, place of occurrence, manner of injury (assault / accident / fall / blast etc.), number of assailants, type of weapon(s) used. any history of: loss of consciousness, bleeding from nose/ear/mouth, vomiting. past medical or surgical history (if relevant)
Avoid conclusions; write "*alleged history as narrated by patient*".

7.Perform General Physical Examination:

i. **Examination of Clothes (If Applicable):** Presence or absence noted, describe: type of clothing, blood stains (fresh/dried), tears or cuts. clothes should be: preserved, sealed, handed over to police with memo.

ii. **Examination of Injuries (General Principles)**

Each injury should be described separately; anatomical location, type (abrasion, bruise, laceration, fracture, burn), size (length × breadth × depth), shape and margins, fresh or healing, bleeding present or absent, swelling / tenderness, open or closed, any signs of repair/healing, photographs with scale should be taken where possible.

iii. **Nature of Injury (As Per Law)** Mention name of injury (not PPC section). If Kept Under Observation (KUO): Clearly mention reasons (awaiting radiology / specialist opinion).

iv. **Kind of Weapon:** Opinion based on: Injury pattern, History, Examination findings. Weapon may be: Blunt, Sharp-edged, Firearm, Explosive (blast), Chemical (corrosive). Mention: Direct evidence (Primary injury pattern), Indirect evidence (radiology, specialist input).

v. **Duration of Injuries**

Give probable duration based on: freshness, healing changes, clot formation, radiological findings. Mention as: "within hours","within 24 hours", "more than ___ days"

vi. **Fabricated / Self-Inflicted Injuries:** Opinion should be given only if strongly suggestive, with reasons: Easily accessible body parts, Uniform, superficial injuries, Absence of corresponding damage to clothes, Inconsistent history.

Avoid labelling unless evidence is convincing.

Specific Maxillofacial & ENT Injuries

A. Nasal Bone Fracture: swelling, tenderness, epistaxis, deformity, crepitus, x-ray / CT scan, displaced or non-displaced, direction of force, probable duration, ENT / radiology opinion.

B. **Tympanic Membrane Rupture**

- Cause: slap, blast injury, pointed object.
- Otoscopic findings
- ENT / Audiologist opinion: Conductive or sensorineural hearing loss, Temporary or permanent deafness

C. Dental Injuries: number of teeth involved, exact anatomical position, fractured / avulsed / dislocated, associated injuries: gums, lips, tongue, buccal mucosa, weapon usually blunt. Referral: Dental / Odontologist, ENT if required.

D. **Mandible / Maxilla Fracture:** With or without teeth involvement, swelling, tenderness, malocclusion, restricted movements, displaced or undisplaced. Imaging: X-ray, CT scan, ENT / Maxillofacial / Neuro-surgery opinion. Rule out base of skull fracture, especially in penetrating oral injuries.
Investigations: X-ray, CT scan, Audiometry (if indicated), Laboratory tests (if required)

Final Medico-Legal Opinion: Nature of injuries, Probable weapon, Probable duration, K/UO or final opinion, whether injuries are: Accidental, Assaulted, Self-inflicted (with reasons, if applicable).

✓ Key Reminder;

- Never delay treatment for paperwork
- Never mention PPC sections
- Avoid legal conclusions

- Document clearly and objectively
- Always seek senior / consultant opinion when in doubt