

STATION 4: PHYSICAL EXAMINATION – MARKING SCHEME

Abdominal.

Item	Marks
Introduction	1
Consent	1
Exposure	1
Inspection	8
Position of patient Position of the candidate Shape and symmetry Movement with respiration Umbilical position Therapeutic marks Vascular markings Hernial orifices	
Palpation	5
Position of the candidate Inquiries about pain <i>Liver span</i> Light palpation Deep palpation Bi-manual palpation	
Percussion	2
Liver span — <i>Fluid thrill & shifting dullness.</i>	
Auscultation	2
Presence Renal bruit — <i>Aortic</i>	
Total	20

*Serum Aspartate
Bilirubin
Prothrombin*

*AST = Aspartate
Transaminase*

*Serum Glutamic
Oxaloacetic
Transaminase*

*ASAT = Aspartate amino
transferase*

ALT = Alanine trans---

ALP = Alkaline phosph

*Gamma glutamyl trans ---
SGGT*

PHYSICAL EXAMINATION STATION - DAY 1- EXAMINER

Introduce the patient by name and tell the candidate to perform a general examination of the patient while giving a running commentary.

We shall use an actual patient.

Patient will have at least one positive finding: edema, pallor, jaundice

Marking scheme

- GIVE A MARK FOR CANDIDATES FLUENCE AND FLOW OF THE RUNNING COMMENTARY

General Examination

		Well done	average	Poor
1	Introduction	1	0.5	0
2	Approach to the patient	1	0.5	0
3	Explains procedure	1	0.5	0
4	Obtains consent	1	0	0
5	BP	2	1	0
6	Pulse rate	2	1	0
7	Respiratory Rate	2	1	0
8	Temperature	2	1	0
9	Pallor	1	0	0
10	Jaundice	1	0	0
11	Oedema	1	0	0
12	Lymphadenopathy	1	0	0
13	Cyanosis	1	0	0
14	Wasting	1	0	0
15	Dehydration -mucous membranes	1	0	0
16	Dehydration- skin turgor	1	0	0

miners

Examine the respiratory system of the patient

Item		
Introduction		
Consent		
Exposure		
Inspection	<p>Respiratory rate</p> <p>Flaring of alae nasae</p> <p>Use of accessory muscles <i>Fraser</i></p> <p>Chest in-drawing</p> <p>Chest shape and symmetry</p> <p>Signs of trauma/marks</p> <p>Distended veins</p> <p>Chest tube(side)</p>	<p><i>slightly protruded chest</i></p> <p><i>PIGGEON</i></p> <p><i>Protrusion</i></p> <p><i>Pectus carinatum = keel-shaped</i></p> <p><i>Excavatum = funnel chest</i></p> <p><i>chest deformities → results in fibrotic rigidity of chest</i></p> <p><i>Compression of internal organs</i></p> <p>PECTUS DEFORMITIES.</p> <p><i>= Pigeon = breast bone pushed outwards</i></p> <p><i>= Funnel shaped (excavatum) concave</i></p> <p>CARINATUM = PIGEON</p> <p>EXCAVATUM = FUNNEL</p>
Palpation	<p>Chest expansion</p> <p>Tracheal position</p> <p>Apex beat</p> <p>Chest tenderness</p> <p>Absence/presence of subcutaneous emphysema</p> <p>Tactile fremitus</p>	4
Percussion	<p>Dullness</p> <p>Tympanicity</p> <p>Percussion tenderness</p> <p>Liver dullness</p>	3
Auscultation	<p>Breath sound-normal vesicular or added sounds</p> <p>Vocal resonance</p>	2
What are the types of normal breath sounds?	<p>Vesicular</p> <p>Bronchial</p>	1
What abnormal sounds may one hear on auscultation and give one cause for each.	<p>Bronchial sounds</p> <p>Crackles/ Crepitation -</p> <p>Rhonchi/wheezes -</p> <p>Pleural rub -</p>	2

VIVA MARKING SCHEME

Thyrotoxic storm

- **Supportive**
 - ABC's
 - Manage fever, hydration
- Consult Endocrinologist early
- **Start antithyroid treatment**
 - PTU or Carbomazole
 - Dexamethasone – to inhibit hormone release from the thyroid and reduce the peripheral conversion of thyroxine to tri-iodothyronine
- **Treat heart failure**
- **Start beta-blockade** - If there is no pulmonary edema
- **Thromboprophylaxis**

Warfarin overdose

- If INR is > 1.5 with major bleeding or rapid reversal for surgery is needed
 - Stop warfarin
 - Give vitamin K 5 mg IV
 - If there is life-threatening bleeding (e.g. intracranial hemorrhage), give vitamin K 10 mg IV plus prothrombin complex concentrate 50 IU/kg IV
 - Recheck INR after 4 h
 - In other circumstances, give fresh frozen plasma 1 L (15 ml/kg) IV; repeat 6-hourly until INR is < 1.5 and bleeding has stopped
 - Discuss management with a hematologist
- If INR is > 8 with no bleeding or minor bleeding
 - Stop warfarin
 - If there is minor bleeding or if INR is > 15 (> 12 in patients over 70), and there is no mechanical prosthetic valve give vitamin K 0.5 mg IV plus fresh frozen plasma 1 L IV
 - If the patient is at increased risk of bleeding or if INR is 12–15 in patients under 70, give vitamin K 0.5 mg IV
 - Repeat dose of vitamin K if INR remains > 5 after 24 h
 - Discuss management with a Hematologist
- If INR is 6–8 with no bleeding or minor bleeding
 - Stop warfarin; restart when INR is < 5
- If INR is < 6 but > 0.5 units above the target value with no bleeding
 - Reduce dose or stop warfarin; restart when INR is < 5

Sickle cell painful crisis

- **Consult hematologist**
- **Relieve the pain**
- **Prevent/ treat hypoxemia**
- **Prevent / treat dehydration**
- **Exclude/ treat infection**
- **Physiotherapy**
- **Blood transfusion**

Acute blood transfusion reaction

- **Stop the transfusion**, but leave the intravenous line attached
- The bag containing the transfused blood or packed cells, along with all attached labels, should not be discarded, as repeat typing and cross-matching of this unit by the blood bank will be required
- Maintain the patient's airway, blood pressure, and heart rate
- Begin an infusion of normal saline immediately to initiate a diuresis and avoid hypotension
 - Avoid the use of Ringer's lactate solution; its content of calcium may initiate clotting of any blood remaining in the intravenous line
 - Avoid dextrose-containing solutions; the dextrose may hemolyze any of the remaining red cells in the line.
- From the other arm, obtain a sample for a direct antiglobulin test, plasma free hemoglobin, and repeat blood typing and cross-match; Obtain a urine sample for hemoglobin testing
- Alert the blood bank immediately, and a search for clerical error should be instituted
- If there is any suggestion that an acute hemolytic transfusion reaction (AHTR) has occurred (eg, clerical mistake, hypotension, pink plasma or urine), then generous fluid replacement with saline (100 to 200 mL/hour) to

- PEP regimen – preferred regimen in adults is tenofovir(TDF) + lamivudine(3TC) + lopinavir/ritonavir(LPV/r) in standard doses; healthcare workers with occupational exposure who cannot tolerate LPV/r can be given 2 drugs (TDF+ 3TC) and AZT can be used instead of TDF
- Duration of PEP is 28 days
- Follow-up HIV testing at 3 and 6 months after exposure
- Continued counseling and support

Acute bacterial meningitis

- Stabilize airway, breathing, circulation
- **Empiric antibiotic therapy, IV, high dose** – Vancomycin plus cefotaxime or ceftriaxone started after CSF sample obtained, change antibiotics based on culture results
- **Adjunctive steroids - dexamethasone** 10 mg IV before or with the first dose of antibiotic therapy and continue dexamethasone 10 mg 6-hourly IV for 4 days if CSF shows gram-positive diplococci, or if blood/CSF cultures are positive for *Streptococcus pneumoniae*
- In patients with septic shock, give low-dose steroid (hydrocortisone 50 mg 6-hourly IV + fludrocortisone 50 µg daily IV)
- Fluid balance
- Monitor CVP and urine output if patient is oliguric or if plasma creatinine is >200 µmol/l
- DVT prophylaxis with stockings and LWH heparin
- Prophylaxis against gastric stress ulceration with PPIs
- Fits - Prophylactic anticonvulsant therapy not indicated

Acute dysentery

- **Adequate fluid and electrolyte** replacement and maintenance
- None to moderate hypovolemia, treat with oral rehydration salts (ORS)
- Severe hypovolemia — intravenous fluids Ringer's lactate or Ringer's lactate with 5 percent dextrose are preferred, but normal saline can also be used. Normal saline is less preferable because it does not contain potassium to replace losses nor a base to correct acidosis.
- **Antibiotic therapy** - promptly with an antimicrobial that is effective against *Shigellae* **ciprofloxacin**; antibiotics reduce the duration of diarrhea and fever in infections caused by *Shigella*; If amebic dysentery due to *E. histolytica* is suspected based on stool microscopy, **metronidazole** is the usual treatment
- Continuous provision of nutritious food; small meals provided frequently, as soon as the patient is able to tolerate

Diabetic ketoacidosis

- **Admit to intensive care unit** or high-dependency unit; monitor BP, CVP and urine output monitoring
- **Fluid resuscitation**
- **Reduction in the plasma glucose concentration to normal**
- **Replenishment of electrolyte losses - potassium**
- Identification and treatment of the underlying cause

Acute hepatic failure

- **Monitoring and general care**
 - Head up
 - GCS check, if low - intubate
 - RBS checks
 - O₂
 - FFP, correct coagulopathy
- **Manage complications**
- **Cerebral edema**- Give mannitol
- **Hypotension**- Correct hypovolemia with blood or 4.5% human albumin solution;
- **Oliguria/renal failure**- Correct hypovolemia
- **Hypoglycemia**- Give glucose 10%
- **Coagulopathy**—Give vitamin K 10 mg IV daily, platelet transfusion if count <50 X 10⁹/L; fresh frozen plasma only if there is active bleeding
- **Gastric stress Prophylaxis**
- **Infection**- Daily culture of blood, sputum and urine; Early treatment of presumed infection with broad-spectrum antibiotic therapy: discuss with microbiologist: Consider antifungal therapy if fever with negative blood cultures

support a urine output above 100 to 200 mL/hour should be initiated immediately, in an attempt to prevent the development of acute oliguric renal failure

- If there has been massive hemolysis and clinical or laboratory signs of DIC, cautious and early heparinization (10 units/kg per hour) for the next 12 to 24 hours may be of value
- A vasopressor, such as low-dose dopamine, may be required
- If massive intravascular hemolysis has already occurred, hyperkalemia is likely, and cardiac monitoring and acute hemodialysis may be required
- Monitor the patient's renal function and coagulation profile (eg, prothrombin time, partial thromboplastin time, fibrinogen, platelet count) frequently

Acute septic arthritis

- Adequate and timely drainage of the infected synovial fluid, send joint fluid aspirate for culture
- Administration of appropriate empiric antimicrobial therapy – vancomycin plus a third generation cephalosporin (ceftriaxone, ceftazidime or cefotaxime); review antibiotic after culture result
- Initial antibiotic choices must be empirical, based on the sensitivity pattern of the pathogens of the community. Consider the rise of resistance among potential bacteria when choosing an initial antibiotic regimen.

Joint drainage

- needle aspiration (single or multiple) for most peripheral joints,
- arthroscopic drainage preferred for knee, shoulder, and wrist infections, because of easier irrigation and better visualization of the joint
- arthrotomy (open surgical drainage) preferred for hip infections
- Immobilization of the joint to control pain with rapid mobilization to prevent contractures and promote optimal nutrition to the articular cartilage
- Manage pain with analgesia

Acute respiratory failure

- Maintain patent airway
- Increase inspired oxygen concentration if needed to achieve target arterial oxygen saturation >90% (>88% in acute exacerbation of COPD)
- Treat underlying cause and contributory factors
- If feasible, sit the patient up to improve diaphragmatic descent and increase tidal volume
- Clear secretions: encourage cough, physiotherapy, aspiration
- Drain large pleural effusion if present
- Drain pneumothorax if present
- Optimize cardiac output: treat hypotension and heart failure
- Consider ventilatory support

Severe anaemia

- Evaluate the ABCs (Airway, Breathing, and Circulation) and to treat any life-threatening conditions immediately.
- Crystalloid is the initial fluid of choice
- Acute anemia due to blood loss
 - O₂
 - IV access
 - Provide supplemental oxygen via nasal cannula or face-mask.
 - GXM & Transfuse
 - Obtain fresh frozen plasma (FFP), coagulation factors, and platelets, if indicated.
 - Patients with hemophilia should have samples of the deficient factors sent for measurement.
- Once the patient is stabilized, begin specific measures to treat the underlying cause of bleeding.

Health-worker presenting immediately following a needle-stick injury

- Immediate care to exposure site
 - Encourage bleeding from the site but do not scrub or cut the site, washing it with soap and water
- Determine risk based on exposure type, source and material
 - High risk exposure includes percutaneous injury (needle-stick injury)
 - High risk source includes HIV status unknown, clinically well/ unwell or HIV positive
 - High risk material includes blood and bloody body fluids
- Evaluate the source and exposed person to determine risk associated with exposure
 - Assess the potential risk of infection
 - Counsel the source and exposed person for HIV testing and offer testing to both without coercion. Exposed person should not receive ARV drugs for post-exposure prophylaxis (PEP) without being tested except if immediate testing is not feasible. PEP should not be delayed since HIV testing can be done the following day
- Counseling and support should be provided to the exposed initially and continued thereafter
- HIV test should be done at baseline; other baseline tests include FBC, LFTs and renal function
- Start HIV post-exposure prophylaxis (PEP) as soon as possible (within 1 hour of exposure if possible) and definitely before 72 hours; in the healthcare worker PEP is indicated due to the high risk exposure