BLOCK 'N'

1
A 60-year-old male with a history of progressive fatigue and splenomegaly presents for evaluation. His complete blood count shows anemia, leukopenia, and thrombocytopenia. A peripheral blood smear reveals teardrop-shaped red cells, nucleated red cells, and the presence of myelocytes and metamyelocytes. Which of the following is the most likely diagnosis?
a. Acute myeloid leukemia (AML) b. Chronic lymphocytic leukemia (CLL) c. Chronic myeloid leukemia (CML)
d. Myelofibrosis e. Sickle cell anemia

A 45-year-old male patient who smoke 1 pack of cigarette per day presented to OPD nausea, vomiting, dull ach pain in right hypochondrium with dark color urine. You made a provisional diagnosis of acute hepatitis. The laboratory reports revealed Hb 18.5 g/dl, RBC 4.5 million/µL, HCT 42%, TLC 16000/µL. Which of the following is the most likely explanation for this laboratory finding?
a. Jaundice, or a very high white cell count is present b. The patient has a history of smoking leading to increased hemoglobin
c. The patient is dehydrated, causing hemoconcentration d. There was improper sample mixing during blood collection.

30-year-old male patients presented to the OPD with a one-month history of increasing fatigue, shortness of breath on exertion, and frequent episodes of nosebleeds. He also reported a recent onset of fever and a sore throat. Physical examination revealed pallor, purpura on his arms and legs. His complete blood count shows severe pancytopenia with hemoglobin of 7 g/dL, a platelet counts of 15 x 10^9/L, and an absolute neutrophil count of 0.5 x 10^9/L with reticulocyte count 0.2 %. A bone marrow biopsy is performed, which shows a markedly hypocellular marrow without excess blasts or dysplasia. You want to admit this case in medical ICU. Based on lab findings which is the severity level of aplastic anemia
a. Mild aplastic b. Moderate aplastic c. Non- severe aplastic d. Severe aplastic e. Very severe aplastic

A 70-year-old female with a history of persistent back pain presented to the medical OPD She reported a recent onset of fatigue and frequent nocturnal urination. Laboratory tests revealed hypercalcemia and anemia. Serum protein electrophoresis showed a monoclonal protein spike, and urine electrophoresis indicated Bence Jones proteinuria. Skeletal X-rays demonstrate multiple lytic lesions throughout the axial skeleton. Which of the following additional laboratory findings would be considered as bad prognostic factor in this case of multiple myeloma?
a. Decreased serum levels of albumin and elevated beta-2 microglobulin b. Elevated erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP) c. Elevated serum levels of IgG and presence of kappa light chains d. Impaired renal function and increased IgG e. Presence of oligoclonal bands in cerebrospinal fluid.

A 55-year-old female with a history of feeling tired and a moderate splenomegaly on physical examination was referred to a hematologist. Her blood tests revealed a white blood cell count of 230,000/µL, with 10% basophils and an increased number of eosinophils. Her platelet count is elevated at 600,000/µL. Cytogenetic analysis shows the presence of the Philadelphia chromosome. She started treatment with Tyrosine kinase inhibitor. Considering the response of treatment which of the following would be the expectation on follow up?
a. Most patients achieve complete cytogenetic response within a month of TKI initiation.
b. The Ph chromosome disappears in approximately 90% of patients within a month of therapy.
c. Blood counts normalize within 3–6 months in all patients treated with TKIs.
d. Most patients achieve complete cytogenetic response in 3-6 months of TKI initiation.

A 55-year-old woman presented to the emergency department with petechiae, ecchymoses, and gums bleeding. She denied any recent infections or trauma. On physical examination, there is no hepatosplenomegaly. The laboratory reports revealed Hb 11.5 g/dl, RBC 4.5 million/µL, HCT 42%, TLC 10000/µL, platelet counts 17 x 10^9/L. Which of the following is the most likely diagnosis?
a. Disseminated intravascular coagulation (DIC) b. Hemolytic uremic syndrome (HUS) c. Immune thrombocytopenia (ITP)
d. Thrombotic thrombocytopenic purpura (TTP)

A 50-year-old male presented with a 2-week history of fatigue, fever, and night sweats. He also reported shortness of breath on exertion. On physical examination, he has pale conjunctiva and mild splenomegaly. His complete blood count showed Hb 8.5 g/dl, RBC 3.5 million/µL, HCT 39%, TLC 40000/µL, platelet counts 20 x 10^9/L. with 40% blasts. Which of the following additional tests is most crucial for confirming the diagnosis of acute myeloid leukemia (AML) in this patient?
a. Flow cytometry for the presence of myeloid blast markers b. Immunophenotyping to determine the cell surface markers on blasts
c. Cytogenetic analysis to detect chromosomal abnormalities d. Molecular testing for gene mutations associated with AML
e. Bone marrow examination for morphological examination of blasts

A 72-year-old patient with advanced cancer is admitted to the medical unit. The trainee medical officer wants to prevent delirium during the patient's hospital stay. Which of the following components should be included in a multicomponent non-chemotherapeutic intervention to prevent delirium for this patient?

a. Administering sedative medications to promote sleep
b. Encouraging family members to visit frequently
c. Providing cognitive stimulation through puzzles and games
d. Ensuring optimal hydration and promoting for foods

An 82-year-old man presented to OPD for a routine check-up. He had a history of hypertension, osteoarthritis, and mild cognitive impairment. He noticed increasing fatigue and difficulty with daily activities. On examination, he walked slowly, had reduced grip strength, and exhibits mild cognitive deficits. His weight had remained stable. Evaluation of this patient's health should be done using?

a. Clinical disability Scale
b. Clinical Fragility Scale
c. Clinical Frailty Scale
d. Geriatric Depression Scale
e. Mini-Mental State Examination

A 32-year-old female presented with d early morning stiffness, fatigue with low back pain radiating to the buttocks and posterior thighs. She reported that the pain worse in the second half of the night and improved with exercise. Physical examination revealed limited lumbar spine motion in all planes, and the Schober test is positive. Which of the following is the most likely diagnosis?

a. Enteropathic arthritis
b. Nonradiographic axial spondyloarthritis
c. Psoriatic arthritis
d. Radiographic axial spondyloarthritis
e. Reactive arthritis

A 50 years old obese, hypertensive man presented with swelling and pain in Right first metatarsophalangeal joint. He is using ARB/Hydrochlorothiazide for Hypertension. His serum uric acid is 8.2 mg/dl. CRP:45. What is the most appropriate treatment?

a. Allopurinol
b. Colchicine
c. Feboxustat
d. HCQ
e. Methotrexate

A young lady 30 years of age with difficulty in climbing stairs and getting out of bed in morning for last one month. She has rash over the V of the neck and around the eyelids. What is the confirmatory investigation?

a. ANA
b. CPK
c. EMG
d. Muscle Biopsy
e. RA Factor ESR

A 35-year-old lady presented with diffuse body pains and fatiguability of 3 months duration. She has disturbed sleep. Examination revealed multiple tender points, rest of the examination is unremarkable. Serum calcium, TSH, ANA, ESR, CRP, RA factor are within normal range. What is the most appropriate treatment?

a. Amitriptyline
b. Methotrexate
c. Mycophenolate mofetil
d. NSAIDs
e. Steroids

An eighty-year-old lady presented with swelling of both knee joints. She has difficulty in walking and is unable to bend knee during prayers. On examination she has crepitus in knee joints. What would be possible radiological abnormality on X-ray of knee joint?

a. Erosion of articular surfaces
b. Fractures of articular margins
c. Marginal sclerosis
d. Periosteal elevation
e. Widening of joints

A 27-year-old female patient presented to the clinic with a 6-month history of symmetrical joint pain and stiffness in her hands, particularly in the morning. She reported that the stiffness lasts for more than an hour each day. On examination, there was swelling and tenderness in her proximal interphalangeal and metacarpophalangeal joints. Her rheumatoid factor and anti-CCP antibodies were positive, and ESR and CRP levels were elevated. She had no significant past medical history and was not currently taking any medication. Which of the following is the most appropriate initial management plan for this patient?

a. Begin with NSAIDs and monitor the patient's response before considering disease-modifying antirheumatic drugs (DMARDs).
b. Initiate methotrexate and folic acid supplementation and consider adding a biologic agent if there is no improvement.
c. Prescribe rest and physical therapy only, avoiding medication due to potential side effects.
d. Start high-dose glucocorticoids and taper down as symptoms improve.

A 55-year-old lady who is diagnosed with a case of Sjogren syndrome comes to the clinic. She is anxious and worried as she has studied on the internet that the Sjogren syndrome patient can develop lymphoma. Which of the following features is not considered an adverse predictor for lymphoma development in Sjögren syndrome?

a. Presence of CD4 lymphopenia
b. Presence of persistent parotid gland enlargement
c. Presence of purpura
d. Presence of splenomegaly
e. Salivary flow rate less than 1 mL/15 minutes

A 45-year-old lady presented with bone pains. She finds it difficult to abduct her shoulders and get up from chair. She had 3/5 power in shoulder muscles and hip flexors. She had 5/5 power in other muscle groups. Lab investigations showed Hb :12 g/dl; WBC: 11200/cmm, Platelets: 158000; Corrected serum calcium 2.02mmol (normal 2.2 to 2.6 mmol): Phosphate: 0.6mmol/l (0.7-1.4 mmo/l), Alkaline phosphatase 671 U/L, Creatinine 1.1 mg/dl, HCO3: 19mmol/l (normal 24-30 mmol/l). What is the most likely cause?
a. Hypoparathyroidism b. Hypothyroidism c. Osteomalacia d. Polymyalgia rheumatic e. Renal tubular acidosis type 1

A 36-year-old lady presented with arthralgias, bluish discoloration of fingers and constipation. She is having anti scl 70 antibodies positive. Which of the following does not contribute to the pathogenesis of given disease?
a. Hypoxia b. T cells c. Tissue fibrosis d. Vascular wall remodeling e. Vasculitis

A 42- Year old female underwent total Thyroidectomy for large thyroid goiter. Which of the following has been shown to reduce operative mortality by over 40%?
a. Using bites smaller than 1 cm to close fascia after a laparotomy b. Proper following of WHO safety checklist
c. Reviewing the patient's imaging prior to an operation d. Routine placement of surgical drains e. Give proper dosage of Antibiotics

A 40- year old male patient presented with acute abdomen and ultimately planned for Exploratory Laparotomy. Which abdominal incision is no longer commonly used?
a. Midline b. Paramedian c. Subcostal d. Pfannenstiel e. Transverse abdominal

Which of the following is a recommendation endorsed by the Centers for Disease Control and Prevention to reduce the risk of surgical site infection?
a. Hair removal from surgical site by skin Clippers just after prophylactic dose of antibiotics
b. Tight glucose control perioperatively with goal of <180 mg/dL c. Core body temperature maintained above 35.5°C
d. Use of decreased FiO_2 during & immediately postoperatively in patients who had general anesthesia with endotracheal intubation
e. Induction of Spinal anesthesia instead of General anesthesia to the patient

A 53-year-old male undergoes emergent exploratory laparotomy for perforated sigmoid diverticulitis. He is not septic and makes urine throughout the case, but the procedure lasts for 5 hours and the patient receives over 4 L of intravenous crystalloid. When should this patient's Foley catheter be removed following surgery?
a. Immediately following the procedure b. On postoperative day 1 or as soon as it has served its purpose
c. On postoperative day 3 if no hematuria and ureteral injury ruled out d. When patient is ambulatory e. On postoperative day 5

A 35-year old female underwent Laparoscopic Cholecystectomy for gallstones. Who bears final responsibility for assessing a patient's risk of complications?
a. Surgeon b. Anesthesiologist c. Primary care physician d.Close Family Members e. Anesthesia Technician

A 42-year-old patient presents with second-degree burns to the anterior surface of both legs and anterior torso. What is his total percentage body surface area burn?
a. 18% b. 36% c. 45% d. 54% e. 63%

A 65-year-old man sustains a 50% TBSA burn while burning trash in the backyard. The patient is resuscitated with lactated Ringer (LR) solution using the Parkland formula and a weight of 70 kg. What is the rate of LR given in the first 8 hours?
a. 100 mL/h b. 550 mL/h c. 875 mL/h d. 1000 mL/h e. 1500 mL/h

A 56-year-old male is burned while sleeping in his home. His right upper and lower extremity and the anterior aspect of the upper chest have extensive third-degree burns. A Third-degree burn is characterized by which of the following?
a.Fixed capillary staining b. Pearly white appearance c. Completely Anaesthetic & lesion extending to subcutaneous fat layer
d. Erythema and bullae formation e. Requires immediate skin grafting

A 42-year-old man city worker presents after sustaining an electrical burn. He has contact burns on his hands and feet. His ECG shows normal sinus rhythm. What is this patient at risk for?
a. Respiratory distress b. Renal failure c. Hyperthermia d. Hypothermia e. Infection

Following initial resuscitation, based upon the Parkland formula, the patient was resuscitated with Ringer's lactate solution at 1000 mL/h. Further assessment after 7 hours reveals oliguria. What should the next step in management be?
a. Give Plasma b. Continue Resuscitation with ringer lactate to achieve urine output to 1ml/kg/hr
c. Give Diuretics to improve urine flow d. Colloid solution e. Continue initial resuscitation with normal saline

Immunological testing of anti-cyclic citrullinated peptide antibodies (Anti-CCP antibodies) is most commonly used in the diagnosis and prognosis of which immunological condition?
a. Ankylosing Spondylitis b. Psoriasis Arthritis c. Rheumatoid Arthritis d. Reiters Syndrome e. Systematic Lupus Erythymatosis

In poliomyelitis, paralysis of tibialis anterior and tibialis posterior muscles with unopposed action of peroneal and triceps surae muscles will cause which foot deformity?
a. Cavovarus b. Calcaneovalgus c. Equinovalgus d. Equinovarus e. Flail foot

The most common type of scoliosis is?
a. Adolescent idiopathic scoliosis b. Congenital scoliosis c. Infantile scoliosis d. Neuromuscular scoliosis e. Degenerative scoliosis

Which immunoglobulin subtype does the rheumatoid factor target?
a. IgA b. IgE c. IgM d. IgG e. Rheumatoid factor does not target an immunoglobulin

The most type of curve in adolescent idiopathic scoliosis is?
a. Left thoracic b. Right thoracic c. Left thoracolumbar d. Right thoracolumbar e. Right cervicothoracic

Which of the following statement is true regarding inherited bleeding disorder?
a. Haemophillia is autosomal recessive disorder b. Haemophillia becomes more severe in pregnancy because of decrease factor 8 levels
c. All women with VWD disease will respond to DDAVP during labour d. Type 1 VWD has 50 % chance of being affected baby
e. Chorionic villous sampling is contraindicated in haemophilia due to bleeding tendency

A 22 yrs old PG is booking for antenatal care at 10 weeks of pregnancy. She is otherwise healthy and has no past medical and surgical history of relevance. What are the current NICE recommendations for screening of anaemia in pregnancy?
a. At booking b. AT booking and at 28 weeks c. At booking, 28 and 36 weeks
d. At booking then at every antenatal visit till 36 weeks e. At booking and then 4 weekly till 36 weeks

A three-day neonate born SVD, preterm (36 weeks gestation) with immediate cry is brought to OPD for a first time examination. He is on breast milk. Clinically there is minimal jaundice, normal tone and reflexes. Blood tests done reveals: CBC: 16000/mm3, Hb: 15g/dl, Platelets: 250000/mm3, MCV: 110 fl, Serum bilirubin: 9, of which 7 is indirect and 2 is direct. What should be the next step?
a. Advice folic acid and vitamin b12 drops b. Advice Iron and multivitamin drops c. Exposure to sunlight & Reassurance
d. Further investigate e. Admit and start i.v. antibiotics

A 14 months presents to OPD with excessive irritability and decreased appetite for 3 months. There is no history of fever, loose stools, cough or vomiting. History reveals he was born full term SVD, and on breast feeding for 3 months after which cow`s milk was substituted. Weaning was started at 7 months and included rice, yoghurt, fruit juices. Mother complains that child cries most of the time despite feeding him 7 times in a day. What is the most likely cause of her symptoms?
a. Iron deficiency b. Megaloblastic anemia c. Tuberculosis d. Metabolic disorder e. Delayed weaning

A 12 months old infant has pallor. He was born full term and was formula fed initially but then substituted with goat`s milk from 2nd month onwards. There is no history of loose stools, vomiting, cough. He started sitting at 7 months and crawled at 11 months. Clinically he is pale and irritable, not jaundiced. Edema is negative. Abdomen is soft and only tip of spleen is palpable but that could be normal considering his age. What is the most likely diagnosis?
a. Iron deficiency anemia b. Hemolytic anemia c. Vitamin B12 deficiency d. Folic acid deficiency e. Malabsorption syndrome

An 18 months' toddler has recently recovered from mild upper respiratory tract infection. He is brought to a pediatrician clinic by his mother due to `not gaining weight`. Mother states that she gives him breast feeding since birth and weaned him at 6 months of age with rice, dalia, kheer and fruits. Toddler hasn't erupted teeth yet and mother hasn't given him meat which she herself is not fond of and avoids completely. Clinically he is pale,aferile but mildly jaundiced & irritable. Liver/spleen are not enlarged. Most likely diagnosis?
a. Hemolytic anemia b. Iron deficiency c. Aplastic anemia d. vitamin B 12 deficiency e. Acute viral hepatitis

A six days female neonate presents with jaundice. She was born full term, SVD with immediate cry. she developed jaundice on 3rd day of life and since then it has increased considerably. Clinically she is jaundiced ,pale and minimally tachypneac. Her abdomen is soft and spleen is palpable 3 cm below left costal margin. Investigations carried out show following results: WBC : 16000 serum bilirubin 25 mg/dl of which direct is 5 and indirect is 20, reticulocyte count is 6 %. what is the most likely diagnosis?
a. ABO incompatibility b. Physiological jaundice c. Hereditary spherocytosis d. G-6-PD deficiency e. Autoimmune hemolytic anemia

A five years old child presents to OPD with severe pain in the digits of both upper limbs. He has a history of moderate pains in different parts of the body. There is also a history of chest infection which required hospitalization and is on regular medication which mother described as some sort of antibiotics. He is an issue of consanguineous marriage. O/E he is pale looking, with frontal bossing. What is the most likely diagnosis?
a. G-6-PD deficiency b. Autoimmune hemolytic anemia c. Thalassemia
d. Sickle cell disease e. Severe combined immunodeficiency syndrome(SCID)

A 4 years old female child brought to an OPD with bruises and petechie scattered over her body. There is no history of trauma. Child also had two episodes of epistaxis in the last 2 days. O/E she is alert, afebrile, there are scattered bruises and petechiae. On palpating abdomen, there is no visceromegaly and lymph nodes are also not palpable on general physical examination. Diagnosis?
a. Aplastic anemia b. ITP(immune thrombocytopenic purpura) c. NAI (non- accidental injury)
d. Acute leukemia e. Autoimmune hemolytic anemia

A previously well 4 years old child has been brought to the hospital with the complaints of yellow discoloration of eyes for 4 days. General physical examination reveals a pale looking child who is afebrile. There is no lymphadenopathy, hepatomegaly or ascites. Pitting edema is also negative, but patient do have an enlarged spleen. Past history reveals of a febrile episode few days back, which involved no cough, dysuria, vomiting or headache and for which he was given some antimalarial by a GP. Most likely diagnosis?
a. G-6-PD deficiency b. Autoimmune hemolytic anemia c. Thalassemia
d. Hereditary spherocytosis e. Pyruvate kinase deficiency

A five years old child presents with swelling of right knee joint for five days. The is a history of fall on ground while playing football 6 days ago. There is no history of fever. Child is otherwise thriving well and is an issue of consanguineous marriage. He is an avid player of sports and previously had injured his left ankle joint but that seemed to have resolve quickly perhaps due to minor injury. His elder sister has a history of prolonged albeit minor bleeding history after trauma. What is the most likely diagnosis?
a. Fanconi`s Anemia b. ITP(immune thrombocytopenic purpura) c. Factor V laden deficiency
d. Hemophilia A (skewed lyonization) e. Factor X deficiency

A five years old child gives a history of pain in both knee joints for the past eight weeks. She was prescribed NSAIDS which reduced pain. Now for the past one week she also has developed pain in left elbow joint. Joint is tender, swollen and shows limited range of movements. Two days back she was referred to Rheumatologist who diagnosed her as a case of Juvenile idiopathic Arthritis (Pauci articular disease). Which of the following specific investigation(s) should be carried out in this case?
a. ESR (Erythrocyte sedimentation rate) b. Ultrasound abdomen and pelvis c. Joint fluid aspirate for cytology
d. ANA(anti neutrophilic antibody) followed by slit lamp examination e. lupus anticoagulant antibodies

A ten years old child presents with severe pain in right knee joint for five days. It is accompanied by fever which is high grade but responds to ibuprofen whereas joint pain responds partially to it. Joint is tender, swollen and can't be flexed due to pain. Pain has not shifted to other joints. There was also a rash on the body for 3 days which has by now faded away. His throat and chest examination is clear. What is the most likely diagnosis?
a. Acute Rheumatic fever b. Reactive arthritis c. Septic arthritis d. Juvenile idiopathic arthritis e. Hemophilia A

A 6-year male child presents with progressive difficulty in standing up from sitting position and walking. Child had previously acquired mile stones at appropriate age. Clinically child has normal vital signs and normal joints examination. Deep tendon reflexes are intact whereas Trendelenburg test is positive. What is the diagnostic test in this case?

a. Creatinine Kinase b. LDH/Aldolase c. PCR (Polymerase chain reaction)
d. NCS(Nerve conduction studies) e. EMG(Electromyography)

An 11 months old infant gives a history of recurrent chest infections and slightly delayed gross motor skills. He was born full term and breastfed since birth with weaning started at six months. He looks chubby as mother seems to take good care of him and he is being kept indoor mostly. Clinically he has normal vitals and doesn't look pale. Chest examination reveals scattered rhonchi. He has widened wrists and also anterior fontanelle is wide and open. What is the most likely diagnosis?

a. Ig A deficiency b. Rickets c. Scurvy d. Severe Malnutrition e. Cerebral Palsy

Which of the following type of acne is accompanied with fever, joint pain and raised ESR?

a. Conglobate acne b. Acne excoriee c. Acne fulminans d. Acne keloidalis nuchae

Which of the following statement is correct regarding psoriasis?

a. Psoriasis mostly involves the flexural surfaces of the body b. Systemic corticosteroids are the main stay of treatment
c. Type 1 psoriasis is associated with HLA Cw6 d. Histopathology of psoriasis shows basal layer degeneration

Following statements are correct regarding impetigo except

a. In mild cases topical mupirocin or Fusidic acid is effective
b. Can lead to glomerulonephritis if caused by nephratogenic strain of Streptococcus
c. In bullous variety the bulla formation is due to exfoliative toxin produced by staphylococcus
d. It is highly contagious and most common in children

Which of the following statement regarding Molluscum contagiosum is incorrect

a. Classic lesion is dome shaped, skin coloured, umblicated papule b. Mostly occur in children above one year of age
c. Treatment can be done by gentle squeezing with forceps after bathing d. It is caused by human cytomegalovirus

Kobner phenomanon is seen in

a. Lichen planus b. Psoriasis c. Human papilloma virus infection d. All of the above

25 years old female presented with pruritic, plain topped, purplish papules in flexures. Most likely diagnosis is:

a. Psoriasis b. Lichen striatus c. Lichen nitidus d. Lichen planus

Scabies in adults differ from that in children by

a. Not involving the face b. Not involving groin c. Ivermectin is not effective in adults d. Not involved areola

As a doctor you are breaking a bad news of biopsy report of showing malignancy to a patient. You asked the patient to ask questions so that he may know in detail about his condition. Which step you are at of spike model?

a. Knowledge b. Invitation c. Perception d. Empathy e. Setting

45 years old male is suffering from changing physical symptoms belonging to different systems of his body. For the last two years he has been investigated by different specialists but all findings were unremarkable. His symptoms persist and he asks for newer drugs treatment. He is much worried about his problems. He uses few drugs for few days and consults another doctor. When comes to you has dozens of prescriptions. What could be the most possible diagnosis?

a. Illness Anxiety disorder b. Chronic Mood Disorder c. Somatization Disorder
d. Autonomic Dysfunctional Disorder e. Delusional Disorder

A 40 year old lady was brought with history of acute blindness since 4 days who reportedly developed this problem when 4 days ago her husband remarried. Her relevant investigations and ophthalmological and neurological examinations were unremarkable. What could be the most probable diagnosis?

a. Bilateral Ophthalmitis b. Occipital Lobe Infarct c. Hypochndriasis
d. Conversion Disorder e. Dissociative Amnesia