**KENYA MEDICAL TRAINING COLLEGE**

**KMTC QUALITY MANAGEMENT SYSTEMS**

**FACULTY OF CLINICAL SCIENCES**

***DEPARTMENT OF ORTHOPAEDICS AND TRAUMA MEDICINE***

***GENERAL ORTHOPAEDICS I***

**Module: General Orthopaedics I**

**MCQS (Multiple Choice Questions)**

1. A 7 year male child complaints of absent movements of Right Lower Limb On Examination Fever is present High grade local temperature is raised on Right Lower End Femur Tenderness is present in metaphysis of Lower End Right Femur Immediately Limb is splinted according to rules of Splintage Intravenous Fluids started Intravenous Analgesics given Patient is sent for urgent X rays which of the following is not true about X ray in such scenario
   1. Earliest bony change of osteomyelitis is periosteal reaction
   2. Earliest change of osteomyelitis is loss of soft tissue planes
   3. Acute Osteomyelitis periosteal reaction can be solid
   4. Chronic osteomyelitis periosteal reaction is usually sun burst appearance
2. A young girl presented with history of trauma 2 months back now she presents with swelling at mid shaft of femur and low-grade fever ESR is mildly raised X ray shows a lamellated periosteal reaction Next line of investigation
   1. MRI
   2. Biopsy
   3. Bone scan
   4. Blood
3. Osteomyelitis is a bone infection usually caused by bacteria mycobacteria or fungi of the following groups which group has a lower risk of osteomyelitis
   1. Adolescents
   2. Older people
   3. Those with serious medical conditions
   4. Young children
4. Organisms in orthopaedics
   1. Candida albicans
   2. Treponema pallidum
   3. Nocardia
   4. Vibrio vulnificus
5. Which of the following statements about osteomyelitis is NOT correct
   1. Chronic osteomyelitis is easily treated and cured
   2. Surgery may be necessary to treat osteomyelitis developing from nearby soft tissue infection
   3. The infected area almost always appears abnormal on a bone scan
   4. X rays may show characteristic changes of osteomyelitis but sometimes not until 2 to 4 weeks after the first symptoms may occur
6. A patient with acute osteomyelitis of the left femur is hospitalized for regional antibiotic irrigation. Which intervention will be included in the initial plan of care
   1. Immobilization of the left leg
   2. Positioning the left leg in flexion
   3. Assisted weight bearing ambulation
   4. Quadriceps setting exercise repetitions
7. A 50 years old patient is being discharged after a week of IV antibiotic therapy for acute osteomyelitis in the right leg Which information will be included in the discharge teaching
   1. How to apply warm packs to the leg to reduce pain
   2. How to monitor and care for the long-term IV catheter
   3. The need for daily aerobic exercise to help maintain muscle strength
   4. The reason for taking oral antibiotics for 7 to10 days after discharge
8. A 67 years old patient is receiving IV antibiotics at home to treat chronic osteomyelitis of the left femur The nurse chooses a nursing diagnosis of ineffective health maintenance when the nurse finds that the patient
   1. Is frustrated with the length of treatment required
   2. Takes and records the oral temperature twice a day
   3. Is unable to planter flex the foot on the affected side
   4. Uses crutches to avoid weight bearing on the affected leg
9. Osteomyelitis is all, except
   1. Acute haematogenous osteomyelitis
   2. Brodies abscess
   3. Garres sclerosing osteomyelitis
   4. Tom Smith Osteomyelitis
10. Post-traumatic osteomyelitis causing organism is:

A. Staphylococcus aureus

B. Staphylococcus pyogenes

C. E. Coli

D. Pseudomonas

11. Osteomyelitis of spine most common organism is:

A. Staphylococcus aureus

B. Pseudomonas

C. Tuberculosis

D. Streptococcus

12. All are true about chronic osteomyelitis except:

A. Reactive new bone formation

B. Cloaca is an opening in involucrum

C. Involucrum is dead bone

D. Sequestrum is hard and porous

13. Brodie’s abscess is:

A. Acute osteomyelitis

B. Subacute osteomyelitis

C. Chronic osteomyelitis

D. Septic arthritis

14. Most common organism causing infection after open fracture

A. Pseudomonas

B. Staphylococcus aureus

C. Kiebsiella

D. Gonococcus

15. Chronic persistent neutrophilic discharge is seen in:

A. Chronic osteomyelitis

B. Acute osteomyelitis

C. Septic arthritis

D. None

16. Cloacae are present in:

A. Sequestrum

B. Involucrum

C. Normal bone

D. Myositis

17. Sequestrum is best defined as:

A. A piece of dead bone

B. A piece of dead bone surrounded by infected tissue

C. A piece of bone with poor vascularity

D. None

18. Osteomyelitis most commonly starts at:

A. Epiphysis

B. Metaphysis

C. Diaphysis

D. None

19. Brodies abscess at upper end tibia is:

A. Acute osteomyelitis

B. Subacute osteomyelitis

C. Chronic osteomyelitis

D. Septic Arthritis

20. Acute osteomyelitis is most commonly caused by:

A. Staphylococcus aureus

B. Actinomyces bovis

C. Nocardia asteroids

D. Borrelia Vincentii

21. Chronic osteomyelitis is diagnosed mainly by

A. Sequestrum

B. Bone fracture

C. Deformity

D. Brodie’s abscess

22. Which of the following is NOT TRUE regarding tubercular osteomyelitis?

A. It is a secondary TB

B. Periosteal reaction is seen

C. Sequestration is uncommon

D. Inflammation is minimum

23. True regarding acute osteomyelitis in a child:

A. Diagnosis by X-ray shows periosteal reaction in 8–10 days after onset

B. There is tenderness at the site

C. Antibiotic therapy should be at least for 6 weeks

D. Salmonella is the most common cause

24. An 8-year-old boy presents with a gradually progressing swelling and pain for 6 months over the upper tibia. On X-ray, there is a lytic lesion with sclerotic margins in the upper tibial metaphysis. The diagnosis is:

A. Osteogenic sarcoma

B. Osteoclastoma

C. Brodie’s abscess

D. Ewing’s sarcoma

25. All are associated with chronic osteomyelitis except:

A. Amyloidosis

B. Sequestrum

C. Metastatic abscess

D. Myositis ossificans

26. The most common organism causing osteomyelitis in drug abusers is:

A. E. coli

B. Pseudomonas

C. Kiebsiella

D. Staphylococcus Aureus

27. The most common source of bone and joint infection is:

A. Direct spread

B. Percutaneous

C. Lymphatic

D. Haematogenous

28. Instillation treatment in osteomyelitis is:

A. Continuous suction + continuous drainage

B. Intermittent suction + continuous drainage

C. Continuous suction + intermittent drainage

D. Intermittent suction + intermittent drainage

29. The ideal treatment for acute osteomyelitis of long bones is:

A. Antibiotics only

B. Drilling of bone

C. Decompression

D. Antibiotics and if indicated decompression

30. Non healing sinus is a common clinical feature is chronic osteomyelitis. The most common frequent cause for this presentation is:

A. Resistant organisms

B. Retained foreign body

C. Presence of sequestrum

D. Intraosseous cavities

## SAQS

1. Discussion tubercular osteomyelitis (8 marks)
2. State any five radiological features of acute osteomyelitis (5marks)
3. List five pioneers who had great roles in the history of orthopaedics (5marks)
4. State any five radiological features of chronic osteomyelitis (5mark)
5. List any five laboratory investigations utilized in Osteomyelitis (5marks)
6. State five causes of osteomyelitis (5marks)
7. Define osteomyelitis and state the mode of spread of osteomyelitis (7marks)

## LAQS

1. Discuss pharmacological management of the following (20marks)

a. Acute Osteomyelitis

b. Chronic Osteomyelitis

2. Differentiate acute osteomyelitis from chronic osteomyelitis (10 marks)