

Station no.1

Council a patient of microcytic  
hypochromic anemia...

Explain the disease

Treatment options

Inclusion exclusion of different causes of  
microcytic hypochromic anemia...

10:55 AM

(Station 15)



→ HSP, ITP, TTP, HUS

1. What are the differential diagnosis? (3)

2. What other organs can be involved?

- ↳ Splenomegaly
- Hepatomegaly
- Joint involvement
- Renal failure.

1:33 PM

Da zma last station wo...but 2nd question mei organ effect k jaga tha...  
Which investigations would like to perform

1:33 PM

*Block n station.. examination of radial,  
ulner and median nerve*

11:32 AM



Axial picture of a new born with cephalohematoma in the left parietal area of the head.

## Baby born with this

1. diagnosis

2 complication 1

3. Dds

→ Cephalohematoma.  
→ Neonatal Jaundice.  
→ Chignon, Tumor, Hematoma, desmoid, Lipoma.  
Etiocranial.

1:21 PM

*Ospe : haematological examination of  
anemia*

12:55 PM

Surgery station :

Interactive

Grades of hemorrhoids

Treatment options

of hemorrhoids

Complications of hemorrhoids

1. Bleeding only
- 2.
- 3.
- 4.

grade 1 or 2: → Sclerotherapy  
3 & 4.

Rectal prolapse infection:  
Thrombosis, Stenogulation  
Anemia

12:31 PM



Message



A female patient was sitting, command was to examine the hand of the patient and report positive findings and give differential diagnosis

11:52 AM

# *Hand examination and presentation with differential diagnosis and investigations*

11:41 AM

2 days infant presented to opd for routine neonatal checkup take history from his attendant.

1:49 PM ✓✓

*Patient has Ca rectum!!! Counsel him for APR and permanent colostomy!!!!*

1:32 PM



Name the fracture? → comminuted fracture of both the radius & ulna. in the forearm.

What serious complication would you expect?

- Compartment Syndrome. - infection
- Neurovascular injury. - loss of forearm function.
- Malunion or Nonunion. - Volkmann's ischemic Contracture.

How will you manage?

- ↳ Immobilization.
- ↳ Assess circulation / nerve function
- ↳ Pain management.
- ↳ Check for open wounds
- ↳ Elevate the limb.

- closed reduction & casting
- ORIF
- External fixation
- Physio.

# Xray abdomen : intestinal perforation

2:16 PM

## Management

2:16 PM

- ↳ Initial ABC management :-
- ABC (IV fluids)
  - Antibiotics.



## Intestinal Obstructions

Definition: A blockage in the small or large intestine that prevents the normal passage of digestive contents.

Causes:

Mechanical Obstruction:

Adhesions: Scar tissue that forms after abdominal surgery, causing loops of intestine to stick together.

Hernias: Protrusion of an organ or tissue through a weak spot in the abdominal wall.

Volvulus: Twisting of the intestine around itself.

Intussusception: Telescoping of one part of the intestine into another (more common in children).

Tumors: Growths that block the intestinal lumen.

Foreign bodies: Swallowed objects that become lodged in the intestine.

Diverticulitis: Inflammation of pouches (diverticula) in the colon.

Inflammatory bowel disease (Crohn's disease): Inflammation that causes narrowing of the intestinal lumen.

Functional (Paralytic Ileus):

Post-surgical: Temporary paralysis of the intestines after abdominal surgery.

Medications: Certain drugs can slow down intestinal motility.

Electrolyte imbalances: Disturbances in potassium or other electrolytes.

Infections: Sepsis or other severe infections.

Neurological disorders: Conditions that affect the nerves controlling intestinal motility.

Treatment:

Non-Surgical:

Nasogastric (NG) tube: To decompress the stomach and intestines.

IV fluids: To correct dehydration and electrolyte imbalances.

Pain management: To relieve discomfort.

Treatment of underlying cause: Addressing infections or electrolyte imbalances.

Surgical:

Laparotomy or laparoscopy: To remove the obstruction (adhesions, tumors, volvulus, etc.).

Bowel resection: Removal of a damaged or obstructed section of the intestine.

Stoma creation: In some cases, a temporary or permanent opening (stoma) is created to divert stool.

Complications:

Dehydration and electrolyte imbalances.

Ischemia and necrosis: Lack of blood flow to the obstructed bowel, leading to tissue death.

Perforation: Rupture of the intestinal wall, causing peritonitis (infection of the abdominal cavity).

Sepsis: A life-threatening systemic infection.

Short bowel syndrome: If a large portion of the intestine is removed.

Death.

Megacolon

Definition: Abnormal dilation of the colon.

Causes:

Congenital (Hirschsprung's Disease): Absence of nerve cells in the colon, preventing normal peristalsis (muscle contractions).

Acquired:

Chronic constipation: Long-term difficulty passing stool.

Chagas disease: Infection caused by the parasite *Trypanosoma cruzi*.

Inflammatory bowel disease (ulcerative colitis).

Neurological disorders.

Certain medications.

Volvulus: Can lead to a megacolon.

Pseudo-obstruction: Condition where the colon acts as if it is blocked, but there is no physical blockage.

Treatment:

Hirschsprung's Disease:

Surgical resection: Removal of the affected portion of the colon.

Colostomy or ileostomy: May be necessary in some cases.

Acquired Megacolon:

Treatment of underlying cause: Addressing constipation, infections, or other contributing factors.

Laxatives and enemas: To relieve constipation.

Bowel retraining: To establish regular bowel habits.

Surgery (colectomy): May be necessary in severe cases.

Complications:

Fecal impaction: Hardened stool that cannot be passed.

Volvulus: Twisting of the dilated colon.

Perforation: Rupture of the colon.

Sepsis.

Toxic megacolon: Severe dilation of the colon with systemic toxicity (more common in ulcerative colitis).

Death..

Instruments

NG tube

T-tube

Foleys catheter

Identification and their use

2:40 PM

## Nasogastric (NG) Tube: Uses, Indications, and Contraindications

### Uses of NG Tube

Gastric Decompression – To relieve stomach distension in bowel obstruction, paralytic ileus, or post-surgery.

Enteral Feeding – Provides nutrition in patients who cannot eat orally but have an intact GI tract.

Medication Administration – Delivers oral medications in patients who cannot swallow.

Gastric Lavage – Cleanses the stomach in cases of poisoning or drug overdose.

Gastric Aspiration – Collects stomach contents for diagnostic analysis (e.g., gastrointestinal bleeding, acid-base disorders).

Prevention of Aspiration – Used in unconscious or critically ill patients to reduce the risk of aspiration pneumonia.

### Indications for NG Tube Insertion

Gastrointestinal obstruction (e.g., small bowel obstruction, gastric outlet obstruction)

Severe vomiting or inability to clear gastric contents

Neurological disorders affecting swallowing (e.g., stroke, ALS)

Postoperative care (to prevent ileus and aspiration)

Gastric bleeding (to monitor and manage bleeding)

Overdose or poisoning (for lavage in selective cases)

Severe malnutrition or conditions requiring enteral nutrition

### Contraindications of NG Tube Insertion

#### Absolute Contraindications

Severe facial trauma (risk of intracranial placement)

Esophageal stricture, perforation, or obstruction

Recent nasal, esophageal, or gastric surgery

Skull base fracture (risk of intracranial misplacement)

#### Relative Contraindications

Coagulopathy or bleeding disorders (risk of nasal or gastric bleeding)

Esophageal varices (risk of rupture and bleeding)

Recent head or neck surgery

Severe GERD or hiatal hernia (risk of reflux and aspiration)

## Foley Catheter: Uses, Indications, and Contraindications

### What is a Foley Catheter?

A Foley catheter is a flexible, sterile tube inserted into the bladder via the urethra to drain urine. It has an inflatable balloon at the tip to keep it in place and is commonly used in medical settings for various urinary conditions.

### Uses of a Foley Catheter

Urinary Drainage – For patients unable to urinate due to obstruction or neurological conditions.

Urine Output Monitoring – In critically ill patients or during surgery.

Bladder Irrigation – To flush out blood clots or debris (e.g., post-TURP surgery).

Urinary Retention Management – In cases of acute or chronic urinary retention.

Postoperative Urinary Management – After urological or pelvic surgeries.

Pressure Ulcer Prevention – In immobilized patients to prevent skin breakdown from urinary incontinence.

### Indications for Foley Catheter Insertion

Acute or chronic urinary retention (e.g., due to BPH, neurogenic bladder)

Obstructive uropathy (e.g., urethral stricture, bladder outlet obstruction)

Need for accurate urine output measurement (e.g., ICU patients, shock)

Postoperative urinary management (e.g., after abdominal, urological, or spinal surgeries)

Bladder irrigation (e.g., hematuria with clot retention)

End-of-life care (for comfort in terminally ill patients)

Contraindications of Foley Catheter Insertion

Absolute Contraindications

Urethral injury (e.g., pelvic trauma with suspected urethral tear)

Urethral stricture (risk of further damage)

Severe prostate enlargement obstructing catheter passage

Relative Contraindications

Uncontrolled bleeding or infection of the urethra

Severe urethritis (risk of worsening infection)

Allergy to catheter material (e.g., latex allergy)

T-Tube: Uses, Indications, and Contraindications

What is a T-Tube?

A T-Tube is a T-shaped drainage tube inserted into the common bile duct after bile duct surgery, typically following choledochotomy (surgical opening of the common bile duct). It helps drain bile externally while allowing healing of the bile duct.

Uses of a T-Tube

Bile Drainage – Prevents bile accumulation and allows external drainage after bile duct surgery.

Common Bile Duct Healing – Maintains duct patency and prevents strictures after surgery.

Contrast Cholangiography – Used to assess bile duct patency before removal.

Management of Bile Duct Injury – Helps in cases of bile leaks or ductal trauma.

Relief of Biliary Obstruction – Temporarily drains bile in cases of stones, strictures, or tumors.

Indications for T-Tube Placement

Postoperative management after common bile duct exploration (e.g., stone removal).

Biliary obstruction due to strictures, tumors, or stones.

Bile duct injury (e.g., iatrogenic injury during gallbladder surgery).

Temporary bile diversion in cases of hepatic or biliary diseases.

Contraindications of T-Tube Placement

Absolute Contraindications

Severe infection or peritonitis that may worsen with bile leakage.

Uncontrollable coagulopathy (risk of excessive bleeding).

Severe adhesions or fibrosis making placement difficult.

Relative Contraindications

Small or fragile bile ducts (risk of tearing).

Patients with a high risk of bile leakage (risk of bile peritonitis).

Unstable patients where alternative drainage methods may be safer

## Block - N

### \* DERMA;

- 1) Oral thrush
- 2) - Pharyngotonsillar Vulgaris
- 3) - Plantar warts.

### \* SURGERS;

- 4) - hemorrhoids
- 5) - Counselling of A rectum
- 6) - Abdominal perforation X-ray
- 7) - Urinary catheter
- 8) - Spinal X-Ray: "spinal cancer"

### \* Paeds;

- 9) - Antenatal care checkup of 2 months old
- 10) - Iron deficiency anemia (Examination)
- 11) - Neonatal Resuscitation.

### \* Rheumatology;

- 12) - Examination of hand
- 13) - hemological Examination adult
- 14) - Iron deficiency anemia (counselling)
- 15) - dermatomyositis (Malitope Rash)
- 16) - Rash on buttocks, hands → D-Ds were + HSP, ITP
- 17) - Assisted delivery → bulge on head → Write
- 18) - Multiple myeloma (static station)
- 17) - Ulnar/Radial Examination.
- 20) - another static station.

23<sup>rd</sup> Dec.  
Monday.

A four years old child has presented to Pediatric OPD with history of high-grade fever, pallor and epistaxis for the last two weeks. He has used oral medications but without any improvement.

On examination the patient is pale, running temperature of 102° F, is having lymphadenopathy and hepatosplenomegaly.

His blood shows TLC of 37000 with 07% of neutrophils, Hb: 7.0 gm/dl and platelet count of 27000.

1. Write two differential diagnosis?
2. How will you confirm your diagnosis?
3. How will you manage this case?

## 1. Two Differential Diagnoses

Acute Lymphoblastic Leukemia (ALL) – Most likely due to high-grade fever, pallor, epistaxis, hepatosplenomegaly, lymphadenopathy, severe anemia (Hb 7.0), thrombocytopenia (platelet 27,000), and leukocytosis (TLC 37,000) with 0% neutrophils, all of which are suggestive of leukemia.

Leukemoid Reaction (Secondary to Infection or Tuberculosis) – Certain infections can cause extreme leukocytosis, lymphadenopathy, and splenomegaly, but the absence of neutrophils makes this diagnosis less likely.

## 2. How to Confirm the Diagnosis?

To confirm ALL, the following tests should be done:

Peripheral Blood Smear (PBS): Presence of lymphoblasts suggests leukemia.

Bone Marrow Aspiration & Biopsy: Definitive test showing >20% blasts confirms ALL.

Flow Cytometry: Identifies immunophenotype (B-cell or T-cell ALL).

Cytogenetics & Molecular Testing: Identifies chromosomal abnormalities (e.g., Philadelphia chromosome t(9;22)).

Complete Blood Count (CBC): Confirms anemia, thrombocytopenia, and leukocytosis.

Lumbar Puncture (CSF Analysis): Checks for CNS involvement.

Coagulation Profile (PT, aPTT, INR, D-dimer): Rules out disseminated intravascular coagulation (DIC).

## 3. How Will You Manage This Case?

Immediate Supportive Care:

Blood transfusion if Hb is severely low.

Platelet transfusion if there is active bleeding.

Broad-spectrum antibiotics if there is fever and suspected infection.

Hydration & Allopurinol/Rasburicase to prevent tumor lysis syndrome.

Definitive Treatment (Chemotherapy for ALL):

Induction Therapy (4 weeks):

Vincristine + Dexamethasone/Prednisone + L-Asparaginase + Anthracycline

Intrathecal Methotrexate to prevent CNS involvement

Consolidation Therapy:

High-dose chemotherapy to kill remaining leukemia cells

Maintenance Therapy (2–3 years):

Low-dose Methotrexate + 6-Mercaptopurine

Bone Marrow Transplant:

Considered in high-risk or relapsed ALL cases

Foundation blocks: N  
Static station

A 37 weeker born via C-section weighing 4kg present with two episodes of generalized tonic clonic fits on day of life. Labs showed hypoglycemia.



Name the condition? (2)

Write two investigations? (2)

Write two complications? (2)

## Macrosomic Baby: Investigations and Complications

### Investigations for a Macrosomic Baby

#### Maternal Investigations:

Oral Glucose Tolerance Test (OGTT): To check for maternal diabetes.

HbA1c: To assess long-term blood sugar control in the mother.

Thyroid Function Tests: To rule out maternal hypothyroidism.

#### Neonatal Investigations:

Blood Glucose Levels: To check for neonatal hypoglycemia.

Serum Bilirubin: To assess for jaundice.

Complete Blood Count (CBC): To check for polycythemia.

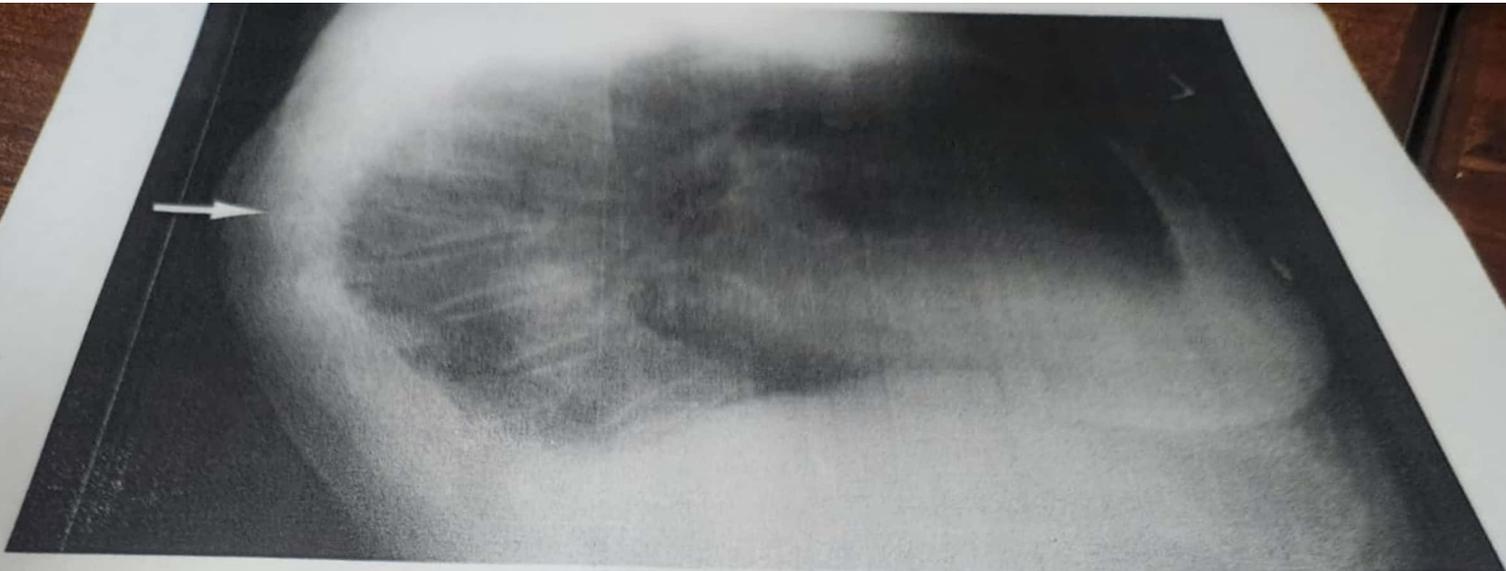
Serum Calcium and Magnesium: To rule out electrolyte imbalances.

X-ray (if needed): To assess for birth injuries (e.g., clavicle fracture, shoulder dystocia).

#### Two Complications of Macrosomia

**Birth Trauma:** Increased risk of shoulder dystocia, brachial plexus injury (Erb's palsy), and clavicle fractures due to difficult delivery.

**Neonatal Hypoglycemia:** Due to hyperinsulinemia, especially in infants of diabetic mothers, leading to seizures or neurological complications..



A 65-year-old postmenopausal woman visits the clinic with complaints of chronic backache and progressive loss of height over the last few years. She reports a history of wrist fracture after a minor fall last year.

- 01: What is the most likely Diagnosis (2 Mark):
- 02: Identifies any 2 risk factors (2 Marks):
- 03: Name one treatment & one Preventive Measure (2 Marks):

1. Most Likely Diagnosis:

The most likely diagnosis is Osteoporosis. This is suggested by:

Chronic backache (possibly due to vertebral fractures).

Progressive loss of height (a classic sign of vertebral compression fractures).

History of fragility fracture (wrist fracture after minor trauma), which is a hallmark of osteoporosis.

2. Two Risk Factors for Osteoporosis:

Postmenopausal status – Estrogen deficiency accelerates bone loss.

Advanced age (65 years old) – Bone mineral density decreases with age.

3. One Treatment and One Preventive Measure:

Treatment: Bisphosphonates (e.g., Alendronate, Risedronate) – These help prevent bone loss and reduce fracture risk.

Preventive Measure: Adequate Calcium and Vitamin D intake – Essential for maintaining bone strength.

Station No: \_\_\_\_\_ Roll No: \_\_\_\_\_

**Scenario:** 14 years old boy presents with pain, swelling of his left arm for the last 6 weeks. He gives history of trauma to his arm due to a fall 6 weeks back. On examination, you find discharging sinus on the anterolateral aspect of his proximal arm. He also gives history of low grade fever, weight loss and anorexia.  
Please look at the given X-Ray and answer the following questions.

COM

1. What is your diagnosis?

2. What are the two main types of this condition?

3. What is the treatment of this condition?



ROLL NO: \_\_\_\_\_  
CLASS YEAR: \_\_\_\_\_

Based on the scenario and the likely findings on the X-ray (which we can't fully see), the most probable diagnosis is osteomyelitis.

Osteomyelitis is an infection of the bone, and the symptoms described (pain, swelling, discharging sinus, fever, weight loss, anorexia) are highly suggestive of it. The history of trauma provides a potential entry point for infection.

2. What are the two main types of this condition?

Acute Osteomyelitis: This is a recent infection, usually lasting less than two weeks. It's characterized by sudden onset of symptoms.

Chronic Osteomyelitis: This is a persistent or recurring infection that has been present for weeks or months. It often involves bone necrosis (death) and the formation of sinuses.

3. What is the treatment of this condition?

The treatment of osteomyelitis typically involves a combination of:

Antibiotics: Prolonged courses of intravenous antibiotics are essential to eradicate the infection. The specific antibiotic is chosen based on the identified bacteria, if possible.

Surgical Intervention: Surgery may be necessary to:

Drain abscesses.

Remove infected or necrotic bone (debridement).

Stabilize fractures or address bone defects.

Supportive Care: This includes pain management, nutritional support, and physical therapy to restore function.

Important Considerations

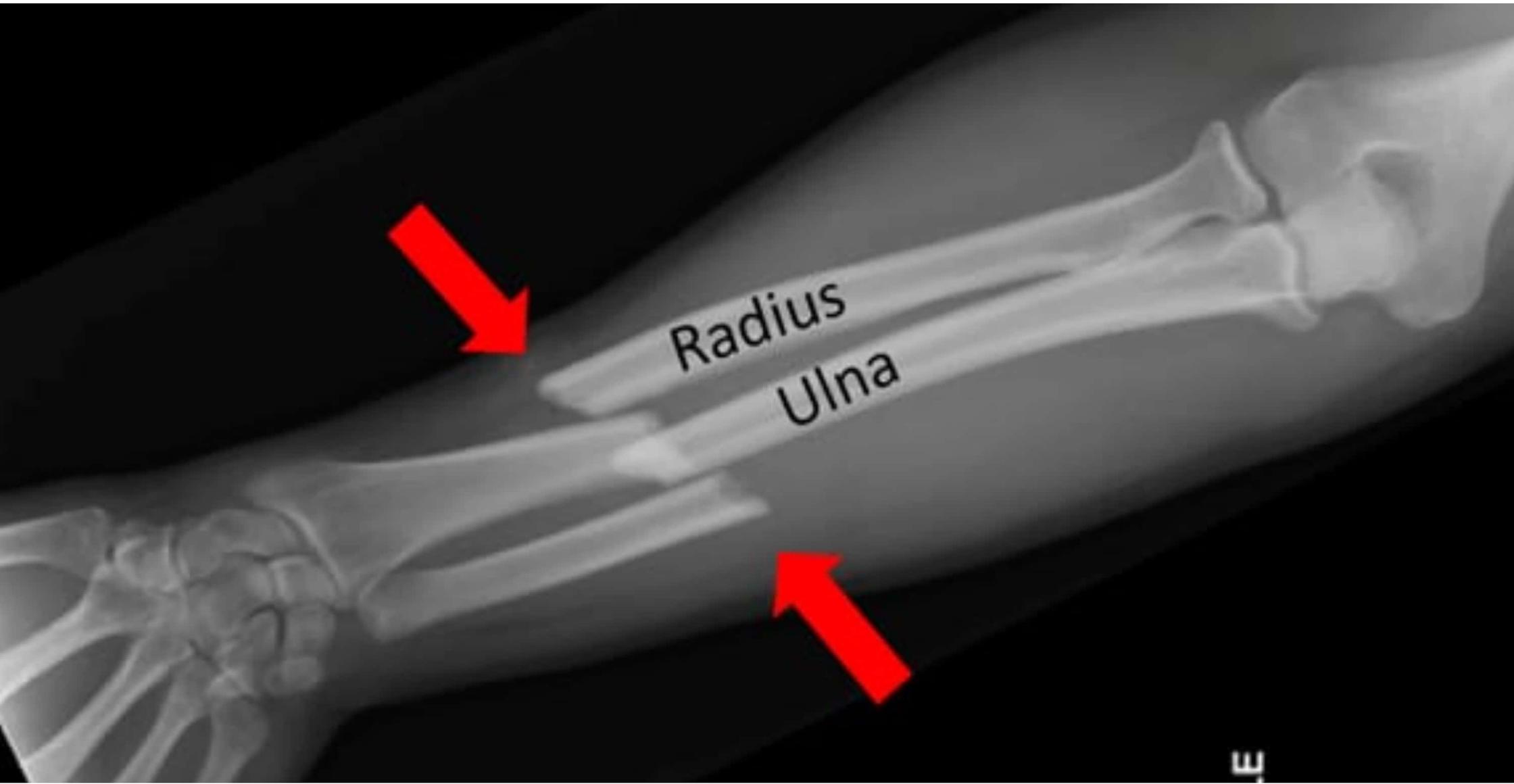
Confirmation: A definitive diagnosis of osteomyelitis requires further investigations, including:

Blood tests: To check for elevated inflammatory markers (e.g., ESR, CRP) and identify the causative organism.

Bone biopsy: To obtain a sample of bone for culture and sensitivity testing to determine the specific bacteria and its antibiotic susceptibility.

Imaging: MRI or CT scans may be needed for a more detailed assessment of the extent of bone involvement.

Prompt Treatment: Early diagnosis and treatment of osteomyelitis are crucial to prevent complications such as chronic infection, bone deformity, and sepsis.



## Interpretation of Data

A: A 20 year old student has presented with recurrent pain and swelling of the knee joints and thighs for the last many years. One of his younger brother has same symptoms since early childhood. The lab reports show; Hb 8g/dl, TLC 13000/mm<sup>3</sup>, Platelets 490,000/mm<sup>3</sup>, BT normal, CT prolonged, APTT prolonged.

Q-1; What is your diagnosis? 1

Q-2; What immediate treatment would you offer ? 2

B: A 25 year old lady has presented with bleeding from the nose and petechiae for the last three weeks. She has no lymphadenopathy & or splenomegaly on clinical examination.

The lab reports show; Hb 11g/dl, TLC 10500/mm<sup>3</sup>, Platelets 12000/mm<sup>3</sup>, Bleeding time prolonged but Clotting time normal.

Q-1; What is your diagnosis? 1

Q-2; How would you confirm your diagnosis? 2

Symptoms: Recurrent knee and thigh pain/swelling for years, family history (brother with similar symptoms).

Lab Findings:

Hb 8 g/dL (Low): Indicates anemia.

TLC 13,000/mm<sup>3</sup> (Elevated): Suggests infection or inflammation.

Platelets 490,000/mm<sup>3</sup> (Elevated): May be reactive to inflammation or other underlying process.

BT Normal: Normal bleeding time.

CT Prolonged: Prolonged clotting time.

APTT Prolonged: Prolonged activated partial thromboplastin time.

Q-1: What is your diagnosis?

The combination of recurrent joint pain/swelling, family history, anemia, elevated TLC, and prolonged CT/APTT points towards Hemophilia A or B (likely A given the prolonged APTT). The recurrent joint bleeds (hemarthrosis) are a hallmark of hemophilia.

Q-2: What immediate treatment would you offer?

Factor Replacement Therapy: This is the cornerstone of hemophilia treatment. Infusion of the deficient clotting factor (Factor VIII for Hemophilia A, Factor IX for Hemophilia B) is crucial to stop bleeding and prevent further joint damage.

Pain Management: Analgesics (avoiding NSAIDs which can exacerbate bleeding) for pain relief.

Rest and Immobilization: To reduce further bleeding into the joints.

If there is a significant joint bleed, aspiration and/or corticosteroids may be needed.

Case B: 25-year-old lady with bleeding and petechiae

Symptoms: Nosebleeds (epistaxis), petechiae (small red or purple spots due to bleeding under the skin).

Examination: No lymphadenopathy or splenomegaly.

Lab Findings:

Hb 11 g/dL (Slightly Low): Suggests mild anemia.

TLC 10,500/mm<sup>3</sup> (Slightly Elevated): May be reactive.

Platelets 12,000/mm<sup>3</sup> (Very Low): Indicates thrombocytopenia.

Bleeding Time Prolonged: Suggests platelet dysfunction or low platelet count.

Clotting Time Normal: Normal coagulation cascade.

Q-1: What is your diagnosis?

The combination of petechiae, nosebleeds, low platelets, and prolonged bleeding time strongly suggests Immune Thrombocytopenic Purpura (ITP).

Q-2: How would you confirm your diagnosis?

Peripheral Blood Smear: To examine the morphology of platelets and rule out other causes of thrombocytopenia.

Bone Marrow Biopsy (if necessary): To assess platelet production and rule out other bone marrow disorders. This is usually not done initially but may be considered if there is no response to treatment or if there are atypical features.

Testing for Platelet Antibodies: To confirm the autoimmune nature of ITP



**ARTERY FORCEPS:** It is of different sizes (small, medium, large) and different shapes (straight, curved). The smaller version is called mosquito or sinus forceps which is used to open up the abscess cavity, breaking its loculi. Other uses of artery forceps include hemostasis, pedicular clamp for spleen and kidney, to crush the base of appendix during appendectomy etc.



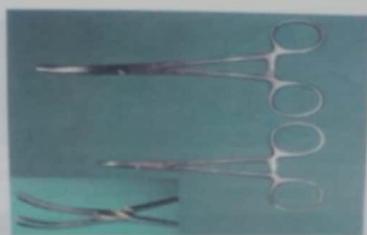
**NEEDLE HOLDER:** This instrument is used to hold the curved needles which are used to suture the parts. A firm grip is essential to apply proper sutures. Needle holder can be confused with artery forceps but it has cross serrations on its surface and it may have groove on its inner surface. The needle should be held with its tip at its junction of distal one third and proximal two third.

12:27 PM



**BABCOCK'S TISSUE FORCEPS:** It is used to hold soft and delicate structures like fallopian tubes, uterus and appendix as it is non traumatizing type of forceps.

12:27 PM



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Block N 23.12.24 needle holder , straight artery forcep, curved artery forcep , babcocks tissue forcep Identification and use

12:28 PM

My last station was  
Radial nerve examination

12:42 PM

⇒ Forwarded

Mcv 104, hb 6, yellow discoloration,  
pallor, reticulocyte count was mentioned.  
Counsel the patient regarding his  
diagnosis and treatment.

Diagnosis:

Autoimmune Hemolytic anemia

Treatment:

Differentials

12:42 PM

I remember percentile chart and ofc  
measurement

Neonatal resuscitation

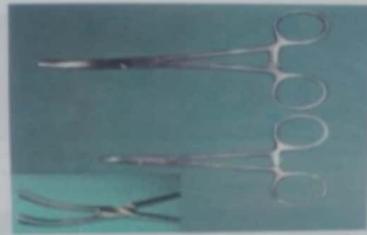
Knee examination

Hand examination

Modified radical mastectomy counseling

Hemolytic anemia counseling

12:42 PM



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Block N 23.12.24 needle holder , straight artery forcep, curved artery forcep , babcocks tissue forcep Identification and use

12:28 PM

A 32 week pregnant lady is going to OT for C section. You are a neonatologist in Labour room waiting to cater to this preterm child. What preparations would you make in advance and how would you approach to this child.

Interactive station where mam was asking questions I already added to the scenario like what preparations would you make in advance and what would you do if the child is in apnea or is not crying etc.

2:13 PM

How to Approach the Questions (Building on the previous response):

### 1. Preparations in Advance:

**Team Briefing and Roles:** Emphasize the importance of a team huddle, discussing the mother's history, expected fetal condition, and clearly assigning roles to each member of the resuscitation team.

**Equipment Check and Preparation:** Detail the specific equipment needed (radiant warmer, suction, oxygen, PPV devices, ETTs, medications, etc.) and how you ensure they are functioning and readily available.

**Warm Environment:** Highlight the need to pre-warm the resuscitation area and all materials to prevent hypothermia.

**Anticipation of Complications:** Discuss the common problems faced by preterm infants (RDS, hypothermia, hypoglycemia, infection, IVH) and how you prepare for them.

**Delivery Room Checklist:** Mention the use of a checklist to ensure all steps are followed.

### 2. Management of Apnea or Non-Crying Infant:

**The "Golden Minute":** Stress the importance of rapid assessment and intervention within the first minute of life.

**Initial Steps:** Describe the initial steps of drying, warming, clearing the airway (if needed), and assessing breathing, heart rate, and color.

**Positive Pressure Ventilation (PPV):**

**If Apnea/Gasping:** Immediately start PPV with room air, increasing FiO<sub>2</sub> as needed.

**Technique:** Describe proper mask seal, rate, and pressure for effective ventilation.

**Assessment:** Emphasize the need to reassess heart rate and chest rise after 15-30 seconds of PPV.

**Chest Compressions:**

**If Heart Rate < 60 bpm after 30 seconds of PPV:** Begin chest compressions coordinated with ventilation.

**Technique:** Describe the proper depth, rate, and hand placement for chest compressions.

**Medications (Epinephrine):**

**If Heart Rate < 60 bpm after 30 seconds of compressions and ventilation:** Administer epinephrine.

**Route:** Discuss the preferred route (IV or IO).

**Ongoing Assessment and Monitoring:** Highlight the need to continuously monitor heart rate, respiratory rate, oxygen saturation, and temperature.

**Transfer to NICU:** Emphasize the need to transfer the infant to the NICU for further care once stabilized.

**Key Communication Skills for the Interactive Station:**

**Clear and Concise Language:** Use medical terminology appropriately but explain concepts in a way that is easy to understand.

**Demonstrate Confidence:** Project confidence in your knowledge and skills.

**Active Listening:** Pay attention to the "mam's" questions and respond thoughtfully.

**Step-by-Step Approach:** Break down complex procedures into clear, sequential steps.

**Show Empathy:** Demonstrate concern for the infant's well-being and the parents' anxiety.

Block N today 4:13 PM

One station was steps of open and close cholecystectomy.

Complications and what is post cholecystectomy syndrome

4:19 PM



A Pic like this but unfused growth plates so sir was asking about the xray, displaced vs undisplaced. And how can you tell the age of patient by xray? Unfused growth plates. What is emergency that needs immediate surgical intervention? Compartment syndrome.

Edited 4:22 PM

Counsel a patient regarding modified radical mastectomy? What happens if I don't do it?

What are some alternatives to the procedure?

How can I maintain Breast symmetry after the procedure?

What's triple assessment of the Breast?

History/exam + xray/mammogram + biopsy

4:24 PM

## 1. Open Cholecystectomy (Traditional Approach)

### Indications:

Severe inflammation (acute cholecystitis)

Perforated gallbladder

Gallbladder cancer

Failed laparoscopic surgery

### Steps:

1. Incision: Right subcostal (Kocher's) or midline laparotomy.
2. Exposure: Retract liver to expose gallbladder.
3. Dissection: Identify Calot's triangle (Cystic duct, Cystic artery, Common bile duct).
4. Ligation & Division:  
Clamp, ligate, and cut cystic duct & cystic artery.
5. Gallbladder Removal: Detach from liver bed using cautery.
6. Hemostasis & Drain Placement (if needed).
7. Closure: Layered closure of abdominal wall.

---

## 2. Laparoscopic Cholecystectomy (Closed Approach)

Preferred method due to faster recovery, less pain, and shorter hospital stay.

### Steps:

1. Pneumoperitoneum: Insert trocar and insufflate CO<sub>2</sub>.
2. Port Placement: Typically four trocars in upper abdomen.
3. Expose Gallbladder: Retract fundus to visualize Calot's triangle.

4. Dissect Calot's Triangle: Identify and separate cystic duct and artery.

5. Clip & Cut Cystic Duct and Artery.

6. Gallbladder Removal: Dissect from liver bed and extract via trocar.

7. Check for Bleeding & Stone Spillage.

8. Closure of Trocar Sites.

---

### Complications of Cholecystectomy

Early Complications (within days to weeks):

Bleeding (liver, cystic artery).

Bile Leak (from cystic duct stump or accessory ducts).

Infection (wound infection, abscess, peritonitis).

Injury to Nearby Structures:

Common Bile Duct Injury (most serious).

Hepatic Duct Injury.

Bowel or vascular injury (rare).

Late Complications:

Post-Cholecystectomy Syndrome (PCS) – Persistent symptoms post-surgery.

Biliary Strictures – Scarring of bile ducts.

Adhesions & Bowel Obstruction.

---

### Post-Cholecystectomy Syndrome (PCS)

Definition:

Persistent abdominal pain, dyspepsia, or biliary symptoms after gallbladder removal.

Causes:

1. Bile Duct Injury or Stricture.
2. Retained Common Bile Duct Stones.
3. Sphincter of Oddi Dysfunction (spasm causing biliary pain).
4. Reflux Gastritis (continuous bile flow irritating stomach lining).
5. Adhesions or Residual Inflammation.

Diagnosis:

Liver function tests (LFTs).

Ultrasound or MRCP (Magnetic Resonance Cholangiopancreatography) to check for bile duct pathology.

Treatment:

Endoscopic Retrograde Cholangiopancreatography (ERCP) for bile duct strictures or stones.

Medications (antispasmodics, bile acid sequestrants).

Dietary modifications (low-fat diet, small frequent meals)

Answers to the Questions Based on the X-ray and Scenario:

### 1. Displaced vs. Undisplaced Fracture?

Displaced fracture:

The broken bone fragments are not aligned properly.

There is a visible gap or angulation between the bone segments.

May require reduction (closed or open).

Undisplaced fracture:

The bone is cracked but remains in alignment.

No significant shift in position.

Usually managed with immobilization (cast/splint).

---

### 2. How Can You Tell the Age of a Patient by X-ray?

Presence of Unfused Growth Plates (Epiphyseal Plates)

Growth plates are visible as radiolucent (dark) lines near the ends of long bones.

Open/unfused growth plates suggest the patient is a child or adolescent.

Fused growth plates indicate skeletal maturity (usually after puberty).

Bone age assessment can be done using a wrist X-ray (Greulich & Pyle method).

---

### 3. What is the Emergency That Needs Immediate Surgical Intervention?

Compartment Syndrome

A limb-threatening condition caused by increased pressure within a muscle compartment, leading to reduced blood flow and tissue damage.

Symptoms:

Severe pain (out of proportion to injury)

Pain on passive stretch

Paresthesia (numbness, tingling)

Pulselessness (late sign, needs urgent intervention)

Immediate surgical intervention: Fasciotomy to relieve pressure and prevent necrosis.

Steps of neonatal resuscitation in a preterm baby. Scenario ario of a preterm 32 weeker just born and yiu are ready to resuscitate it.

Questions asked: What's the difference between preterm and term like what do u suspect can happen in preterm bbies? Respiratory distress due to surfactant deficiency. What is the treatment for it? When do you use iv caffeine in the baby?

4:27 PM



Husband had this infection spread to the wife. Diagnosis? Treatment? What happens with topical steroids on these lesions? Name 3 drugs used for this disease? Which test is used to confirm diagnosis? Name 3 fungal infections according to it's site.

4:34 PM

## Ringworm (Tinea) - Case Analysis

### 1. Diagnosis?

Tinea (Dermatophytosis) – A superficial fungal infection caused by Trichophyton, Microsporum, or Epidermophyton species.

Spread through direct contact, commonly between family members.

---

### 2. Treatment?

Topical antifungals (for mild cases) – Clotrimazole, Terbinafine, Miconazole.

Oral antifungals (for widespread or resistant cases) – Terbinafine, Itraconazole, Fluconazole.

General care: Keep the area dry, avoid sharing personal items, wash clothing & bed linens regularly.

---

### 3. What Happens with Topical Steroids on These Lesions?

Steroid-induced Tinea (Tinea Incognito):

Steroids suppress inflammation, making the infection appear less red/scaly.

Causes atypical, widespread, and difficult-to-treat fungal infections.

Leads to worsening of the infection over time.

---

### 4. Three Drugs Used for This Disease?

1. Terbinafine (Topical & Oral) – Fungicidal, best for dermatophytes.

2. Itraconazole – Oral option for extensive cases.

3. Clotrimazole/Miconazole – Common topical antifungals.

---

### 5. Which Test is Used to Confirm Diagnosis?

KOH (Potassium Hydroxide) Preparation – Microscopic examination of skin scrapings to detect fungal hyphae.

Fungal Culture – Identifies specific dermatophyte species.

Wood's Lamp (UV Light) – Some species (Microsporum) fluoresce under UV light.

---

6. Three Fungal Infections According to Site:

1. Tinea Capitis – Scalp ringworm (hair loss, scaling).
2. Tinea Corporis – Body ringworm (classic ring-shaped lesion).

Neonatal Resuscitation Steps for a Preterm (32-Week) Baby

1. Preparation Before Birth:

Warmth: Preterm babies lose heat quickly → Use radiant warmer, plastic wrap, warm towels.

Team Readiness: Neonatal resuscitation team present.

Respiratory Support: Anticipate respiratory distress (due to surfactant deficiency).

Equipment Check: Suction, bag-mask ventilation (PPV), CPAP, oxygen, and intubation equipment ready.

---

## 2. Immediate Steps After Birth (Golden Minute):

### 1. Dry & Stimulate:

Gentle drying (except if <32 weeks, use plastic wrap instead).

Stimulate (rub back, flick feet).

### 2. Assess Breathing & Heart Rate (HR):

If HR >100 & breathing well → Supportive care.

If HR <100 or irregular breathing → Positive Pressure Ventilation (PPV).

If HR <60 → Chest compressions + PPV with 100% O<sub>2</sub>.

### 3. Airway Management:

Clear secretions (suction if needed).

CPAP (5-6 cm H<sub>2</sub>O) if baby has spontaneous breathing but signs of distress.

PPV (40-60 breaths/min, FiO<sub>2</sub> 21-30%) if breathing is inadequate.

### 4. Oxygenation:

Start with 21-30% O<sub>2</sub> (blended oxygen) and titrate based on SpO<sub>2</sub>.

Target Pre-Ductal SpO<sub>2</sub>:

1 min: 60-65%

5 min: 80-85%

10 min: 85-95%

### 5. Advanced Airway & Surfactant:

If baby requires prolonged PPV or FiO<sub>2</sub> >40%, consider endotracheal intubation.

Early surfactant administration (via ETT or minimally invasive methods like LISA).

6. Chest Compressions (if HR <60 despite 30 sec of effective PPV):

3:1 compression-to-ventilation ratio (90 compressions + 30 breaths/min).

7. Epinephrine (if HR remains <60 after 30 sec of compressions & PPV):

IV Epinephrine (0.01-0.03 mg/kg/dose) via umbilical vein catheter.

---

Differences Between Preterm & Term Babies: What Do You Suspect in Preterms?

1. Respiratory Distress Syndrome (RDS) – Due to surfactant deficiency.

2. Hypothermia – Limited fat stores, poor thermoregulation.

3. Hypoglycemia – Low glycogen stores, immature glucose regulation.

4. Immature Suck-Swallow Reflex – Feeding difficulties, need for NG feeds.

5. Intraventricular Hemorrhage (IVH) – Fragile germinal matrix in the brain.

6. Necrotizing Enterocolitis (NEC) – Gut immaturity, risk of bowel necrosis.

7. Patent Ductus Arteriosus (PDA) – Persistent shunting due to immature closure.

8. Apnea of Prematurity – Immature brainstem control of breathing.

---

Respiratory Distress Due to Surfactant Deficiency – Treatment

1. Surfactant Replacement Therapy

Indications:  $\text{FiO}_2 > 40\%$ , severe RDS on CXR, intubation needed.

Drugs: Poractant alfa (Curosurf), Beractant (Survanta), Calfactant (Infasurf).

Administration: Via ETT (intubation) or minimally invasive methods (LISA, MIST).

2. Non-Invasive Ventilation

CPAP (Continuous Positive Airway Pressure) – 1st line if baby is breathing spontaneously.

Nasal Intermittent Positive Pressure Ventilation (NIPPV) – If CPAP fails.

## . Mechanical Ventilation

If baby fails CPAP/NIPPV and needs intubation.

## 4. Oxygen Therapy

Maintain SpO<sub>2</sub> targets (85-95% by 10 min of life).

---

## When Do You Use IV Caffeine in a Preterm Baby?

Indications for IV Caffeine (Caffeine Citrate):

1. Apnea of Prematurity (AOP) – Periodic breathing pauses due to immature brainstem.
2. To Reduce Need for Mechanical Ventilation – Improves respiratory drive.
3. Before Extubation – Helps maintain spontaneous breathing.

Dosage:

Loading dose: 20 mg/kg IV.

Maintenance dose: 5-10 mg/kg/day IV or oral

Examine a patient with rheumatoid arthritis. She had visible swan neck deformity. Don't forget pallens test, prayer sign, tinnels test, make her do the signature, check for both active and passive movements of the joints, make her open a lock with a key.

4:38 PM



Shingles

ADAM



Picture similar to this. Don't have exact one.

Name the lesion?

Name the organism causing this?

What else can this virus cause in the body?

4:39 PM

## Shingles (Herpes Zoster) - Case Analysis

### 1. Name the Lesion?

Vesicular rash in a dermatomal distribution (grouped vesicles on an erythematous base).

Characteristic unilateral and follows a nerve dermatome.

### 2. Name the Organism Causing This?

Varicella-Zoster Virus (VZV) (Human Herpesvirus-3, HHV-3).

It is the same virus that causes chickenpox (varicella) in primary infection.

### 3. What Else Can This Virus Cause in the Body?

Besides shingles, VZV can cause:

1. Primary Infection: Chickenpox (Varicella) – Fever & widespread vesicular rash in children.

2. Postherpetic Neuralgia (PHN) – Chronic nerve pain after shingles.

3. Herpes Zoster Ophthalmicus – Affects the trigeminal nerve (V1 branch), leading to eye complications.

4. Herpes Zoster Oticus (Ramsay Hunt Syndrome) – Facial paralysis & ear pain if VZV involves cranial nerve VII.

### 5. Neurological Complications:

Meningoencephalitis

Transverse Myelitis

Guillain-Barré Syndrome (rare association)

6. Disseminated Zoster (Immunocompromised patients) – Widespread VZV affecting multiple organs..



20 year old diagnosed with acne In the scenario. Picture was similar to this. Questions asked were what are types of acne? What age group is common to have acne? What can you use for it? And what are the 4 treatment options for it

4:43 PM

Ayesha jis me mene similar to this likh hai wo real picture nahi hai. Ye last 2 a fracture real picture nahi hai. Sorry I couldn't take pictures of that

4:4

## 1. Types of Acne:

Acne can be classified based on lesion type and severity:

### A. Based on Lesion Type:

#### 1. Non-Inflammatory Acne:

Open comedones (blackheads) – Clogged pores with oxidized keratin.

Closed comedones (whiteheads) – Pores clogged beneath the skin surface.

#### 2. Inflammatory Acne:

Papules – Small, red, inflamed bumps.

Pustules – Papules with pus-filled centers.

Nodules – Large, painful, deep-seated lesions.

Cysts – Deep, pus-filled painful lumps that can cause scarring.

### B. Based on Severity:

Mild Acne – Comedones with few inflammatory lesions.

Moderate Acne – More papules, pustules, and occasional nodules.

Severe Acne – Numerous nodules, cysts, and risk of scarring.

---

## 2. Age Group Most Commonly Affected:

Teenagers (12–25 years) – Due to hormonal changes during puberty.

Adults (>25 years) – Particularly in women (hormonal acne, stress, PCOS).

---

## 3. What Can You Use for Acne?

Treatment depends on severity:

### 1. Topical Treatments (First-line for Mild to Moderate Acne):

Benzoyl peroxide – Antibacterial & anti-inflammatory.

Retinoids (Tretinoin, Adapalene, Tazarotene) – Prevent comedone formation.

Topical antibiotics (Clindamycin, Erythromycin) – Reduce P. acnes bacteria.

Azelaic acid – Anti-inflammatory & depigmenting effect.

## 2. Oral Medications (For Moderate to Severe Acne):

Oral antibiotics (Doxycycline, Minocycline, Tetracycline) – Reduce bacterial load.

Oral isotretinoin (Accutane) – For severe, nodulocystic, or treatment-resistant acne.

Hormonal therapy (Oral contraceptives, Spironolactone) – For hormonal acne in females.

## 3. Adjunctive Treatments:

Chemical peels (salicylic acid, glycolic acid).

Laser & light therapy (blue light, photodynamic therapy).

---

## 4. Four Treatment Options for Acne:

1. Topical Therapy – Retinoids, benzoyl peroxide, antibiotics.

2. Oral Therapy – Antibiotics, isotretinoin, hormonal therapy.

3. Physical Procedures – Extraction, chemical peels, laser.

4. Lifestyle & Skincare Modifications – Avoiding harsh scrubs, oil-free products, stress management, and a healthy diet.

Paper N

17 yr old having nose bleeding peteche  
what could be bleeding disorder  
(hemophilia and von W)  
Hemophilia complications  
Diagnosis and treatment

12:20 PM



Message



Case A: 20-year-old student with recurrent joint pain and swelling

Symptoms: Recurrent knee and thigh pain/swelling for years, family history (brother with similar symptoms).

Lab Findings:

Hb 8 g/dL (Low): Indicates anemia.

TLC 13,000/mm<sup>3</sup> (Elevated): Suggests infection or inflammation.

Platelets 490,000/mm<sup>3</sup> (Elevated): May be reactive to inflammation or other underlying process.

BT Normal: Normal bleeding time.

CT Prolonged: Prolonged clotting time.

APTT Prolonged: Prolonged activated partial thromboplastin time.

Q-1: What is your diagnosis?

The combination of recurrent joint pain/swelling, family history, anemia, elevated TLC, and prolonged CT/APTT points towards Hemophilia A or B (likely A given the prolonged APTT). The recurrent joint bleeds (hemarthrosis) are a hallmark of hemophilia.

Q-2: What immediate treatment would you offer?

Factor Replacement Therapy: This is the cornerstone of hemophilia treatment. Infusion of the deficient clotting factor (Factor VIII for Hemophilia A, Factor IX for Hemophilia B) is crucial to stop bleeding and prevent further joint damage.

Pain Management: Analgesics (avoiding NSAIDs which can exacerbate bleeding) for pain relief.

Rest and Immobilization: To reduce further bleeding into the joints.

If there is a significant joint bleed, aspiration and/or corticosteroids may be needed.

Case B: 25-year-old lady with bleeding and petechiae

Symptoms: Nosebleeds (epistaxis), petechiae (small red or purple spots due to bleeding under the skin).

Examination: No lymphadenopathy or splenomegaly.

Lab Findings:

Hb 11 g/dL (Slightly Low): Suggests mild anemia.

TLC 10,500/mm<sup>3</sup> (Slightly Elevated): May be reactive.

Platelets 12,000/mm<sup>3</sup> (Very Low): Indicates thrombocytopenia.

Bleeding Time Prolonged: Suggests platelet dysfunction or low platelet count.

Clotting Time Normal: Normal coagulation cascade.

Q-1: What is your diagnosis?

The combination of petechiae, nosebleeds, low platelets, and prolonged bleeding time strongly suggests Immune Thrombocytopenic Purpura (ITP).

Q-2: How would you confirm your diagnosis?

Peripheral Blood Smear: To examine the morphology of platelets and rule out other causes of thrombocytopenia.

Bone Marrow Biopsy (if necessary): To assess platelet production and rule out other bone marrow disorders. This is usually not done initially but may be considered if there is no response to treatment or if there are atypical features.

Testing for Platelet Antibodies: To confirm the autoimmune nature of ITP

# *AVN( avascular necrosis) identify xray Tx and investigation*

10:46 AM

Treatment:

Non-Surgical Management (Early-stage AVN, No Collapse)

1. Activity Modification & Pain Management:

Restricted weight-bearing (crutches) to slow progression.

NSAIDs (e.g., ibuprofen, naproxen) for pain relief.

2. Bisphosphonates (e.g., alendronate, zoledronic acid):

May help prevent bone collapse, though evidence is mixed.

3. Anticoagulation (if thrombophilia-related AVN):

Low-molecular-weight heparin (LMWH) or oral anticoagulants in hypercoagulable states.

4. Hyperbaric Oxygen Therapy (HBOT):

Improves oxygen supply to necrotic bone, but its role is still under investigation.

---

Surgical Management (Advanced AVN, Femoral Head Collapse)

1. Core Decompression (Stage I & II AVN):

Drilling into the necrotic area to reduce pressure and promote revascularization.

May be combined with bone grafting (vascularized or non-vascularized) or stem cell therapy.

2. Osteotomy (Stage II & III):

Realigns the femoral head to redistribute load and delay disease progression.

3. Total Hip Arthroplasty (THA) (Stage III & IV, Severe Collapse):

Definitive treatment for severe joint destruction and pain relief.

Preferred in older patients or those with advanced disease.

4. Hemiarthroplasty (if joint surface is intact but femoral head collapse is extensive):

Used selectively in younger patients to preserve acetabulum..

## STATION 48:



A mother brought her infant with greasy yellowish moderately adherent scaly plaques affecting the scalp for past 3 months.

### QUESTIONS:

1. Clinical diagnosis? (2)
2. Common sites involved? (2)
3. Mainstay treatment options? (2)

Case Analysis:

An infant presents with greasy, yellowish, moderately adherent scaly plaques on the scalp for the past 3 months.

1. Clinical Diagnosis:

Seborrheic Dermatitis (Cradle Cap) – A benign, self-limiting inflammatory skin condition common in infants, characterized by excessive sebum production and colonization by *Malassezia* yeast.

---

## 2. Common Sites Involved:

Scalp (most common, "cradle cap")

Face (eyebrows, eyelids, nasolabial folds)

Ears (postauricular region)

Neck creases

Diaper area (can mimic irritant diaper dermatitis)

Axillae & flexural areas (in severe cases)

---

## 3. Mainstay Treatment Options:

### Mild Cases:

Gentle scalp care – Daily washing with a mild baby shampoo.

Emollients (e.g., mineral oil, coconut oil, or petroleum jelly) – Helps loosen scales before gentle brushing.

### Moderate to Severe Cases:

Ketoconazole 2% shampoo or cream – Antifungal to reduce *Malassezia* overgrowth.

Low-potency topical corticosteroids (e.g., hydrocortisone 1%) – For inflammation in severe cases.

Topical calcineurin inhibitors (e.g., tacrolimus or pimecrolimus) – Alternative to steroids for facial involvement.

### General Measures:

Avoid harsh soaps or excessive scrubbing, which can worsen irritation.

Educate parents that the condition is self-limiting and typically resolves by 6–12 months

## Station 8

Identify the instruments and enlist its use

## Station 8

Identify the instruments and enlist its use

## STATION :



A 1 year-old boy presented with moon facies, truncal obesity, skin fragility and facial hypertrichosis. His mother gives history of frequent topicals and IM injections given to the child by local doctors on & off for recurrent pruritis.

### QUESTIONS:

1. Clinical diagnosis? (2)
2. Associated Cutaneous Manifestations? (2)
3. Diagnostic investigations? (2)

Case Analysis:

A 1-year-old boy presents with moon facies, truncal obesity, skin fragility, and facial hypertrichosis, along with a history of frequent topical and IM steroid use for recurrent pruritis.

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### 1. Clinical Diagnosis:

Exogenous Cushing's Syndrome (iatrogenic Cushing's Syndrome) due to chronic corticosteroid exposure (topical and intramuscular).

---

### 2. Associated Cutaneous Manifestations:

Skin atrophy & fragility – Easy bruising, delayed wound healing.

Striae (purple or violaceous) – Commonly over the abdomen, thighs, and axillae.

Facial hypertrichosis – Excessive hair growth on the face.

Acne & folliculitis – Due to steroid-induced sebaceous gland hyperactivity.

Telangiectasia – Increased visibility of capillaries on the skin.

Hyperpigmentation (in ACTH-dependent causes) or hypopigmentation from long-term steroid use.

Increased susceptibility to infections – Due to immunosuppressive effects of steroids.

---

### 3. Diagnostic Investigations:

#### 1. Confirm Hypercortisolism:

Morning serum cortisol & ACTH (low cortisol & ACTH in exogenous Cushing's).

Low-dose dexamethasone suppression test (LDDST) (exogenous steroid use suppresses HPA axis, so no response).

24-hour urinary free cortisol (UFC) (low or suppressed in exogenous cases).

#### 2. Assess Adrenal Function Suppression:

ACTH stimulation test (Cosyntropin test) – Blunted response suggests adrenal atrophy due to prolonged steroid use.

#### 3. Evaluate for Systemic Effects:

Bone mineral density (DEXA scan) – To check for osteoporosis.

Blood glucose & insulin resistance – Steroid-induced diabetes is a concern.

Electrolytes (Na<sup>+</sup>, K<sup>+</sup>), blood pressure – To check for metabolic disturbances.

#### 4. Skin Tests:

Skin biopsy (if needed) to confirm steroid-induced atrophy.

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Management Approach:

Gradual steroid tapering to allow adrenal recovery and prevent adrenal insufficiency.

Supportive care – Nutrition, calcium/vitamin D supplementation.

Education & Prevention – Avoid unnecessary steroid use.



# 1 Treatment

Although there is no cure for osteoarthritis, there are a number of treatment options that will help relieve pain and improve mobility.

## Nonsurgical Treatment

As with other arthritic conditions, early treatment of osteoarthritis of the hip is nonsurgical. Your doctor may recommend a range of nonsurgical treatment options.

Lifestyle modifications. These changes in your daily life can protect your hip joint and slow the progress of osteoarthritis:

Minimizing activities that aggravate the condition, such as climbing stairs

Switching from high-impact activities (like jogging or tennis) to lower impact activities (like swimming or cycling), which puts less stress on your hip

Losing weight, which can reduce stress on the hip joint, resulting in less pain and increased function

Physical therapy. Specific exercises can help increase range of motion and flexibility, as well as strengthen the muscles in your hip and leg. Your doctor or physical therapist can help develop an individualized exercise program that meets your needs and lifestyle.

Assistive devices. Using walking supports like a cane, crutches, or a walker can improve mobility and independence. Using assistive aids like a long-handled reacher to pick up items on low shelves or the floor will help you avoid movements that may cause pain.

Medications. If your pain affects your daily routine, or is not relieved by other nonsurgical methods, your doctor may add medication to your treatment plan.

Acetaminophen (e.g., Tylenol) is an over-the-counter pain reliever that can be effective in reducing mild arthritis pain. Like all medications, however, over-the-counter pain relievers can cause side effects and interact with other medications you are taking. Be sure to discuss potential side effects with your doctor.

Nonsteroidal anti-inflammatory drugs (NSAIDs) may relieve pain and reduce inflammation. Over-the-counter NSAIDs include naproxen and ibuprofen. Other NSAIDs are available by prescription.

Corticosteroids (e.g., cortisone) are powerful anti-inflammatory agents that can be taken by mouth or injected into the painful joint.

## Surgical Treatment

Your doctor may recommend surgery if your pain from arthritis causes disability and is not relieved with nonsurgical treatment.

Total hip replacement. Your doctor will remove both the damaged acetabulum and femoral head, and then position new metal, plastic or ceramic joint surfaces to restore the function of your hip.



Static Station

Station/No: \_\_\_\_\_ Roll No: \_\_\_\_\_

**Scenario:** A 24-year-old young male patient sustains WIA and is brought to A&E Dept where you are on duty. Please look at the X-ray and answer the following questions:

1. What is your diagnosis?

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2. What is the initial management of this condition?

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3. What is the definitive management of this condition?

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## Initial and Definitive Management of Posterior Hip Dislocation

### Initial Management (Emergency Management)

#### 1. Immediate Assessment:

Assess for neurovascular compromise (check sciatic nerve function, distal pulses).

Rule out associated fractures (acetabulum, femoral head, femoral shaft).

Obtain an X-ray (AP and lateral views) to confirm dislocation.

Consider a CT scan if a fracture is suspected or post-reduction evaluation is needed.

#### 2. Reduction (Closed if possible, Open if necessary):

Urgent closed reduction is needed to prevent avascular necrosis (AVN).

Perform under adequate sedation or general anesthesia with muscle relaxation.

Common techniques:

Allis maneuver (patient supine, hip flexed, traction applied in line with deformity).

Stimson technique (prone position, downward force applied to femur).

#### 3. Post-Reduction Assessment:

Confirm reduction with X-ray or CT scan.

Perform neurovascular exam again to assess for sciatic nerve injury.

Immobilization with abduction pillow or knee immobilizer to prevent re-dislocation.

---

### Definitive Management

#### 1. Non-Operative Treatment (If no fractures and stable reduction):

Protected weight-bearing for 4–6 weeks.

Physical therapy to regain range of motion and strength.

Close follow-up with serial imaging to monitor for AVN or post-traumatic arthritis.

## 2. Surgical Treatment (If Indicated):

Open reduction if closed reduction fails.

ORIF (Open Reduction and Internal Fixation) if there is an associated acetabular or femoral head fracture.

Hip replacement (THA) in elderly patients with irreparable fractures or advanced arthritis.

---

## Complications to Monitor

Avascular necrosis (AVN) – Risk increases with delayed reduction (>6 hours).

Sciatic nerve injury – Check dorsiflexion and plantarflexion strength.

Post-traumatic arthritis – Develops in up to 20-50% of cases.

Recurrent dislocations – More common if associated ligamentous injury or acetabular fracture

## STATION 19 :



A 26 year-old female presented with multiple painful erythematous non-ulcerated nodules and plaques over bilateral shins for 5 days. She had a history of sorethroat and cough 2 weeks ago.

### QUESTIONS:

1. Clinical diagnosis? (2)
2. Relevant Investigations? (2)
3. Enumerate treatment options? (2)

### Question 1: Clinical Diagnosis?

The most likely diagnosis is Erythema Nodosum (EN).

The patient presents with painful, erythematous, non-ulcerated nodules on the bilateral shins, which is characteristic of EN.

The recent history of sore throat and cough suggests a possible streptococcal infection, which is a known trigger for EN.

### Question 2: Relevant Investigations?

1. Throat Swab and ASO (Antistreptolysin O) Titer – To check for recent streptococcal infection.

2. Chest X-ray – To rule out tuberculosis or sarcoidosis, which are also associated with EN.

Other possible investigations:

Complete Blood Count (CBC) – May show leukocytosis.

ESR & CRP – Elevated in inflammatory conditions like EN.

Tuberculin Skin Test (TST)/IGRA – To screen for tuberculosis.

Autoimmune markers (e.g., ANA, RF) – If an underlying autoimmune disorder is suspected.

### Question 3: Enumerate Treatment Options?

1. Supportive Care:

Rest and leg elevation to reduce swelling.

Compression stockings to relieve pain.

2. Medications:

NSAIDs (e.g., Ibuprofen, Naproxen) – First-line for pain and inflammation.

Corticosteroids (if severe or persistent cases) – Only after ruling out infections like TB.

### 3. Treat Underlying Cause:

If streptococcal infection is confirmed → Penicillin or Amoxicillin.

If associated with tuberculosis → Anti-TB therapy.

If due to sarcoidosis or inflammatory diseases, manage accordingly.



A 50 years old gentleman has presented with sudden onset pain in his right foot for the last 6 hours. He has had 3 similar episodes of pain in right foot in last 12 months. He is taking Lisartan, Hydrochlorothiazide and Aspirin for hypertension.

- |             |  |   |
|-------------|--|---|
| Question 1: | What is most likely diagnosis?           | 2 |
| Question 2: | Enumerate any 2 relevant investigations. | 2 |
| Question 3: | Enlist the steps of management.          | 2 |

Question 1: What is the most likely diagnosis?

The most likely diagnosis is Gout (Acute Gouty Arthritis).

The patient presents with sudden onset pain in the right foot, which is a classic feature of acute gout.

The recurrent episodes in the past year further support this.

Hydrochlorothiazide, which the patient is taking for hypertension, is known to increase uric acid levels and can precipitate gout.

Question 2: Enumerate any 2 relevant investigations.

1. Serum Uric Acid Levels – Elevated uric acid supports the diagnosis, although normal levels do not rule out an acute attack.

2. Synovial Fluid Analysis – Polarized light microscopy shows negatively birefringent needle-shaped crystals, confirming gout.

Other possible investigations:

Complete Blood Count (CBC) – May show leukocytosis.

X-ray of the affected joint – May show soft tissue swelling or chronic changes in recurrent cases.

Question 3: Enlist the steps of management.

1. Acute Attack Treatment:

NSAIDs (e.g., Indomethacin, Naproxen) – First-line for pain relief.

Colchicine – Can be used if NSAIDs are contraindicated.

Corticosteroids (oral or intra-articular) – For patients who cannot tolerate NSAIDs or colchicine.

2. Long-term Management & Prevention:

Lifestyle Modifications: Avoid alcohol, red meat, and high-purine foods.

Stop Hydrochlorothiazide (replace with another antihypertensive like losartan, which may lower uric acid).

Urate-Lowering Therapy (ULT) (if recurrent or severe):

Allopurinol or Febuxostat (to lower uric acid levels, started after the acute attack resolves).

Probenecid (if uricosuric therapy is needed).























