
PEDIATRICS OSCEs REVISION
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OUTLINE

- GENERAL EXAM
- CENTRAL NERVOUS SYSTEM
- CARDIOVASCULAR SYSTEM
- RESPIRATORY SYSTEM
- THE ABDOMEN
- NEONATALOLOGY
- SPECIMENS
 - Laboratory: blood, LP; Radiological: CXR, IVU, MCU, CT scan of brain; Photographs with clinical diagnoses; Intraosseous line (procedure); IV cannulation; BP checking
- COMMUNICATION SKILLS: INFORMED CONSENT,
- VACCINES

Examine the lymph nodes of the head & neck

- Check whether there is lymphadenopathy & the overlying skin (scars, erythema, rashes)
- Palpate from behind the patient
- Look for: From in front: submental, occipital, anterior & posterior cervical chain, posterior auricular, pre – auricular, submandibular
 - Do for both right & left
- Accurately palpate using pulp of finger & not tips
- Roll the LNs over the muscle or bones to feel them

CONT.

- Accurately comment on:
 - Size
 - Tenderness
 - Consistency
 - Mobility
 - Tethering to underlying structure
 - Matted or discrete



THE CENTRAL NERVOUS SYSTEM

FAQS

- Cranial nerves
- LL weakness
- Reflexes
- Motor exam
- Sensory exam

1. Child with a history of weakness

- Do a **motor exam** of the lower limbs
 - Professional etiquette: greet the patient, introduce yourself & explain to them what you want to do.
 - Stand on the **right side of the patient**.
 - Motor examination:
 - Inspect & comment on: **posture & muscle bulk (visible wasting)**
 - Assess **tone** across ALL THE JOINTS.
 - Assess **power** across ALL MUSCLE GROUPS.
 - Assess **reflexes** (knee jerk, ankle reflex, ankle clonus, plantar reflex/ Babinski response)

Motor examination of the upper limbs

- Professional etiquette.
- Stand on the **right side of the patient**.
- Inspection: posture of upper limbs, visible wasting (comment appropriately)
- Palpate: muscle bulk
- Tone: across all joints
- Power in all muscle groups
- Reflexes: biceps, triceps

Name 3 contraindications of a lumbar puncture

- Increased ICP
- Coagulopathy
- Soft tissue infection at site of LP
- Cardiopulmonary instability

2. Interpret the following LP findings in a patient with a chronic headache

- Protein in g/L: 0.5
- Glucose in mmol/L: 1.6
- CSF: Serum ratio is <0.4
- WBCs: 180
- Appearance: fibrin webbed

Differentials: TB meningitis, fungal meningitis

What is the treatment plan

- Working diagnosis: Tuberculous meningitis
- 2RHZE + 10RH
- Steroid therapy

3. The following child presented at pediatric casualty after falling from a motor cycle. Examine cranial nerves V & VII

Trigeminal nerve (V₁, V₂ & V₃)

- Examine for light touch, pain & temperature in all 3 nerve distributions: forehead, cheek & jaw
- Inspect & palpate the masseter & temporalis muscle
- Test for power of the masseter muscle: oppose jaw opening
- Test right & left pterygoids muscle power: oppose lateral jaw movement
- Corneal reflex

Cont.

Facial nerve

- Frontalis: ask patient to raise eyebrows
- Orbicularis oculi: ask patient to tightly close eyes then you try & open them
- Ask patient to smile & frown
- Ask patient to puff the cheeks & try to deflate them
- Test taste on the anterior $\frac{2}{3}$ of the tongue

NOTE:

- For OSCEs purposes, the following are **MUST KNOWS**:
 - Cranial nerves II, III, IV, V, VI & VII Know: 2, 3, 4, 5, 6, 7

Child presents with unexplained lower limb (LL) weakness.
Examine the deep tendon reflexes (DTR) on the LLs.

- Professional etiquette.
- Examine both the right & left DTRs.
 - **Knee reflexes:** slightly lift the leg under the knee or perform the test in a sitting position with the leg dangling. Identify & tap the patella & check the ***CONTRACTION OF THE QUADRICEPS.***
 - Remember to perform the **Jendrassik's maneuver**
 - **Ankle reflexes:** slightly extend the hip & dorsiflex the foot

Assume this child was alert, normal upper limbs, weakness of LL & increased DTR, what are your differentials?

- Tumor (SOL)
- Schistosomiasis
- TB spine

Child admitted with a 2 day history of LOC, fever & an episode of convulsion lasting 3 minutes

- Assess the LOC of this child & interpret your findings.
 - Do a pediatric GCS scoring.
 - Give the scores for E, V & M (correctly report the findings & interpret them)
 - Comment on the final GCS

Based on the given history give the most likely diagnosis (ALWAYS GIVE A JUSTIFICATION)

- Complicated meningitis: convulsions, fever, LOC & duration
 - The LOC isn't convulsion – induced hence it is not a febrile seizure but a more ominous condition.

Differentials

- CVA
- Meningoencephalitis
- Cerebral malaria

What is the difference between an UMN & LMN facial nerve palsy

- UMN:
 - Spares the brow muscles
 - Spares eye closing

This child has undergone removal of a craniopharyngioma/
Examine cranial nerves II, III, IV & VI

Optic nerve

- Distant vision using Snellen's chart (Distance from child → 1 m away)
- Color sense using Ishihara chart
- Visual field assessment
 - How far from you: _____
 - Where to place finger: _____
- Direct & consensual pupillary reflex

Cont.

Oculomotor nerve

- Upward rotation & inward movement of eye ball
- Size of pupil
- Assess for accommodation

Trochlear

- SO₄
- Downward movement of eyeball

Abducens

- Lateral movement of eyeball

Differentials of a child with flaccid paralysis:

- Polio
- Transverse myelitis
- GBS

Investigations for the child with flaccid paralysis

- MRI/CT scan spine: to R/O any structural problem in the motor area of spinal cord.
- Nerve conduction studies to determine peripheral neuropathy.
- Stool for polio virus.



THE CARDIOVASCULAR SYSTEM



Examine the precordium of this child while narrating your findings

- Professional etiquette.
- Stand on the right side of the patient.
- Commence P/E.
 - Expose child adequately
 - Inspection (accurately report): hyperactive, left parasternal heave
 - Palpation: apex beat (*find out how it is done*)
 - Auscultation: apex, aortic area/ mitral area, pulmonary (second heart sound), tricuspid area

Cont.

- What is the clinical diagnosis of this child giving reasons? _____
- **TIPS:**
 - **Apex beat:** this is the lower most outermost point of definite cardiac impulse.
 - Enumerate the ribs using the palm of the finger & not pointing.

Examine the neck of this patient for Jugular Venous Pulse

- Patient reclined at 45⁰
- Look for pulsation on the right side of the neck
- Press on RUQ while watching neck to differentiate between carotid artery & JVP pulsation
- Identify JVP at the highest point of pulsation
- Extend ruler horizontally from the highest pulsation point
- This ruler must cross with a ruler placed at the sternal angle of Louis at 90⁰
- Report the measurement in cm
- Add 4cm to get the distance to the right atrium
- Report the JVP

Features that distinguish arterial & venous pulses

Carotid arterial pulses

- Pulsation per heart beat.
- Palpable.
- Pulsation height:
 - Unaffected by the hepatojugular reflux.
 - Independent on the position of the patient.
- Not dependent on respiration.
- Unaffected by pressure at the root of the neck.

Jugular venous pulses

- Double pulsation per heart beat.
- Not palpable.
- Pulsation height:
 - Increased due to hepatojugular reflux.
 - Varies with position of the patient.
- Decreased on inspiration.
- Obliterated by pressure at the root of the neck

Possible causes of a raised JVP

- CCF
- Cor pulmonale
- Constrictive pericarditis
- Pulmonary embolism
- Cardiac tamponade
- Tricuspid valvular disease
- SVC obstruction
- Iatrogenic fluid overload

Measure the BP (sphygmomanometer)

- Professional etiquette.
- Measure the circumference of the upper arm, identify the right cuff & fit it.
- Palpate the radial artery.
- Pump up to 20mmHg above when you last felt pulse on palpation.
- Reduce pressure by 2mm Hg/s while auscultating brachial pulse
 - When you start hearing it: systolic BP
 - Continue until you don't hear it: diastolic BP

Investigations in a child with HTN

- UECs: abnormal kidney function can cause HTN
- Potassium levels: potassium levels in Conn's syndrome (hyperaldosteronism)
- 4 limb BP for vascular disease
- Serum renin levels
- Doppler U/S of kidneys: renal artery disease
- 24hr urinary VMA for Pheochromocytoma
- **OVERALL ASSESSMENT**

Management of CCF

- Prop up the patient.
- Administer oxygen if in distress.
- Medical:
 - For ↓ preload: diuretics
 - For ↑ cardiac contractility: digoxin
 - For ↓ afterload: CCBs
- Treat underlying problem

Examine the pulses & narrate your findings

- Radial pulse rate for a *full minute*
 - Describe rate, rhythm, volume, character, symmetry & radio – femoral delay (*coarctation of aorta is a diagnosis made at birth!*)
- Brachial pulse
- Carotid pulse
- Popliteal
- Dorsalis pedis artery
- *Confirm posterior tibial artery*

Name 3 clinical conditions with a collapsing pulse

- Aortic regurgitation
- Hyper – dynamic circulation:
thyrotoxicosis, beriberi
- PDA
- Large AV communication

15 month old child brought to casualty poor feeding, poor weight gain & recurrent infections. Breast feeding was stopped at 6 months & supplemented with cow's milk

- Lab test:
 - RBCs 3.9 → low
 - WBCs: 13.6 → high
 - Hb: 8 → low
 - MCV: 65
 - MCH: 19
 - MCHC: 22
 - Platelets: 203
- Hypochromic microcytic anemia

Cont.

- Most important differential: IDA
 - Others: Anemia of chronic disease; sideroblastic anemia; lead poisoning; thalassemia
- Underlying cause:
 - Helminthic infections
 - Diet

Cont.

■ Treatment:

- Elemental iron 6mg/kg/day for 4 – 6 months
- To replenish stores
- Stages of iron deficiency:
 - 1. RES stores are depleted.
 - 2a. MCV, MCH reduce.
 - 2b: Hemoglobin reduces.
 - 3. Clinical manifestations



THE RESPIRATORY SYSTEM

This child presents with fever, cough & DIB for 3 days. Examine the respiratory system by inspection, percussion & auscultation.

- Inspection:
 - Count & estimate RR; FAN; listen for audible sounds (grunting, stridor, wheeze)
 - Observe for intercostal, suprasternal & supraclavicular in – drawing; look for abdominal breathing
 - Cyanosis (central & peripheral), pallor, head nodding, finger clubbing
- Percussion: All areas & report findings correctly
- Auscultation: Listen to breath sounds & check for vocal fremitus

Comment on the following findings in a tachypneic child:

- pH: 7.04 (7.35 – 7.45) → low; acidosis
- PO₂: 80mmHg (60 – 80mmHg) → normal; not respiratory acidosis
- PCO₂: 6mmHg (40 – 60mmHg) → low; respiratory compensation
- HCO₃⁻: 6mmol/L (22 – 24 mmol/L) → low; metabolic acidosis
- Na⁺: 140 → normal
- Cl⁻: 108 → normal

Cont.

- Conclusion: metabolic acidosis with respiratory compensation
- Add: *you must do anion gap*
 $\{Na^+ - (Cl^- + HCO_3^-)\}$ &
comment on it:

Common causes:

- Poisoning
- DKA
- lactic acidosis
- Uremia
- Pancreatitis

The following is a radiological specimen of a 2 year old child with fever, cough & progressive DIB

- Name the radiological specimen completely e.g. ***CHEST X RAY as opposed to X ray; remember to comment on the view.***
- Quality: Rotation, Inspiration, Penetration
- Skeletal thoracic cage
- Lung findings
- Cardiac silhouette
- Heart size: CTR
- Diaphragm

Treatment plan for above child (*write on Treatment sheet*)

- Classify: e.g. severe etc.
- Oxygen administration (method plus flow rates)
- Penicillin & gentamicin: dosages & duration are **MUST KNOWS**.
- Feeding & fluids

**This evaluation was performed on a refugee camp on
a patient with persistent cough & fever**

Write out a report of this specimen

- State that it is a CHEST X RAY
- Quality
- Skeletal cage
- Lung fields: multiple, widespread opacities
- Heart size
- Diaphragm
- Diagnosis: Miliary TB

Treatment of TB

- Intensive phase → 2 months; RHZE/
RHZS
- Continuation phase → 4 months: RH
- Nutrition
- Any other infection
 - Do PITC

Child with fever, cough & DIB for 3 days associated with poor feeding

- Examine the respiratory system through inspection & relevant GE for purposes of determining the severity of the disease
- Outline:
 - Diagnosis
 - Classification
 - Definitive treatment: O₂ therapy, penicillin & gentamicin (KNOW DOSAGES)

Previously well child with cough & fever for 1 day, DIB

- General exam relevant to respiratory system: include lymphadenopathy
- Highest priority investigations:
CXR, HIV test, BGAs
 - HIV test because of recurrent
LRTI

Pneumothorax

- CXR: collapsed lung, mediastinal shift, gas in pleural cavity
- Management:
 - Chest tube insertion
 - Underlying pathology
 - Taking care of nutrition

This child is being managed for ascites.

Examine for ascites.

- Professional etiquette + warming your hands
- Expose adequately
- Inspection:
 - Stand at the foot of the bed to accurately assess abdominal fullness, symmetry.
 - On right side of patient: Accurate assessment of umbilical stump, look for scars, superficial venous distention
- Palpation: (warming your hands before touching the patient then remember to look at the face of the patient)

Confirm with Hutchisons

Shifting dullness: for moderate ascites:

- Start percussing (the middle phalanx; pleximeter; place your finger **along the long axis** of the patient) in the midline of the abdomen & move towards one end. You expect tympanitic sound to become dull at the point there is a fluid level; when you get the point, the finger shouldn't move; ask the patient to turn to the opposite side*** & percuss the same point you **

Fluid thrill: in severe ascites

- Ask someone to dampen the sound for you by placing a hand on the abdomen
- Tap on the proximal flank
- Palpate on the distal flank
- Comment appropriately on the finding

Differentials

- Liver disease
- Renal disease: nephrotic syndrome
- Protein losing enteropathy
- Abdominal malignancy
- Portal HTN

This child presents with abdominal distention for the 1st 3 months.

- Active and playful but poor feeding habits
- Inspect & palpate abdomen
- 2 most important differentials based on imaging modality provided (CXR with fecal loading & hepatomegaly)
 - Constipation & hepatomegaly

Cont.

- Bedside manner
- Ensure comfort is adequate + appropriate exposure
- Inspect the abdomen & give findings
- Palpation: before starting ask for any abdominal tenderness; look at the face of the patient (light & deep) various quadrants & be systematic; look for spleen & liver
 - Don't forget the inguinal region for nodes & testes in males.

Abdominal pain

- This 6 year old boy is brought to the casualty with abdominal pain for the past month. He passes stool once a week & his stool looks like hard pellets. Take additional relevant history from the guardian to help you reach a diagnosis (constipation, food allergy esp. cow milk food allergy).

Relevant history

- Does the child soil his pants lately
- Has the child attained toilet training (encopresis)
- Any pain while passing stool
- Blood on the surface of hard stool
- Any vomiting
- Abdominal swelling
- Questions of water intake
- Questions on dietary intake
- Similar family history
- Explore psychosocial factors
- Any allergy to cow's milk & dairy

How would you manage this condition

- Fluids
- Diet: fiber rich fruits & vegetables
- Activity: physical activity
- Toilet training (regular sitting on the toilet for long enough; steps to ensure proper seating)
- Reassure parents & advice the to stay calm
- Address any psychosocial issues
- Medical: laxatives, peglec

Palpate the abdomen of this child.

- Professional etiquette
- Stand on right side
- Expose adequately & appropriately
- Ask for abdominal tenderness
- Light & deep palpation *while looking at the patient's face.*
- Liver, spleen & bimanual palpation of the kidneys.

6 year child; history of vomiting blood; scheduled for Upper GI endoscopy

Take a focused history

- Professional etiquette
- General condition of child
- Hematemesis: onset, frequency, volume, color (frank blood or coffee ground), melena stool, prior episodes of episodes preceding the hematemesis (retching resulting in Mallory Weis tear), pre – existing conditions (liver pathology, PUD, GERD, Bleeding tendencies, drug history – steroids; NSAIDs)

Take informed consent for this procedure

- Benefits:
 - It will identify the source of bleeding
 - A sample can be taken
 - Can be therapeutic: allowing direct arrest of the bleeding & direct treatment e.g. sclerotherapy or banding in variceal bleeding
- Risks:
 - Procedural risks: Further bleeding, Perforation
 - Anesthetic risks:
- Alternatives: Trial or symptomatic treatment
- Ask whether there are any questions, whether they understand
- Thank the patient



NEONATOLOGY

Neonatal resuscitation

- You are called in the labor ward to resuscitate a term baby born via SVD; doesn't cry when born; no meconium staining of liquor; resuscitate baby & ask for responses at every stage.

Refer to protocol

- Examine at 1, 5 minutes
 - If there's MSAF, ***FIRST ACTION IS TO SUCTION THE AIRWAY.***
- Dry & stimulate the baby while examining for color, tone, breathing & activity
- Open airway using chin lift maneuver
- Look listen feel for breathing... *proceed as in protocol.*

Explain plan of management to the nurse as resuscitation reaches 5 minutes

- Cover up the baby for warmth.
- Give it to the mother once the baby is stable for rooming in.

Delivery of a term neonate cause of sever fetal bradycardia

Equipment check

- Firm surface & heater (radiant warmer or resuscitairre with a heater)
- Source of Oxygen & oxygen delivery devices
- 2 cloths (wiper & wrapper)
- Functioning ambu bag (confirm it is functioning)
- Face mask of the right size (covering nose up to level of chin & not to eyes)

Cont.

- Working suction apparatus
- Different size catheters
- Laryngoscope and appropriate blades
- Gloves
- Different sizes of ET tubes & tapes
- Guedel airway

A 4 day old neonate was admitted because of yellowness of skin

Relevant questions to reach a diagnosis

- GA
- Onset of jaundice & How it progressed
- Irritability
- Fever
- Abnormal cry

Cont.

- Refusal to feed
- Convulsions
- Maternal blood group
- Maternal infection: TORCHES
- Previous history of a baby with jaundice
- Any inherited conditions like G6PDH deficiency

Clinically observe & comment on the baby (do not touch the baby)

- Color: jaundiced?
- Activity
- Posture
- Size of baby
- Any obvious dysmorphic features
- Any obvious rashes
- Any obvious respiratory distress

List 5 investigations you would do for this indication

- FBC
- PBF & Reticulocyte count
- DCT
- Blood group (of both mother)
- TSB & direct bilirubin (LFTs)

How to work out investigations for NNJ

- It is either indirect or direct hyperbilirubinemia so to differentiate:
 - **TSB & direct bilirubin**
- If indirect hyperbilirubinemia differentiate between hemolytic & non – hemolytic causes by: Reticulocyte count, **PBF & DCT**

A 16 hour term new born in nursery is noted to have jaundice

- What are the 10 most important questions you would like to ask the mother:
 - To do with the child: Onset & progression (don't belabor), Ability to BF, history of fever, lethargy, convulsions, delayed cry.
 - To do with mother: history of prolonged labor, antenatal history of infection in mother (ask about fever, discharge), PROM; Blood group of mother; previous baby with jaundice; GA; Birth weight

2 day old baby is brought to casualty and reported to be unwell. List 10 important questions you would ask.

- Changes in levels of activity
- Ability to BF
- History of fever in baby
- History of lethargy & convulsions
- Prolonged labor/ delayed cry

Cont.

- Antenatal history of infection in mother
- History of Prolonged ROM
- Place & mode of delivery
- Maternal fever in labor
- Gestation at delivery (preterm or term)
- DIB, cyanosis, LCWI, jaundice

Given a prenatal diagnosis of extreme preterm, what are the slight differences in immediate management of the infant?

- Warmth:
 - Cover the baby with some cotton wool.
 - You can use your face mask to make the baby a hood for the head.
 - Place baby in a plastic bag.
- In congenital diaphragmatic hernia: Avoid BVM & intubate immediately.



SPECIMENS

Intraosseous line insertion

- 10 month old infant has history of diarrhea & vomiting & ins now lethargic on examination was found to be sickly, CRT of 5 seconds, IV cannulation failed, explain the process of your intervention giving details:

Procedure

- **Greet** patient & parent & explain what you are going to do & why
- **Locate** site: proximal tibia (2cm below tibial tuberosity & 1cm medially)
- **Cleanse** site with betadine or surgical spirit
- **Hold** the leg with the non – dominant hand
- **Insert needle slowly & steadily** until there is a **give**
- Withdraw stylet once catheter is inside
- Confirm with saline 10ml/kg
- Remove samples for U/E/Cs, RBS, FBC
- Stabilize IO line with a tape

Name 3 complications of the procedure

- Extravasation
- Osteomyelitis
- Compartment syndrome

Growth chart

- Describe growth pattern.
 - E.g. grew well for a particular duration then lost weight for a particular duration (*simply describe what you see & remember to STATE THE BIRTH WEIGHT.*)

Strategies needed to prevent such growth: Growth faltering
(Identify the growth faltering between the stated duration & mention the age of onset & duration of faltering)

- **BF:** start at birth, EBF for the 1st 6 months; continue for at least 2 years
- **Complementary feeding:** start at 6 months; animal proteins; 4 feeds per day
- **Good maternal nutrition**
- **Reduce impact of illness:** early identification of illness & appropriate treatment
- **Family:** increase birth spacing, reduce the size of the family, increase family income
- **Education:** Health worker, Family, Community

Interpret the radiological image provided & asses as follows

- Name the specimen as Chest X – Ray & state the view. Evaluate lung fields & airway & give findings
- Interpretation:
 - Verify the biodata
 - Quality: R (clavicle or anterior rib length); I (count the ribs); Penetration.
 - Look at right lung; left lung
 - Pleural borders
 - Costophrenic angles
 - Cardiophrenic angles
 - Hilar regions
 - Tracheal position
 - State diagnosis & differentials

Anthropometric measurements

- Take MUAC of this child (*review procedure*)
 - Acromion & olecranon fossa.
 - Non – dominant arm in flexed position when measuring.
- What is nutritional status.
- Interpret provided growth curve in 1st year.

SPECIMEN

- Chicken pox
 - E.g. widespread rash on the face & neck on different stages (papules, vesicles, crusts etc.)
- 4 complications:
 - Skin & soft tissue infection
 - Encephalitis
 - Pneumonia
 - Otitis media
 - hepatitis
- Management:
 - Prevention: Varicella zoster vaccine
 - Supportive: well hydrated, antipyretics (paracetamol), antipruritic (calamine lotion), antihistamine, treat secondary infection with antibiotics
 - Actual: acyclovir



COMMUNICATION SKILLS

You are called to see a child in the post – natal clinic with a TS whose mother complains she has insufficient milk & pain around the nipples when breastfeeding

- Comment on the position of the mother & baby
 - Comment on position of mother & baby:
bending towards baby & baby's ventral surface was not touching mother's ventral surface;
mother wasn't **supporting** the whole body;
baby wasn't facing breast; nose is not at level of nipple.

Explain to the mother how to breastfeed

■ Procedure:

- Commend the mother for breastfeeding
- Hold baby & latch baby properly to avoid pain on BF

Cont.

■ Technique

- Mother's comfort: Back supported at the back; she can use a pillow or the back of the seat can suffice.
- Position baby: nose at level of mother's nipple (put a BF pillow, place foot on BF stool to bring thigh up); tummy to tummy of baby & mother; baby facing nipple; mother supports baby's body; body & head on straight line
- Appropriate grip
- How to make baby open mouth: touch baby's upper lip with nipple
- Once baby opens mouth wide
- Explain how to introduce breast into mouth by baby having a large chunk of breast in mouth & pulling baby towards her
- Commend mother for seeking help about her problems

Image of a child with head light sign.

- Child with itchy skin lesions since they were 1 year old:
 - Diagnosis & justification: atopic dermatitis/ eczema: describe the lesions
- Management
 - Elimination of allergens heat, low humidity
 - Treatment of superinfections: antibiotics covering *S. aureus*
 - Keep skin hydrated
 - Topical steroids
 - Other drugs e.g. topical tacrolimus
 - Reduce pruritus with an antihistamine

Image of child with skin lesions & koplik spots

- Child in the picture above reported that skin lesions started appearing 3 days earlier. There is a history of fever & cough; other children have a similar condition.
- Diagnosis: clinical diagnosis of measles based on maculopapular rash & Koplik spots & other children have

Community level risk factors (name & explain):

- Low immunization coverage → low community protection, i.e., low herd immunity
- High undernutrition rates → leading to large numbers of susceptible population
- Low socioeconomic status → leading to difficulty in accessing preventive services
- Inadequate immunization health systems in the community → difficulties accessing services

Talk to a mother whose baby has a life threatening congenital heart disease that is potentially treatable. Discuss the situation with the mother

- Professional etiquette
- Introduce situation to mother:
 - Baby was not properly formed; we are not sure of positive cause yet; we will however do our best to take care of baby; explain need for several investigations & other specialist (multidisciplinary); there are good chances for cure; with surgical care the child can heal completely but requires long term follow up; may recur in subsequent pregnancies so let's monitor them
- Talk about expectation for baby
- Allow mother to ask questions

PMTCT

- Mother at ANC referred by obstetrician having being diagnosed of HIV; counselled & informed of her diagnosis; plan of feeding for baby giving reasons; plan for follow up investigations giving timing & reasons

Plan of feeding

- Professional etiquette
 - For HIV, make her sit down
 - Appropriate position & mannerisms (even you sit down in an appropriate way)
 - Confirm with the mother that she understands about the HIV & let her talk
 - Give options of feeding
 - EBF for 6 months or No BF (never do mixed feeding)
 - Advice on replacement feeding (AFASS criteria)
 - Risks of 2 methods (BF & RF)
 - Risks of mixed feeding
 - Remind about prompt onset of complementary feeding
- Make sure mother understands the plan; make her review it
- Give opportunity to ask questions & make her choice

Testing

For baby

- HIV DNA PCR for baby at birth, at 6 weeks, at 6 months, at 12 months.
- ELISA antibodies at 18 months.
- If infected: start ART
- Give NVP/AZT for 6 weeks; then continue NVP for an additional 6 weeks

You've been asked by the obstetric team to talk to a newly diagnosed HIV+ mother in preterm labor at 24 weeks

- Explain to mother immediate risks to the baby in lieu of the above history:
 - **Immediate risks to baby:**
 - Newly diagnosed → high viral load
 - Mother has not been on drugs
 - Instrumentation during labor → increased risk of transmission
 - There will be need for resuscitation for the baby born preterm → transmission
 - Risk arising from prematurity → RDS, NNS, IVH, feeding difficulties
 - **Long term complications:**
 - Chronic lung disease & subsequent respiratory insufficiency
 - Growth & developmental delay
 - High mortality rate both in the neonatal period & early childhood.

Advice for subsequent pregnancies

- She uses ART long before she conceives to maintain the viral load low
- Planned pregnancies
- ANC follow up do to the high risk of another PTL & due to her HIV

A mother has been diagnosed with HIV plan of feeding for baby , follow up & investigations giving time periods.

- For feeding:
 - Professional etiquette
 - Confirm mother understand HIV status impact on the baby
 - Give options of feeding: replacement or EBF
 - Talk about risks of transmission comparing the 2
 - Talk about risk associated with mixed feeding
 - Talk about complementary feeding
- Investigations: at birth, 6 weeks, 6 months & 12 weeks PCR; ELISA at 18 months

Results of a 9 month old child

- Brought in very sick
- No urine output for 2 days
- Height is 70cm
- Write out interpretation of result
- How do you manage the most potentially lethal electrolyte imbalance

Cont.

- Specimen

- Urea → high

- Sodium → low

- Potassium → High

- Chloride

- Creatinine

- Bicarbonate → low (metabolic acidosis)

- Estimate the GFR (Schwartz Estimate Equation): $\frac{\text{Height X k}}{\text{Serum creatinine}}$

Manage hyperkalemia

- Stop any intake of potassium
- Dextrose/ IV insulin IV: to promote intracellular movement of potassium ions
- Nebulize salbutamol
- Calcium gluconate
- Resonium
- Bicarbonate

Indications of dialysis

- Severe hyperkalemia
- Uremia
- Severe intractable metabolic acidosis
- Fluid overload

ENDOCRINOLOGY

- READ AROUND:
 - AMBIGUOUS GENITALIA
 - PRECOCIOUS PUBERTY

TYPED BY EFFIE NAILA

For I know the thoughts & plans that I have for you, says the Lord, thoughts & plans for welfare & peace & not for evil, to give you hope in your FINAL OUTCOME.

Jer. 29:11, AMP.