DR SD CLINICALS – PAEDIATRICS CASES HISTORY POSTINGS – 3RD YEAR – MBBS

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Paediatrics Clinical Schedule

24-11-2025 (Monday) – Cyanotic Heart Disease – TOF
25-11-2025 (Tuesday) – Acyanotic Heart Disease – VSD
26-11-2025 (Wednesday) – Rheumatic Fever / Rheumatic Heart Disease
27-11-2025 (Thursday) – ARI Control Programme and Pneumonia

01-12-2025 (Monday) – Pneumonia
02-12-2025 (Tuesday) – Acute Diarrhea
03-12-2025 (Wednesday) – Nephrotic Syndrome
04-12-2025 (Thursday) – Nephritic Syndrome
05-12-2025 (Friday) – Anaemia / Jaundice with Hepatosplenomegaly

08-12-2025 (Monday) – Cerebral Palsy

10-12-2025 (Wednesday) – Severe Acute Malnutrition
11-12-2025 (Thursday) – Newborn / Newborn Jaundice
12-12-2025 (Friday) – Fever with Hepatosplenomegaly

15-12-2025 (Monday) – Cerebral Palsy

17-12-2025 (Wednesday) – Simple Febrile Seizure
18-12-2025 (Thursday) – Bronchiolitis

PAEDIATRICS CASE SHEET – MBBS

1. Personal Data

- Name:
- Age:
- Sex:
- Address:
- Date of admission:
- Informant and reliability:
- OP/IP number:

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2. Presenting Complaints

1. _____ duration _____
2. _____ duration _____
3. _____ duration _____

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3. History of Present Illness (HOPI)

- Child was apparently normal until _____ (age) when _____ symptoms started.
- Onset: acute / insidious
- Course: progressive / intermittent / static
- Detailed chronology of symptoms:
  - Symptom 1: onset, duration, progression, aggravating and relieving factors
  - Symptom 2:
- Associated symptoms: fever, cough, breathing difficulty, rash, convulsions, vomiting, diarrhea etc.
- Functional impact: feeding difficulty, exercise intolerance, reduced activity, lethargy, irritability
- No history of trauma, foreign body aspiration, poisoning (if applicable)
- Treatment taken prior to admission

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4. History of Past Illness

- Previous similar episodes: yes/no
- Recurrent respiratory infections:
- History of hospitalisations:
- History of tuberculosis/contact:
- Any chronic illness: asthma, congenital heart disease, epilepsy, renal disorders
- Surgical history:
- Drug allergies:

5. Antenatal History

- Mother's age and parity
- Number of ANC visits
- Antenatal scan findings
- Maternal illnesses: hypertension, diabetes, anemia, infections
- Drugs taken during pregnancy
- Exposure to radiation, smoking, alcohol
- Obstetric complications: PIH, PROM, bleeding, poly/oligohydramnios

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6. Natal (Intranatal) History

- Term / preterm
- Mode of delivery: NVD / LSCS / assisted
- Indication for LSCS (if applicable)
- Place of delivery
- Birth weight
- Cry at birth: immediate / delayed
- APGAR score (if available)
- Need for resuscitation
- Complications during labour or delivery

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7. Postnatal History

- NICU admission: yes/no, reason
- Feeding initiation time
- Jaundice, sepsis, birth asphyxia, respiratory distress
- Development during neonatal period

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8. Immunisation History

- As per National Immunisation Schedule: up to date / delayed
- Vaccines received: BCG, Hep B, OPV, Pentavalent, PCV, Rota, MR, DPT booster etc.
- Additional vaccines (if any): Typhoid, Influenza, Varicella
- Previous adverse reactions to vaccines:

National Immunization Schedule

Table 3.1 National immunization schedule

Age	Vaccine
At birth, before discharge from the hospital (usually 3 days)	BCG (0.05 mL intra dermal is the recommendation up to 1 month of age, but uniformly 0.1 mL for all ages is also acceptable), OPV ("zero dose") and HBV (within 24 hrs)
1½ months or 6 weeks	Pentavac 1 (DPT, Hib, HBV), OPV 1, f IPV 1 (0.1 mL intradermal), PCV 1, Rota 1.
2½ months or 10 weeks	Pentavac 2, OPV 2, Rota 2
3½ months or 14 weeks	Pentavac 3, OPV 3, f IPV 2, PCV 2, Rota 3
9 months (completed)	MR 1, f IPV3, PCV 3, JE 1 (only in endemic areas)
1½ years or 18 months	DPT (1st booster), OPV (1st booster), MR 2, JE 2 (only in endemic areas)
5 years	DPT (2nd booster)
10 years and 16 years	One dose of Td each HPV vaccine for 9–14 yr aged girls will soon be introduced

It's easy to remember as Penta, OPV & Rota at 6, 10 & 14 weeks. f IPV & PCV at 6 & 14 weeks and 9 months. MR and JE at 9 & 18 months. At 18 months DPT & OPV booster and at 5 yr only DPT booster.

For defaulters, BCG is advised up to 1 year of age and DPT up to 7 years of age.

9. Developmental History

Gross Motor

- Head control, sitting, standing, walking milestones

Fine Motor

- Reaching, grasping, object transfer

Language

- Cooing, monosyllables, bisyllables, meaningful words, sentences

Social/Adaptive

- Social smile, stranger anxiety, interactive play
- Any delay: yes/no
- Growth chart percentiles: ht, wt, HC

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10. Dietary History

- Feeding during infancy: exclusive breastfeeding / mixed feeding / formula
- Weaning age and type
- Current diet: frequency, quantity, quality
- 24-hour dietary recall
- Appetite: good / fair / poor
- Feeding difficulty: choking, fatigue, refusal
- Any food intolerance

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11. Family History

- Family structure: joint / nuclear
- Any hereditary / genetic diseases:
- History of similar illness in siblings
- Consanguinity: yes/no
- Birth order

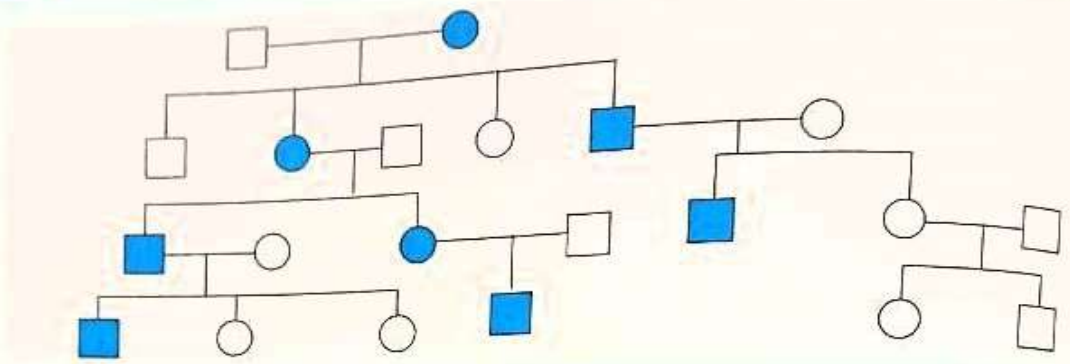

Fig.3.1 Autosomal dominant inheritance

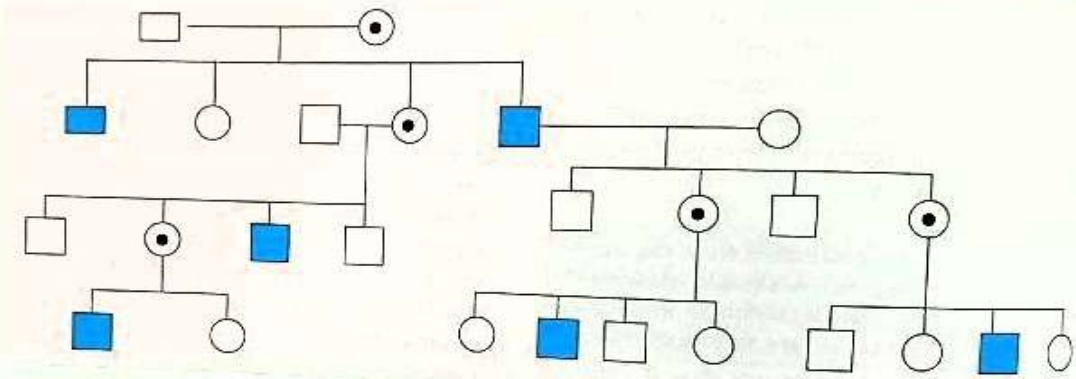

Fig.3.2 X-linked recessive inheritance

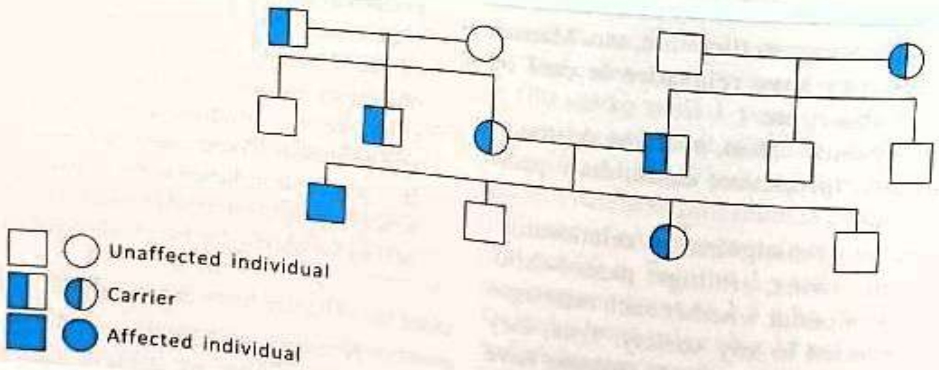

Fig.3.3 Autosomal recessive inheritance

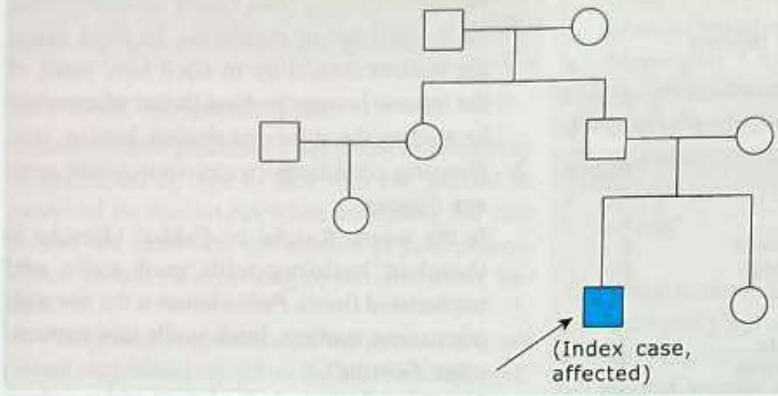

Fig.3.4a Sample drawing of pedigree chart

Symbols used in Drawing a Pedigree Chart *(Courtesy: Dr Sankar VH)*

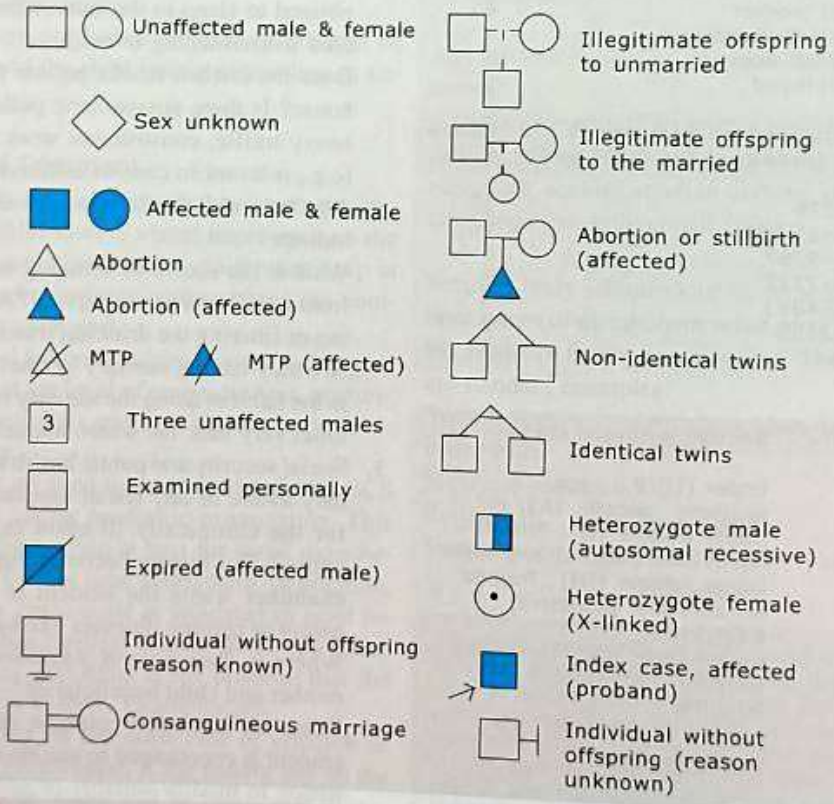

Fig.3.4b Symbols used in drawing a pedigree chart

12. Socio-Economic History

- Occupation of parents
- Education of parents
- Socioeconomic status (Modified Kuppuswamy)
- Housing: ventilation, overcrowding
- Sanitation: toilet facility
- Drinking water source
- Exposure to smoke, pets, allergens

MODIFIED KUPPUSWAMY SOCIO-ECONOMIC SCALE (IJP DEC 2007 REVISION)

(Scores: Education + Occupation + Monthly Income)

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1. Education of Head of Family

Education Level	Score
Profession or Honors	7
Graduate or Postgraduate	6
Intermediate or Post-High School Diploma	5
High School Certificate	4
Middle School Certificate	3
Primary School Certificate	2
Illiterate	1

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2. Occupation of Head of Family

Occupation	Score
Professional	10
Semi-professional	6
Clerical / Shop owner / Farmer	5
Skilled Worker	4
Semi-skilled Worker	3
Unskilled Worker	2
Unemployed	1

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3. Monthly Family Income (Modified for 2007 CPI)

(Values revised as per CPI-IW base 2001 = 100; published IJP Dec 2007)

Monthly Family Income (Rs) – 2007	Score
> 13,203	12
6,601 – 13,200	10
4,001 – 6,600	6
2,001 – 4,000	4
1,001 – 2,000	3
501 – 1,000	2
< 500	1

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4. Socio-Economic Class (Total Score Interpretation)

Class	Score Range
I – Upper	26–29 – business people , IAS
II – Upper Middle	16–25 – doctors & engineers
III – Lower Middle	11–15- plumbers & electricians
IV – Upper Lower	5–10 – workers & manual labours
V – Lower	< 5 - no jobs like street dwellers

EXAMPLE -

Head of Family: Father

- **Education:** High School Certificate → Score 4
- **Occupation:** Skilled Worker → Score 4
- **Income:** Rs. 5,500 / month (falls in 4,001–6,600) → Score 6

Total Score = 4 + 4 + 6 = 14

Socio-economic Class = Class III (Lower Middle Class)

GENERAL EXAMINATION

1. VITAL SIGNS

1. Temperature
2. Pulse rate (age-appropriate normal values)
3. Respiratory rate (age-appropriate normal values)
4. Blood pressure (using correct cuff size)
5. Oxygen saturation (SpO_2)
6. Capillary refill time (CRT)
7. Pain assessment (age-appropriate pain scale if needed)

2. GROWTH ASSESSMENT

1. Weight
   - Plot on WHO growth chart
   - Percentile / Z-score
2. Length / Height
   - Infantometer or stadiometer
   - Percentile / Z-score
3. Head circumference
   - Maximal occipito-frontal circumference
4. Chest circumference (when needed)
5. Mid-upper arm circumference (MUAC)
6. Body mass index (BMI) for age
7. Growth velocity assessment
8. Nutritional status classification
   - WFA / HFA / WFH / MUAC / BMI-for-age

3. DEVELOPMENT ASSESSMENT

1. Gross motor milestones
2. Fine motor milestones
3. Language milestones
4. Social/adaptive milestones
5. Hearing and vision screening
6. Developmental red flags (if any)
7. Use of Denver II or appropriate screening tool when required

4. GENERAL APPEARANCE

1. Alert / active / irritable / lethargic / toxic appearing
2. Posture and activity level
3. Level of hydration
4. Facial expression and responsiveness

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5. HEAD-TO-FOOT EXAMINATION (SYSTEMATIC)

A. Head and Scalp

1. Shape of head
2. Scalp lesions or abnormalities
3. Fontanelles (size, tension)
4. Sutures (overriding, separation)
5. Hair pattern, alopecia areas

B. Eyes

1. Conjunctiva (pallor)
2. Sclera (icterus)
3. Red reflex
4. Eye movements
5. Pupils – size and reaction
6. Discharge, edema, strabismus

C. Ears

1. External ear shape and position
2. Discharge
3. Preauricular pits/tags

D. Nose

1. Patency
2. Nasal flaring
3. Discharge

E. Mouth & Throat

1. Lips (cyanosis, dryness)
2. Oral mucosa moisture
3. Tongue, thrush, ulcerations
4. Palate (cleft)
5. Dentition appropriate for age

F. Neck

1. Lymph nodes
2. Neck stiffness
3. Masses/cysts
4. Thyroid enlargement

G. Skin

1. Pallor
2. Icterus
3. Cyanosis
4. Rashes
5. Petechiae, purpura
6. Edema
7. Dehydration signs
8. Turgor, texture

H. Chest

1. Shape of chest
2. Symmetry
3. Retractions (intercostal, subcostal, suprasternal)
4. Breathing pattern

I. Cardiovascular General Signs

1. Cyanosis (central/peripheral)
2. Clubbing
3. Peripheral pulses
4. Blood pressure in all limbs when indicated

J. Abdomen

1. Distension
2. Umbilicus condition
3. Visible peristalsis or veins
4. Hernial orifices

K. Genitalia

1. External genitalia development
2. Testes descended (in boys)
3. Labia, clitoris (in girls)
4. Rash, discharge

L. Musculoskeletal System

1. Limb deformities
2. Joint swelling
3. Range of motion
4. Spine – scoliosis, dimples, hair tuft

M. Neurological General Signs

1. Tone (hypotonia/hypertonia)
2. Activity level
3. Cry quality
4. Primitive reflexes (for infants)
5. Symmetry of movements

GENERAL PHYSICAL EXAMINATION

- General appearance: active / irritable / lethargic / sick looking
- Build and nutrition: normal / undernourished / obese
- Hydration status: normal / mild / moderate / severe dehydration
- Temperature:
- Pulse: rate, rhythm, volume
- Respiratory rate:
- Blood pressure:
- Weight, height, head circumference; percentile status
- Pallor
- Icterus
- Cyanosis
- Clubbing
- Lymphadenopathy
- Edema

Signs of vitamin deficiencies

- Skin, hair changes
- Angular stomatitis
- Rickets signs
- Glossitis

SYSTEMIC EXAMINATION

1. Cardiovascular System

Inspection

- Precordial bulge
- Visible pulsations
- Apex location

Palpation

- Apex beat: location, character
- Thrills
- Parasternal heave
- Peripheral pulses

Auscultation

- S1, S2 character
- Additional sounds (S3, S4)
- Murmurs: site, timing, radiation, intensity

2. Respiratory System

Inspection

- Chest shape, symmetry
- Respiratory effort, retractions

Palpation

- Tracheal position
- Chest expansion
- Vocal fremitus

Percussion

- Resonant / dull

Auscultation

- Breath sounds: vesicular/bronchial
- Added sounds: crepitations, wheeze, rhonchi
- Air entry on both sides

3. Central Nervous System

Higher Mental Functions

- Consciousness, orientation, behaviour

Cranial Nerves

- I to XII examination

Motor System

- Tone, bulk, power
- Reflexes: superficial and deep reflexes
- Plantar response

Sensory System

- Touch, pain, vibration, position sense

Cerebellar Tests

- Finger-nose, heel-knee, gait (if age appropriate)

Meningeal Signs

- Neck stiffness, Kernig, Brudzinski

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4. Gastrointestinal System

Inspection

- Abdominal contour: scaphoid / distended
- Visible veins, peristalsis, scars

Palpation

- Soft / firm
- Tenderness
- Organomegaly: liver, spleen
- Masses
- Fluid thrill

Percussion

- Liver dullness
- Ascites (shifting dullness)

Auscultation

- Bowel sounds: present / absent / hyperactive

Additional

- Rectal examination if indicated
- Hernial orifices

DISCUSSION -

- Summary of case in 4–5 lines
- Most probable diagnosis based on
  - Presenting complaints
  - Physical findings
  - Systemic examination
- Differential diagnoses
- Relevant investigations
- Management plan

NOTE –

The main additional history/general examination pints in peadiatrics case sheet compared to adult case sheet are -

- **MILESTONES OF DEVLOPMENT**
- **ANTROPOMETERY**
- **IMMUNIZATION**
- **nutrition**

In mbbs examination -----02 cases alloted ----- one case will be ear marked to assess the candidate proficiency in the areas of main and hemce importance.

INSTRUMENTS USED IN PAEDIATRICS - MBBS

1. General Examination Instruments

Instrument	Use
Stethoscope (paediatric chest piece)	Auscultation of heart, lungs, bowel sounds
Thermometer (digital/infrared)	Measuring body temperature
Pulse oximeter (paediatric probe)	Assessing oxygen saturation
Sphygmomanometer with paediatric cuffs	Measuring blood pressure
Weighing scale (infant & child)	Weight assessment
Infantometer	Measuring length of infants
Stadiometer	Height measurement
Head circumference tape	Measuring head circumference
MUAC tape	Screening for malnutrition

2. Neonatal Instruments

Instrument	Use
Infant warmer/radiant warmer	Maintaining neonatal temperature
Neonatal incubator	Thermoregulation and intensive care
Neonatal resuscitation bag & mask	Resuscitation at birth
Laryngoscope with neonatal blades	Airway management
Neonatal endotracheal tubes	Intubation
Meconium aspirator	Suctioning meconium
Orogastric/Nasogastric tubes	Feeding or decompression
Neonatal suction catheter	Airway suction
Phototherapy unit	Treating neonatal jaundice
Apgar timer	Recording APGAR scores
Umbilical catheterization set	Vascular access in neonates

3. Growth & Development Assessment Instruments

Instrument	Use
Growth charts	Plotting growth parameters
Developmental screening tools (Denver II charts)	Assessing developmental milestones
Neonatal reflex hammer	Checking neonatal reflexes
Vision charts (Snellen, Lea symbols)	Visual acuity assessment
Hearing screening tools (OAE/BERA devices)	Hearing evaluation

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4. Respiratory Instruments

Instrument	Use
Nebulizer	Aerosol drug delivery
Spacer with mask	Inhaled drug delivery in children
Peak flow meter (paediatric)	Monitoring asthma
Oxygen hood	Oxygen delivery to infants
CPAP machine (neonatal/paediatric)	Airway support
Suction apparatus	Clearing secretions

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5. Cardiovascular Instruments

Instrument	Use
ECG machine	Recording cardiac electrical activity
Paediatric ECG leads	Child-specific ECG monitoring
Pulse oximeter	Monitoring oxygen saturation
Cardiac monitor	Continuous monitoring of heart rate & rhythm

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6. Gastrointestinal & Nutrition Instruments

Instrument	Use
Nasogastric tube	Feeding or drainage
Feeding syringe	Administering feeds
Ryle's tube	Stomach decompression
Gastrostomy set	Long-term feeding access
Rehydration spoon/cup	ORS administration

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7. Neurology Instruments

Instrument	Use
Paediatric reflex hammer	Checking reflexes
Torch	Pupil examination
Tuning fork	Testing hearing/vibration
EEG machine	Recording brain activity

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8. Emergency & Critical Care Instruments

Instrument	Use
Paediatric airway kit	Airway management
Defibrillator with paediatric paddles	Cardiac resuscitation
Infusion pumps	Controlled fluid/drug administration
Syringe pumps	Neonatal dosing accuracy
Emergency trolley	Emergency management setup

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9. Immunisation & Procedure Instruments

Instrument	Use
Syringes (0.5 mL, 1 mL, 2 mL)	Vaccine and drug administration
Auto-disable syringes	Safe vaccination
Vaccine carrier	Transporting vaccines
Cold box	Cold chain maintenance
Observation timer	Post-vaccination monitoring

10. ENT & Miscellaneous Instruments

Instrument	Use
Otoscope (paediatric specula)	Ear examination
Tongue depressor	Oropharyngeal examination
Nasal speculum	Nasal examination
Torch/lamp	ENT and general examination
Pediatric forceps	Removing FBs/assisting procedures

ANTHROPOMETRY IN PAEDIATRICS - MBBS

1. Basic Anthropometric Measurements

Parameter	Instrument	Method	Normal Values	Interpretation
Weight	Infant weighing scale / digital child scale	Minimal clothing, zero the scale, place child at center	Depends on age: Birth wt 2.5–3.5 kg; Doubles by 5 months; Triples by 1 yr	Used to assess acute malnutrition and growth pattern
Length (0–2 years)	Infantometer	Child supine, head touching fixed headboard, legs extended, feet at right angle	Birth: 50 cm; 1 yr: 75 cm; 2 yrs: 85 cm	Detects chronic malnutrition (stunting)
Height (>2 years)	Stadiometer	Barefoot, heel-buttock-shoulder touching wall, head in Frankfurt plane	Average 6–7 cm gain per year	Monitors growth velocity
Head circumference	Non-stretchable tape	Tape above eyebrows, over occiput (maximal circumference)	Birth: 34–35 cm; 1 yr: 45 cm; 2 yrs: 47 cm	Assesses brain growth; micro/macrocephaly
Chest circumference	Measuring tape	Tape at nipple level during quiet breathing	At birth < HC; by 1 year > HC	Nutritional status and thoracic development
Mid-upper arm circumference (MUAC)	MUAC tape	Midpoint between acromion and olecranon, left arm	Normal >13.5 cm; 12.5–13.5 risk; <12.5 SAM	Screening for acute malnutrition
BMI	Weight & height	BMI = kg / m²	5–85th percentile normal	Detects underweight/obesity

2. Growth Indices (Z-scores, WHO standards)

Index	Formula	Interpretation
Weight-for-Age (WFA)	Weight compared to WHO standard for age	Underweight < -2 SD; Severe underweight < -3 SD
Height-for-Age (HFA)	Height compared to standard for age	Stunting < -2 SD; Severe stunting < -3 SD
Weight-for-Height (WFH)	Weight compared to height standard	Wasting < -2 SD; Severe wasting < -3 SD
BMI-for-age	BMI plotted on WHO/CDC chart	Overweight > 85th percentile; Obesity > 95th

3. Skinfold Thickness Measurements

Site	Instrument	Normal Values	Significance
Triceps	Skinfold calipers	Normal 10–14 mm (children)	Estimates subcutaneous fat
Subscapular	Skinfold calipers	Normal 6–10 mm	Used in obesity assessment
Biceps	Skinfold calipers	4–8 mm	Body fat distribution
Suprailiac	Skinfold calipers	6–10 mm	Anthropometric profiling

4. Other Anthropometric Ratios

Ratio	Formula	Normal	Significance
Ponderal Index	Weight (g) × 100 / length³ (cm^3)	Normal 2.32–2.95	Detects IUGR in newborns
Upper segment : Lower segment ratio (US:LS)	US = crown to symphysis; LS = symphysis to heel	At birth ~1.7; at 6 yrs ~1.0	Assesses skeletal dysplasias
Arm span	Fingertip to fingertip	Equal to height after 5 years	Tall stature disorders
Sitting height	Sitting on flat surface	Normally 55% of height (infants)	Evaluates disproportionate growth

5. Nutritional Classification (Using MUAC, WFA, HFA, WFH)

Parameter	Normal	Moderate Malnutrition	Severe Malnutrition
MUAC	>13.5 cm	12.5–13.5 cm	<12.5 cm
Weight-for-height	> -2 SD	-2 to -3 SD	< -3 SD
Weight-for-age	> -2 SD	-2 to -3 SD	< -3 SD
Height-for-age	> -2 SD	-2 to -3 SD	< -3 SD

6. Growth Charts (WHO)

Chart Type	Age Group	Purpose
WHO 0–5 years growth charts	0–60 months	Standard for global paediatric growth
WHO 5–19 years BMI charts	School-age & adolescents	Identify underweight/overweight
Indian Academy of Pediatrics Growth Charts	Indian children	Country-specific growth monitoring

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Example -

Parameter	Value	Interpretation
Weight	10.2 kg	3rd–15th percentile (borderline)
Height	82 cm	<3rd percentile (stunting)
MUAC	11.8 cm	Severe acute malnutrition
Head circumference	45 cm	Normal for age
BMI	15.2	Normal percentile

Interpretation: Chronic malnutrition with acute component.

PAEDIATRICS CASE SHEET 02 PATTERN – MBBS

PROFORMA

Informant :
Name :
Age
Sex :
Address

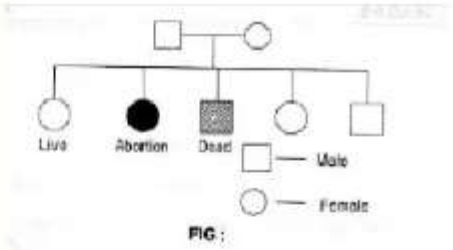

FIG :

CHIEF COMPLAINTS
In chronological order

HISTORY OF PRESENT ILLNESS
Patient was relatively well - .__ days back and then developed so and so complaint explain that in detail and conclude presenting illness with negative history.

PAST HISTORY
(a) Any H/o similar complaints in the past.
(b) Any H/O childhood infection, joint pains or sore throat.
(c) Any H/o TB, Allergies, Asthma, exanthematous fevers like measles etc. and any cardiac illness: or neonatal jaundice or meningitis or seizures

FAMILY HISTORY
Any H/o consanguinity among parents,
Any H/o similar complaints in the family.

PERINATAL HISTORY			
S. No.	Prenatal	Natal	Post Natal
1	Booked case/not	Term / Not	
2	No. of antenatal checkups	Hospital / Home delivery	Any complica-tions Like jaundice
3	TT immunization by mother	Type of delivery	Asphyxia
4	Fe and Folic sup-plementation	Any instrumen-tation (forceps Vacuum	seizures etc.
5	Any maternal illness during pregnancy HTN - IUGR DM - CHD (TGA)	Birth weight =	
6	Cried immedi-ately after birth or not		
7	Intake of any drugs other than Vitamin/Calcium suppliments		

DEVELOPMENTAL HISTORY	
Gross Motor	
Age	**Milestone**
3 months	Neck holding
5 **months**	Sitting with support
8 months	Sitting without support
9 months	**Standing** with **support**
10 months	Walking with support
11 **months**	Crawling (Creeping)
12 months	Standing without support
13 months	Walking upstairs
18 months	Walking without support
24 months	Running
36 months	Riding tricycle

DEVELOPMENTAL HISTORY	
Fine Motor	
Age	**Milestone**
4 months	Grasps a rattle or rings when placed in the hand
5 months	Bidextrous grasp
7 months	Palmar grasp
9 months	Pincer grasp
LANGUAGE	
1 month	Turns head to sound
3 months	Cooing
6 months	Monosyllables
9 months	BisyRables
36 months	Telling a story
SOCIAL	
2 months	Social smile
3 months	Recognizing mother
6 months	Smiles at mirror image

Breast Feeding Started at _____ months
Exclusively breast fed for _____ months
Supplimentary feeding started at _____age
Started weaning at _____age
What is the regualt diet of the child

Calculate the calorie & protein values. Dietary in-take during the last 24 hours and see if there is any deficit.

1 Chapati 85 Cal | 1 Biscuit 32 Cat | **1** Bread 62 Cal

Ex : Consider l cup = 200 ml — 200 gm
1 glass = 250 ml — 250 gm 1 tsp = 5 ml _ _ 5 gm
1 Katori = 100 ml = 100 gm

If dietary in take of a **child** is :

Morning :
(1 cup milk + 1 tsp sugar) + **(1/2** chapati) + (4 Biscuits) = 325
(135 + 20) 1/2 (84) 4 (32)

Lunch :
(1 Katori rice) + (1/2 katori green leafy veg + 1 gm Oil) = 369
(340) (20 + 9)

Evening :
(1 Cup milk + 1 tsp sugar) + (1 Chapati) = 240
(135 + 20) (85)

Night :
(2 Chapatis) + (1 Katori tuberous veg + 2.5 gm oil) = 252
2 (85) (60 + 22)

Daily caloric in take = 1186
If Required Calories for this child = 1500
Deficit = 314
Advice the mother to supplement nutritional food to overcome the deficit

Food stuff	Calories (Kcal)	Protein (g)
Rice	345	6.5
Wheat	350	11.0
Pulses / Legumes	350	22 - 25
Leafy Vegetables	25 - 50	2.0 - 2.5
Roots and Tubers	50 - 100	1.0 - 2.0
Ground nuts	550	25.0
Apple	60	0.2
Banana	120	1.0
Meat	150 - 200	20
Egg	180	13.0
Cow Milk	70	3.5
Ghee and Oil	900	-
Sugar	400	-

SOCIO ECONOMIC HISTORY

- No. of family members :
- Occupation/education & Income of parents
- No. of earning members in the family.
- Own/Rented house.
- Type of house
- Type of water supply, sewage disposal
- No. of members in a single room. (To rule out overcrowding).
- Per Capita Income = Total Income / No. of family members

IMMUNIZATION HISTORY

- Child is immunized or not, according to the schedule.
- Mention about the BCG scar on left arm.

GENERAL PHYSICAL EXAMINATION

A ____yr. male/female patient c/c/c. with attitude posture (N)/not, appearance (N)/toxic, moderately/poorly built. well/badly nourished lying on the bed.

Anthropometry :

Wt.____ kg (Wt. Formulae= (1) Weight = $\frac{Age\ in\ months+9}{2}$ (from 3months to 1 year)

(2) Weight = (Age in years x 2)+8 (from 1 to 6 years) (2A+8)

(3)) Weight = $\frac{(Age\ in\ years\ x\ 7)\ -5}{2}$ (from 7 to 12 years) (7A-5)/2

(N) _____corresponding to that age

Ht_____cm (Height Formulae = (1) Height = (Age in years x 6) +77 (cm) (Up to 12 Years)

(2) Height = (Age in Years x2.5) + 30 (in) (Up to 12 Years)

(N) _____corresponding to that age

• *Head Circumference :* Measured along the line joining prominent parts of supraorbital ridges and occiput. (Add 6cm per year up to 2 years)

Dines Formula for HC = $\frac{Length\ in\ inches\ +\ 9.5}{2}$ ±2.59

• *Mid Arm Circumference :* Measured at mid point between olecranon process and acromian. (Till 5yr of age only)

• *Chest Circumference :* Measured at the level of nipples.

• *Upper Segment Lower Segment Ratio :* Upper segment - from vertex to symphysis pubis.
Lower segment - Symphysis pubis to heel.

Vitals

Pulse: _____/*min.* Rhythm, Volume, Force.
BP ____/____mm *Hg*
Temp. _____°F
Respiratory rate ____/min
Type of Respiration
Abdominal - Infants
Abdomino - Thoracic in young children

	Weight (Kg)	Height (cm)	Head Circumference (cm)
At Birth	3	50	33-35
5 Months	6	65	42-44
1 Year	10	75	45-47

HEAD TO TOE EXAMINATION

Head and Spine : Shape, bossing, fontannels, sutures, facies.
Eyes : Any abnormalities like widely placed, ptosis, cataract, bitot spots, pallor, icterus.
Ears : Any abnormalities like low set ears, size and shape variations.
Nose: Any abnormalities in size. shape
Mouth : Orodental hygiene, teeth, bleeding gums, tongue.
Neck : Any mass etc., any lympha-denopathy.
Thorax: Any scars/sinuses. widely placed nipples. shape & symmetry
Abdomen : Shape, countour of skin, any distension. umblicus position.
Genitals : (Normal)/not
Limbs : Pedal edema
Skin Appendages : Hairs. Nails (clubbing, koilonychia).

SYSTEMIC EXAMINATION

Respiratory System :

1. Inspection :

(i) Shape:

(N) — Circular

- Pigeon shaped (Pectus carinatum) - Rickets, condrodystrophy, Noonan syndrome.
- Funnel shaped (Pectus excavatum) - Marfan's syndrome. Noonan syndrome, mucosal neuroma syndrome.
- Barrel shaped - Emphysema

(ii) Symmetry

- (N) — Bilaterally symmetrical

(iii) Respiratory Movements :

- Both the sides, front and back. Look out for accessory muscles and retractions (in collapse) and bulging (empyema) of ICS.

(iv) Apex Impulse :

- (N) in 4th It. ICS lateral to mid clavicular line.

(v) Position of Trachea :

- Prominence of tendon of sternomastoid over the deviated side of trachea is **Trail's sign**.

(vi) **Any scars, sinus, dilated / engorged veins.**

2. Palpations :

- Inspectory findings confirmed
- Respiratory movements are assessed.
- Apex beat
- Tracheal position.
- Vocal fremitus - ↑ in - Consolidation , ↓ in- pleural effusion.

3. Percussion :

- Direct percussion over the clavicles.
- Indirect with two hands in **all** the areas of chest.

Front :	**Back :**
Supraclavicular Infraclavicular	
	Supra scapular
Mammary Inframammary	
	Infra scapular
Supraaxillary Infra axillary	
	Inter scapular

(Normal) - **note :** Resonant
- *Dull :* Consolidation
- *Stony dull :* Pleural effusion
- *Hyper resonant :* pneumothorax.

4. Auscultation

• *Breath Sounds :*

Vesicular : Inspiration > Expiration no pause

Bronchial **:** Inspiration = Expiration with pause.

Bronchovesicular : Expiration much louder with no pause (Br. Asthma).

• *Vocal Resonance:*

- ↑ in Consolidation
- ↓ in Pleural effusion
- Pneumothorax

  Collapse, emphysema

• *Adventitious Sounds :*

- Wheeze or rhonchi Br. Asthma.
- Crackles, creptitations - consolidation, bronchitis, bronch-iactasis.
- Pleural rub - Early stages of pleural effusion.

FOR NOTES -

FOR NOTES -

FOR NOTES -

PAEDIATRICS CASE HISTORY TAKING

Case presentation – MBBS

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1. Identification Data

The patient is a _____ year _____ month old _____ (male/female) child, brought by the parents/caregiver, residing at _____. The informant is the mother/father and is considered reliable.

---

2. Presenting Complaints

The child has been brought with complaints of _____ for the past _____.

(You may write 2–3 complaints in sentence form.)

---

3. History of Present Illness

The child was apparently well until _____ when the parents noticed _____. The symptoms had a/an acute / gradual onset and have been progressing / remaining intermittent / remaining static since then.
The illness began with _____ and was associated with _____.

There is no history of fever / cough / breathlessness / cyanosis / abdominal pain / vomiting / diarrhea / seizures / rash unless specifically present in the case.

The child's feeding pattern, sleep, play activity, and behavior during the illness are described, noting any decrease in oral intake, increased irritability, lethargy, or excessive crying.
Any medications given prior to consultation and response to them should also be mentioned.

---

4. History of Past Illness

There is no significant history of similar episodes in the past. The child has not had any major infections, hospital admissions, surgeries, or blood transfusions earlier unless otherwise stated. History of tuberculosis exposure, recurrent wheeze, allergies, or chronic illnesses in the past should be asked and documented.

---

5. Antenatal History

The mother was _____ years old during pregnancy. The pregnancy was _____ (planned/unplanned), with regular antenatal check-ups.
There was/no history of diabetes, hypertension, anemia, thyroid disorders, infections, fever with rash, drug intake, radiation exposure, bleeding, or poly/oligohydramnios during pregnancy. Antenatal ultrasonography findings, if available, are recorded.

---

6. Natal (Intranatal) History

The child was delivered at _____ weeks of gestation by _____ (NVD/LSCS/assisted delivery) at _____ (hospital/home).
The baby cried immediately after birth / required resuscitation.
Birth weight was _____ kg.
There were no complications during labour or delivery unless mentioned.

---

7. Postnatal History

The baby did / did not require NICU admission. Feeding was initiated within _____ hours of birth.
There was/no history of neonatal jaundice, sepsis, convulsions, respiratory distress, or birth asphyxia.
The neonatal period was otherwise uneventful unless stated.

---

8. Immunisation History

The child has been immunised as per the National Immunisation Schedule. All vaccinations appropriate for age have been received, including BCG, Hepatitis B, OPV, Pentavalent, PCV, Rotavirus, MMR, and boosters where applicable.
There is/no history of missed doses or adverse reactions to vaccines.

---

9. Developmental History

The child's developmental milestones are described in four domains:

Gross motor development – e.g., head control achieved at _____ months, sitting without support at _____ months, walking at _____ months, etc.
Fine motor development – e.g., reaching for objects at _____ months, pincer grasp at _____ months.
Language development – cooing, babbling, meaningful words, sentence formation with appropriate ages.
Social/adaptive development – social smile, stranger anxiety, interactive play.

Any concerns such as developmental delay or regression are noted.

---

10. Dietary History

The child was exclusively breastfed / mixed fed until _____ months. Complementary feeding was started at _____ months. Current diet is described in terms of frequency, quantity, diversity, appetite, and feeding difficulties.
A 24-hour dietary recall may be included, and fluid intake is assessed.
Any history of food intolerance or allergies is mentioned.

---

11. Family History

There is/no history of similar illness in siblings or family members.
The family structure (joint/nuclear) is noted.
History of hereditary disorders, tuberculosis, asthma, congenital anomalies, consanguineous marriage, or unexplained childhood deaths is assessed and documented.

---

12. Socio-economic History (Modified Kuppuswamy Scale)

The socio-economic class of the family is determined based on the head of the family's **education, occupation, and monthly income**, and the final score is classified accordingly. Living conditions, sanitation, water supply, overcrowding, parental education and occupation, and exposure to smoke or pollutants are documented.

---

13. Birth and Growth History

Birth weight, weight gain pattern, current weight, height/length, head circumference, and mid-upper arm circumference are recorded and plotted on appropriate WHO growth charts.
Any deviation from normal percentiles or Z-scores is noted.

---

14. Immunisation Review

Cross-checking with MCP card and documenting dates of vaccines if available.

GENERAL EXAMINATION

On examination, the child is alert / active / irritable / lethargic and appears well nourished / undernourished / wasted / stunted depending on findings.
Temperature is _____, pulse is _____ beats/min, respiratory rate is _____ breaths/min, blood pressure is _____ mmHg, and oxygen saturation is _____% on room air.

There is/no pallor, icterus, cyanosis, clubbing, edema, lymphadenopathy, or signs of dehydration. Skin is assessed for rashes, lesions, or nutritional dermatoses.

Growth parameters were measured: weight of _____ kg, height/length of _____ cm, head circumference of _____ cm, and MUAC of _____ cm. These values plotted on WHO charts fall in the _____ percentile/Z-score category.

Developmental assessment appropriate for age is noted.

SYSTEMIC EXAMINATION

1. Cardiovascular System

On inspection, there is no precordial bulge or visible pulsations. On palpation, the apex beat is located at _____ and is of normal character. No thrills or parasternal heave are present.
On auscultation, S1 and S2 are heard normally; no murmurs / murmurs are present (describe site, timing, radiation, grade).

---

2. Respiratory System

Inspection reveals symmetrical chest movement with no retractions or deformities.
Percussion note is resonant bilaterally.
On auscultation, breath sounds are normal / diminished / bronchial, with or without added sounds such as wheeze or crepitations.

---

3. Gastrointestinal System

The abdomen is soft / distended with normal / exaggerated / absent bowel sounds.
There is/no hepatomegaly, splenomegaly, or palpable masses.
No tenderness or guarding is elicited.

---

4. Central Nervous System

The child is conscious, alert, and interacting appropriately. Cranial nerves are intact. Muscle tone, power, and deep tendon reflexes are normal for age.
Sensation is normal, and no meningeal signs are noted.
In infants, primitive reflexes are assessed and documented.

---

5. Genitourinary System

External genitalia are normal for age and sex. Testes are descended bilaterally (in boys). No hernias, swellings, or discharge noted.

---

6. Musculoskeletal System

No deformities, swellings, or joint tenderness. Range of motion is normal. Spine is straight without abnormalities.

SUMMARY AND PROVISIONAL DIAGNOSIS

A concise summary of the case is written, integrating history and examination findings, followed by the provisional diagnosis and differential diagnoses.

Investigations and management plan are added as required.

FOR NOTES -

SAMPLE – CASE ACYANOTIC HEART DISEASE (VENTRICULAR SEPTAL DEFECT) - MBBS

Identification Data

This is a case of a **2-year-old male child**, brought by his mother to the paediatrics outpatient department. The informant is the mother and is reliable.

Chief Complaints

1. Fast breathing during feeding since 6 months of age
2. Excessive sweating over the forehead during feeding since 6 months
3. Poor weight gain since infancy
4. Recurrent episodes of cough and cold since 8 months of age

History of Present Illness (HOPI)

The child was apparently normal at birth. At around 6 months of age, the mother noticed that the child developed fast breathing and excessive sweating over the forehead while feeding. The child often becomes tired during feeds and requires frequent pauses.

There is a history of poor weight gain despite adequate feeding. Since the age of 8 months, the child has had recurrent episodes of cough and cold, requiring multiple visits to local hospitals. There is no history of bluish discoloration of lips, tongue, or nails at any time. There is no history of syncopal attacks, seizures, or chest pain.

Antenatal History

The mother was 25 years old at the time of pregnancy. Antenatal checkups were regular. There was no history of fever, rash, drug intake, radiation exposure, or infections during pregnancy.

Natal History

The child was born by normal vaginal delivery at a government hospital. Birth cry was immediate. There was no history of birth asphyxia. Birth weight was 2.8 kg.

Postnatal History

There was no history of neonatal ICU admission, neonatal seizures, or neonatal jaundice.

Developmental History

The child achieved social smile at 2 months, head control at 4 months, sitting without support at 8 months, and walking with support at 14 months. Development is slightly delayed for age.

Immunization History

The child is immunized as per the national immunization schedule for age.

Nutritional History

The child was exclusively breastfed for 6 months. Complementary feeding was started at 6 months. Appetite is poor.

Family History

There is no family history of congenital heart disease. There is no history of consanguineous marriage.

Personal History

- Appetite: Poor
- Sleep: Disturbed
- Bowel and bladder habits: Normal

General Examination

The child is conscious, alert, and cooperative.
Weight is below the 5th percentile for age.

Mild pallor is present.
There is no cyanosis, clubbing, edema, or lymphadenopathy.

Vital Signs

- Heart rate: 130/min
- Respiratory rate: 42/min
- Blood pressure: Normal for age
- Oxygen saturation: 98% on room air

Systemic Examination

Cardiovascular System

- Precordium: Bulge present
- Apex beat: Displaced downwards and laterally
- First and second heart sounds: Normal
- A pansystolic murmur is heard best at the left lower sternal border

---

Respiratory System

- Bilateral basal crepitations present

Other Systems

Abdominal and central nervous system examinations are within normal limits.

Provisional Diagnosis

Acyanotic Congenital Heart Disease – Ventricular Septal Defect (VSD)

Differential Diagnosis

- Patent Ductus Arteriosus
- Atrial Septal Defect

Investigations

- Chest X-ray: Cardiomegaly with increased pulmonary vascular markings
- ECG: Left ventricular hypertrophy
- Echocardiography: Perimembranous ventricular septal defect with left-to-right shunt

---

Final Diagnosis

Acyanotic Congenital Heart Disease – Ventricular Septal Defect

---

Management Plan

- Medical management with diuretics and ACE inhibitors
- Nutritional rehabilitation
- Treatment of respiratory infections
- Regular cardiology follow-up
- Surgical correction advised if defect does not close spontaneously

---

Prognosis

Good, depending on the size of the defect and early intervention.

Teaching Points

- Acyanotic heart disease presents with **heart failure features**, not cyanosis
- Excessive sweating during feeding is a key symptom
- Echocardiography confirms diagnosis

VIVA QUESTIONS – BASED ON CHIEF COMPLAINTS

1. Why does the child have fast breathing during feeding?

- Due to left-to-right shunt causing increased pulmonary blood flow
- Leads to pulmonary congestion and heart failure
- Feeding increases metabolic demand, worsening symptoms

---

2. Why does the child sweat excessively during feeding?

- Increased sympathetic activity
- Feeding acts like exertion
- Common sign of congestive heart failure in infants

---

3. What is the reason for poor weight gain?

- Increased energy expenditure
- Reduced effective feeding due to fatigue
- Chronic illness

---

4. Why does the child get recurrent cough and cold?

- Pulmonary overcirculation
- Recurrent respiratory infections
- Pulmonary edema predisposes to infections

---

5. Why is there no cyanosis in this child?

- Blood flows from left to right
- No mixing of deoxygenated blood into systemic circulation

VIVA QUESTIONS – BASED ON HOPI

6. Why were symptoms noticed only after 6 months of age?

- Pulmonary vascular resistance falls after birth
- Shunt increases gradually
- Symptoms appear when shunt becomes significant

---

7. Why does the child get tired during feeding?

- Feeding increases cardiac workload
- Heart cannot meet increased demand
- Leads to early fatigue

---

8. Why are symptoms progressive in nature?

- Increasing left-to-right shunt
- Progressive pulmonary congestion
- Development of heart failure

---

9. Why is there no history of bluish discoloration?

- This is an acyanotic heart disease
- Oxygenated blood enters pulmonary circulation, not systemic

---

10. Why are respiratory symptoms prominent in acyanotic CHD?

- Pulmonary overcirculation
- Increased lung blood flow
- Pulmonary edema

CLINICAL CORRELATION VIVA QUESTIONS

11. What murmur is expected in this condition?

- Pansystolic murmur
- Best heard at left lower sternal border

---

12. Why is the apex beat displaced?

- Left ventricular volume overload
- Cardiac enlargement

---

13. Why is oxygen saturation normal?

- No right-to-left shunt
- Adequate systemic oxygenation

---

14. What investigation confirms the diagnosis?

- Echocardiography

---

15. What complication can occur if untreated?

- Congestive heart failure
- Pulmonary hypertension
- Eisenmenger syndrome (late)

ONE-LINE VIVA PEARLS -

- Excessive sweating during feeding = heart failure in infants
- No cyanosis does not rule out heart disease
- Feeding acts like exercise in infants

FOR NOTES -

PAEDIATRICS – SAMPLE CASE OF PNEUMONIA (PAEDIATRICS) - For learning purpose only MBBS

CASE OF PNEUMONIA (PAEDIATRICS)

Identification Data

This is a case of a **3-year-old male child**, brought to the paediatrics outpatient department by his mother, who is a reliable informant.

Chief Complaints

1. Fever since 4 days
2. Cough since 4 days
3. Fast breathing since 2 days
4. Difficulty in breathing since 1 day
5. Reduced feeding since 2 days

History of Present Illness (HOPI)

The child was apparently normal 4 days ago, when he developed fever, which was moderate to high grade, continuous in nature, and associated with chills. There was no history of rash or convulsions.

On the same day, the child developed cough, which was initially dry and later became productive. The cough was more severe at night and was associated with mild chest discomfort.

After two days of illness, the mother noticed that the child had fast breathing, which gradually increased in severity. Since the last one day, the child developed difficulty in breathing, especially while feeding and crying. There was also a history of nasal flaring and chest retractions.

The child has had reduced oral intake since the last two days. There is no history of vomiting, diarrhea, ear discharge, or contact with a known tuberculosis patient.

There is no history of similar episodes in the past and no history of wheezing.

Past History

- No history of recurrent respiratory infections
- No history of hospitalization
- No history of bronchial asthma or tuberculosis

Antenatal History

- Mother was 25 years old during pregnancy
- Antenatal period was uneventful
- No history of fever, infections, or drug intake during pregnancy

---

Natal History

- Full-term normal vaginal delivery
- Birth cry present immediately
- Birth weight: 2.8 kg

Postnatal History

- No NICU stay
- No history of neonatal infections or jaundice

Developmental History

- Developmental milestones appropriate for age

Immunization History

- Immunized as per national immunization schedule
- No missed vaccines

Nutritional History

- Exclusively breastfed for 6 months
- Adequate complementary feeding
- Mixed diet currently

Family History

- No history of tuberculosis
- No similar illness in siblings

Personal History

- Appetite: Decreased
- Sleep: Disturbed due to cough
- Bowel and bladder: Normal

General Examination

- Child is ill-looking and irritable
- Temperature: 38.8°C
- Respiratory rate: **48/min** (increased for age)
- Pulse: 120/min
- Pallor: Mild
- No cyanosis, clubbing, or edema

Respiratory System Examination

Inspection

- Nasal flaring present
- Intercostal and subcostal retractions present
- Chest movements reduced on right side

Palpation

- Reduced chest expansion on right side
- Tactile vocal fremitus increased on right lower zone

Percussion

- Dull note over right lower lung field

Auscultation

- Bronchial breath sounds heard over right lower zone
- Crepitations present
- Reduced air entry on affected side

Other System Examination

- Cardiovascular system: Normal
- Central nervous system: Conscious, no signs of meningitis
- Abdomen: Soft, non-tender

Provisional Diagnosis

Right lower lobe pneumonia

Differential Diagnosis

- Bronchiolitis
- Pulmonary tuberculosis
- Acute asthma exacerbation

Investigations

- Complete blood count: Raised total leukocyte count
- Chest X-ray: Right lower lobe consolidation
- CRP: Raised
- Oxygen saturation: 92% on room air

Management Plan

- Hospital admission
- Oxygen therapy
- Antibiotics as per age and weight
- Antipyretics
- Adequate hydration and nutrition
- Monitoring of respiratory distress

Final Diagnosis

Community-acquired pneumonia – right lower lobe

DISCUSSION POINTS FOR - MBBS VIVA

- Main symptoms of pneumonia: fever, cough, tachypnea, retractions, grunting, hypoxia

- Causes: bacterial (Streptococcus pneumoniae, H. influenzae), viral (RSV), atypical organisms

- Danger signs: inability to feed, lethargy, cyanosis, severe chest indrawing

- Examination hallmark: crepitations, decreased breath sounds, bronchial breathing

- Pneumonia classification: non-severe, severe, very severe based on WHO

- Management principles: antibiotics, oxygen, fluids, fever control, monitoring

PNEUMONIA IN CHILDREN – SYMPTOMS AND CAUSES

1. SYMPTOMS OF PNEUMONIA

Category	Symptoms
General Symptoms	Fever (high grade or moderate), malaise, irritability, poor feeding
Respiratory Symptoms	Cough (dry → productive), fast breathing (tachypnea), breathing difficulty, chest indrawing (intercostal/subcostal), nasal flaring, grunting
Auscultatory / Chest Findings	Crepitations, decreased breath sounds, bronchial breathing, dull percussion note
Severe Pneumonia Signs	Hypoxia ($SpO_2 < 92\%$), lethargy, inability to feed, convulsions, cyanosis
Associated Symptoms	Vomiting, abdominal pain (referred), wheeze (sometimes)

2. CAUSES OF PNEUMONIA IN CHILDREN

Cause Type	Organisms / Examples
Bacterial (most common)	Streptococcus pneumoniae, Haemophilus influenzae type b, Staphylococcus aureus, Streptococcus pyogenes
Atypical Bacterial	Mycoplasma pneumoniae, Chlamydophila pneumoniae
Viral Causes (common in infants)	Respiratory syncytial virus (RSV), Influenza virus, Parainfluenza, Adenovirus
Neonatal Causes	Group B Streptococcus, E. coli, Listeria monocytogenes
Nosocomial / Hospital-acquired	Pseudomonas aeruginosa, Klebsiella pneumoniae, MRSA
Fungal (in immunocompromised)	Pneumocystis jirovecii, Candida, Aspergillus
Other Factors / Predisposing Causes	Malnutrition, prematurity, congenital heart disease, aspiration (GERD, foreign body), exposure to smoke, lack of immunization

Nephritic Syndrome

(Clinical Posting Notes) – 07.12.2025

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1. Definition

- A renal disorder caused by **inflammation of glomeruli**, leading to **reduced GFR**, **hematuria**, **hypertension**, and **fluid overload**.
- Characterised by hematuria with RBC casts, mild proteinuria, edema, and hypertension.

---

2. Etiology (Common Causes in Children)

1. Post-streptococcal glomerulonephritis (most common)
2. IgA nephropathy
3. Lupus nephritis
4. Henoch–Schönlein purpura
5. Membranoproliferative GN
6. Infection-related GN
7. Complement pathway abnormalities

---

3. Key Clinical Features

- Edema: periorbital, pedal
- Hematuria: tea-coloured or cola-coloured urine
- Hypertension
- Oliguria
- Mild to moderate proteinuria
- Fever, sore throat or skin infection history (if post-streptococcal)
- Abdominal pain, headache due to fluid overload

color:red">Presence of hematuria + hypertension + oliguria strongly suggests nephritic syndrome.

Diagnostic Approach

(Step-wise Clinical and Laboratory Evaluation)

---

4. Step 1: Detailed History

- Recent sore throat, skin infection
- Onset of edema
- Decreased urine output
- Cola-coloured urine
- Headache, vomiting (due to hypertension)
- Joint pains or rash (IgA, HSP)
- Family history of renal disease

---

5. Step 2: Physical Examination

1. Vital signs: BP, pulse, respiratory rate
2. Edema: periorbital, pedal
3. Fluid overload signs: basal crepts, raised JVP
4. Abdominal palpation: enlarged kidneys (rare)
5. Skin: purpura (HSP), rashes (SLE)

Always measure blood pressure in every suspected nephritic child.

---

6. Step 3: Urinalysis (Most Important Investigation)

- Hematuria
- RBC casts
- Mild to moderate proteinuria
- Granular casts
- Specific gravity may be high

RBC casts are pathognomonic of glomerular inflammation.

---

7. Step 4: Blood Investigations

1. Serum creatinine, BUN: assess renal function
2. Serum electrolytes: sodium, potassium
3. Complement levels (C3, C4)
    - Low C3 typical in post-streptococcal GN
4. ASO titer (post-streptococcal)
5. ANA, dsDNA (if SLE suspected)
6. Complete blood count
7. ESR/CRP

---

8. Step 5: Imaging

- Ultrasound abdomen
    - Kidney size
    - Cortical echogenicity
    - Rule out obstruction

---

9. Step 6: Indications for Renal Biopsy

1. Persistent low complement > 8 weeks
2. Gross hematuria > 2–3 months
3. Nephrotic-range proteinuria
4. Renal failure at presentation
5. Suspected lupus nephritis
6. Rapidly progressive glomerulonephritis

Biopsy is not routinely required in typical post-streptococcal GN.

Management Approach

(Supportive + Etiology-based)

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10. General Management

1. Salt-restricted diet
2. Fluid restriction (if oliguria)
3. Monitor input-output
4. Daily weight
5. Bed rest during acute illness

---

11. Treatment of Hypertension

1. Nifedipine
2. Amlodipine
3. Severe cases may need IV antihypertensives

Hypertension is the most important complication needing urgent control.

---

12. Treatment of Edema / Fluid Overload

- Loop diuretics (furosemide)
- Oxygen if pulmonary edema
- Rarely dialysis if fluid overload is unmanageable

---

13. Antibiotics

- Given only if evidence of streptococcal infection
- Penicillin is preferred

---

14. Immunosuppression

- Not required in post-streptococcal GN
- Indicated in lupus nephritis, IgA nephropathy with severe features

---

15. Indications for Dialysis

1. Refractory fluid overload
2. Hyperkalemia
3. Severe hypertension unresponsive to medication
4. Uremic symptoms

Red Flags in Nephritic Syndrome

(With specific values for clinical posting and exams)

1. Hypertensive Emergency

- Blood pressure **> 95th percentile + 12 mmHg** for age
- OR
- **Systolic > 130 mmHg** in children below 13 years
- **Systolic > 140 mmHg** in adolescents
- Symptoms: headache, vomiting, altered sensorium
  BP above these limits is a medical emergency.

---

2. Severe Oliguria or Anuria

- Urine output
  - **< 0.5 ml/kg/hr** for more than 6 hours
  - OR
  - **< 300 ml/day** in older child
  - **Anuria (< 100 ml/day)**
    Persistent oliguria indicates acute kidney injury.

---

3. Rapid Rise in Creatinine

- **Serum creatinine rising > 0.5 mg/dl/day**
- OR
- **Doubling of creatinine** from baseline
  Suggests rapidly progressive glomerulonephritis.

---

4. Hyperkalemia

- **Potassium > 5.5 mEq/L**
- Very dangerous when
  - **> 6.0 mEq/L**
  - ECG changes present
    Requires immediate correction to prevent arrhythmias.

5. Pulmonary Edema (Fluid Overload)

- Respiratory distress
- Basal crepitations
- Hypoxia
- **Oxygen saturation < 92 percent**
  Pulmonary edema is a life-threatening complication.

---

6. Severe Edema With Complications

- Generalized edema
- Scrotal/genital edema
- Eye swelling with inability to open eyes
  Occurs when fluid overload is uncontrolled.

---

7. Encephalopathy

- Severe hypertension
- Seizures
- Visual disturbance
- Altered consciousness
  Neurological symptoms with high BP indicate hypertensive encephalopathy.

---

8. Metabolic Acidosis

- **pH < 7.2**
- **HCO_3 < 15 mEq/L**
  Often seen in advanced renal failure or severe fluid overload.

---

9. Dilutional Hyponatremia

- **Serum sodium < 125 mEq/L**
- Risk of seizures
  Hyponatremia of this level requires urgent correction.

REVISED POINTS -

Category	Key Points
Core features	Hematuria, hypertension, edema, oliguria
Most common cause	Post-streptococcal GN
Key diagnostic clue	RBC casts in urine
Important investigation	Serum C3
First-line treatment	Salt and fluid restriction, control of BP
Complications	Hypertensive encephalopathy, fluid overload, renal failure

Nephrotic Syndrome (Clinical Posting Notes)

1. Definition

A clinical condition characterized by

1. Heavy proteinuria
2. Hypoalbuminemia
3. Edema
4. Hyperlipidemia

---

2. Key Diagnostic Criteria

Nephrotic range proteinuria: >40 mg/m²/hr OR urine protein/creatinine ratio >2
Serum albumin < 2.5 g/dL
Generalized edema
Hypercholesterolemia (cholesterol > 200 mg/dL)

---

3. Clinical Features

1. Facial puffiness (morning worse)
2. Pedal edema
3. Scrotal or vulval swelling
4. Abdominal distension (ascites)
5. Weight gain
6. Decreased urine output
7. Infections may occur (peritonitis, cellulitis)

4. How to Diagnose Nephrotic Syndrome

Step-by-Step Diagnostic Approach

Step 1: History

- Duration and progression of edema
- Recent infections (especially respiratory)
- Decreased urine output
- History of frothy urine
- Past similar episodes
- Drug exposure
- Family history of renal disorders

Step 2: Physical Examination

- Edema: periorbital, dependent areas
- Blood pressure
- Abdominal distension
- Signs of infection
- Hydration status

Step 3: Urine Examination

1. Urine dipstick: 3+ or 4+ protein
2. Microscopy: few RBCs, occasional casts
   UPCR (urine protein/creatinine ratio > 2 confirms nephrotic range proteinuria

Step 4: Blood Tests

1. Serum albumin: low
2. Serum cholesterol and triglycerides: high
3. Serum creatinine and urea: usually normal in minimal change disease
4. CBC: may show hemoconcentration

Step 5: Additional Tests

- Complement levels (C3 normal in minimal change disease)
- ANA if systemic disease suspected
- Hepatitis B/C tests when indicated

Step 6: When to Do a Kidney Biopsy

Biopsy required if atypical presentation

1. Age < 1 year or > 12 years
2. Gross hematuria
3. Persistent hypertension
4. Low complement (C3)
5. Steroid resistance

5. Types of Nephrotic Syndrome

1. Minimal Change Disease (most common in children)
2. FSGS (focal segmental glomerulosclerosis)
3. Membranous nephropathy
4. Secondary nephrotic syndrome (SLE, infections, drugs)

---

6. Management Approach

Step 1: General Management

1. Salt restriction
2. Adequate calories and protein
3. Monitor weight and abdominal girth
4. Treat infections promptly

Step 2: Specific Management

Corticosteroids are first-line therapy

- Prednisolone 2 mg/kg/day for 6 weeks
- Followed by alternate day therapy

Step 3: Edema Control

1. Fluid restriction only if severe edema
2. Diuretics: furosemide
3. Albumin infusion in severe hypoalbuminemia

Step 4: Infection Prevention

High risk of peritonitis (especially pneumococcal)

- Empirical antibiotics when infection suspected
- Vaccinations: pneumococcal, influenza

Step 5: Management of Relapse

- Same steroid regimen in frequent relapsers
- Consider steroid-sparing agents (cyclophosphamide, MMF)

---

7. Red-Flag Signs (Must Not Miss)

Hypertension
Gross hematuria
Low complement levels
Steroid resistance
These suggest a diagnosis other than minimal change disease.

---

8. Complications

1. Infections (peritonitis, cellulitis)
2. Hypovolemia
3. Thrombosis (due to loss of antithrombin III)
4. Acute kidney injury
5. Malnutrition
6. Drug toxicity from long-term steroids

CASE OF TETRALOGY OF FALLOT (TOF) – PAEDIATRICS - MBBS

Identification Data

This is a case of a **4-year-old male child**, brought to the paediatrics outpatient department by his mother, who is a reliable informant.

Chief Complaints

1. Bluish discoloration of lips and tongue since infancy
2. Breathlessness on exertion since 2 years of age
3. Squatting episodes after exertion since 1 year
4. Poor weight gain since early childhood

History of Present Illness (HOPI)

The child was apparently normal at birth. The mother noticed **bluish discoloration of lips, tongue, and nail beds** at around **3 months of age**, which was initially mild but gradually increased over time. The cyanosis becomes more prominent during crying, feeding, and exertion.

Since the age of 2 years, the child has been experiencing **breathlessness on exertion**, especially while playing or walking fast. For the past 1 year, the child has developed a habit of **squatting after exertion**, which relieves breathlessness and cyanosis.

There is no history of fever, cough, recurrent respiratory infections, chest pain, or syncope. There is no history of edema, orthopnea, or paroxysmal nocturnal dyspnea. There is no history suggestive of rheumatic fever.

Antenatal History

- Mother was 25 years old at the time of pregnancy
- Antenatal checkups were irregular
- No history of fever, rash, or drug intake during pregnancy
- No history suggestive of TORCH infections
- No history of diabetes or hypertension

Natal History

- Full-term normal vaginal delivery
- Place of delivery: Government hospital
- Birth cry: Immediate
- Birth weight: 2.6 kg
- No history of birth asphyxia

Postnatal History

- No history of neonatal cyanosis requiring NICU admission
- No neonatal seizures
- No history of neonatal jaundice

Developmental History

- Motor milestones: appropriate for age -
- Social and language milestones: Appropriate for age
- The child tires easily compared to peers

Immunization History

- Immunized as per national immunization schedule

Nutritional History

- Mixed diet
- Poor appetite
- Weight below expected for age

Family History

- No family history of congenital heart disease
- No consanguinity

Personal History

- Appetite: Poor
- Sleep: Normal
- Bowel and bladder: Normal

General Examination

- Child is conscious and cooperative
- Cyanosis present (central and peripheral)
- Clubbing present (Grade II)
- Weight and height below expected for age
- No pallor, edema, or lymphadenopathy

Vital Signs

- Pulse: 98/min, regular
- Respiratory rate: 28/min
- Blood pressure: Normal for age
- Oxygen saturation: Reduced

Systemic Examination

Cardiovascular System

- Precordial bulge absent
- Apex beat: Normal position
- Systolic thrill present in left parasternal area
- Auscultation:
  - Ejection systolic murmur heard best at left upper sternal border
  - Single second heart sound

Respiratory System

- Chest clear
- No added sounds

Abdomen

- No hepatosplenomegaly

Central Nervous System

- Conscious and oriented
- No focal neurological deficit

Provisional Diagnosis

Tetralogy of Fallot – Cyanotic Congenital Heart Disease

Investigations

- **Chest X-ray:** Boot-shaped heart
- **ECG:** Right ventricular hypertrophy
- **Echocardiography:**
  - Ventricular septal defect
  - Right ventricular outflow tract obstruction
  - Overriding aorta
  - Right ventricular hypertrophy

Final Diagnosis

Tetralogy of Fallot

Management

- Avoid dehydration
- Treat hypoxic spells
- Beta-blockers if indicated
- Definitive management: **Surgical correction**
- Parental counseling

Peadiatrics clinical posting case based DISCUSSION - Q/ANS – 24.11.2025

- QUESTIONS

1. What are the components of Tetralogy of Fallot (TOF)
2. What is the natural history of TOF
3. What is the management of cyanotic congenital heart diseases
4. What is the management of acyanotic congenital heart diseases
5. What are the complications of TOF
6. What is the squatting equivalence and its significance
7. What syndromes are associated with TOF
8. Define Tetralogy of Fallot
9. What is Pentalogy of Fallot
10. What is Pink Fallot

1. Components of Tetralogy of Fallot (TOF)

1. Ventricular septal defect
2. Right ventricular outflow tract obstruction
3. Overriding of the aorta
4. Right ventricular hypertrophy

2. Natural History of TOF

1. Progressive cyanosis develops as RVOT obstruction worsens.
2. Hypoxic spells increase in frequency during infancy and early childhood.
3. Failure to thrive due to hypoxia.
4. Polycythemia develops as a compensatory mechanism.
5. Cerebrovascular complications may develop over time.
6. Without surgical correction, mortality increases in early childhood.

3. Management of Cyanotic Congenital Heart Diseases

Acute management (during cyanotic or hypercyanotic spells)

1. Knee–chest position
2. Oxygen administration
3. Morphine to reduce respiratory drive
4. Propranolol to reduce infundibular spasm
5. IV fluids to maintain preload
6. Sodium bicarbonate for severe acidosis
7. Intubation and ventilation if severe

Definitive management

1. Total surgical repair
2. Repair usually between 6 to 12 months of age
3. Components include VSD closure and relieving RVOT obstruction
4. Palliative shunts if early surgery is not possible (modified Blalock–Taussig shunt)

---

4. Management of Acyanotic Congenital Heart Diseases

(Acyanotic lesions include VSD, ASD, PDA, etc.)

1. Medical management for heart failure
2. Diuretics such as furosemide
3. ACE inhibitors
4. Digoxin in selected cases
5. Nutritional support for infants
6. Surgical or device closure of defects when indicated
7. Timing depends on lesion size, symptoms, and effect on pulmonary circulation

---

5. Complications of TOF

1. Hypoxic (tet) spells
2. Cerebral abscess
3. Stroke due to polycythemia
4. Infective endocarditis
5. Arrhythmias
6. Heart failure in later stages
7. Long-term complications after repair such as pulmonary regurgitation

6. Squatting Equivalence and Its Significance

Squatting in TOF

1. Child instinctively squats during cyanotic episodes.
2. Squatting increases systemic vascular resistance.
3. Higher systemic resistance reduces right-to-left shunt across the VSD.
4. More blood flows to pulmonary circulation, improving oxygenation.

Knee–chest position

1. Clinical equivalent of squatting for infants.
2. Used during acute cyanotic spells.

---

7. Syndromes Associated with TOF

1. DiGeorge syndrome (22q11.2 deletion)
2. Down syndrome
3. Alagille syndrome
4. CHARGE association
5. VACTERL association

---

8. Definition of Tetralogy of Fallot

1. A congenital cyanotic heart disease
2. Characterised by four components: VSD, RVOT obstruction, overriding aorta, RV hypertrophy

9. Pentalogy of Fallot

1. All four components of TOF
2. Plus an additional atrial septal defect (ASD)

10. Pink Fallot

1. A physiological variant of TOF
2. RVOT obstruction is mild
3. Minimal right-to-left shunt
4. Child remains acyanotic or mildly cyanotic

TOF vs Pink Fallot vs Pentalogy of Fallot

Feature	Tetralogy of Fallot (TOF)	Pink Fallot	Pentalogy of Fallot
Definition	Classical cyanotic congenital heart disease with 4 components	Variant of TOF with mild RVOT obstruction and minimal cyanosis	TOF with an additional ASD
Major Components	1. VSD 2. RVOT obstruction 3. Overriding aorta 4. RV hypertrophy	Same 4 components as TOF	Same 4 components as TOF
Additional Defect	None	None	Atrial septal defect
RVOT Obstruction	Moderate to severe	Mild	Variable
Cyanosis	Present, often early	Minimal or absent	Present depending on RVOT obstruction
Shunt Direction	Right to left shunt across VSD	Mostly left to right or balanced	Right to left if obstruction significant
Clinical Presentation	Cyanosis, squatting, hypoxic spells	Mild symptoms, often acyanotic	Similar to TOF; may have more mixing due to ASD
Oxygen Saturation	Low	Near normal	Low to moderately low
Heart Murmur	Harsh ejection systolic murmur due to RVOT obstruction	Softer murmur due to mild obstruction	Similar murmur to TOF
Natural History	Progressive cyanosis, spells, complications if untreated	Less severe, may progress as obstruction increases	Similar to TOF
Management	Complete surgical repair (VSD closure + RVOT relief)	Surgical repair when symptoms increase	Surgical repair including ASD closure
Prognosis	Good after repair	Better than typical TOF	Similar to TOF depending on defect size

FOR NOTES -

CASE OF CEREBRAL PALSY - (PAEDIATRICS) - MBBS

Identification Data

Name: Baby X
Age: 2 years 6 months
Sex: Male
Address: —
Informant: Mother
Reliability: Reliable

Chief Complaints

1. Delay in achieving developmental milestones since infancy
2. Stiffness of both lower limbs since 9 months of age
3. Difficulty in standing and walking since 1 year of age

History of Present Illness (HOPI) -

The child was apparently normal at birth. According to the mother, the child showed delay in achieving motor milestones from early infancy. The child attained partial head control at around 6 months of age but was unable to sit without support even after 1 year.

At around 9 months of age, the mother noticed increased stiffness in both lower limbs, which was more evident while changing clothes or attempting to make the child stand. The stiffness gradually increased over time. The child is unable to stand or walk independently till date.

There is no history of loss of previously attained milestones. There is no history of fever, seizures, trauma, or central nervous system infection after the neonatal period. The child also has difficulty in feeding, especially with semisolid foods, and takes prolonged time to finish meals.

There is no history suggestive of sensory loss, vision or hearing problems as per parental observation.

Antenatal History

Mother was 25 years old at the time of pregnancy. Antenatal checkups were irregular. There was a history of pregnancy-induced hypertension during the third trimester. There was no history of fever, rash, radiation exposure, or intake of teratogenic drugs during pregnancy.

Natal History

- Place of delivery: Government hospital
- Type of delivery: Normal vaginal delivery
- Gestational age: Term
- Birth cry: Delayed
- Resuscitation: Required
- Birth weight: 2.3 kg

Postnatal History

The baby had a NICU stay of 4 days due to birth asphyxia. There is no history of neonatal seizures. There is no history of severe neonatal jaundice requiring exchange transfusion.

Developmental History -----

but in exam you have write in detail – examiner will ask more question on this -

Milestone	Status
Social smile	Achieved at 3 months
Head control	Partial at 6 months
Sitting	Not achieved
Standing	Not achieved
Walking	Not achieved
Speech	Only monosyllables
Social interaction	Present

Immunization History

Immunization is complete as per the National Immunization Schedule.

Nutritional History

The child was exclusively breastfed for the first 6 months. Weaning was delayed. Currently, the child is undernourished for age.

Family History

There is no history of similar illness in the family. No history of consanguineous marriage.

Personal History

Appetite is poor. Sleep is disturbed. Bowel and bladder habits are normal.

General Examination

- Conscious and alert
- Weight below 3rd percentile for age
- Pallor present
- No cyanosis, clubbing, edema, or lymphadenopathy
- Head circumference reduced for age

Systemic Examination

Central Nervous System

- Higher mental functions: Appropriate for age
- Muscle tone: Increased in both lower limbs
- Muscle power: Reduced in both lower limbs
- Deep tendon reflexes: Exaggerated
- Plantar reflex: Extensor bilaterally
- Primitive reflexes: Persistent

Other Systems

Cardiovascular, respiratory, and abdominal examinations are within normal limits.

Provisional Diagnosis

Spastic Diplegic Cerebral Palsy due to perinatal birth asphyxia.

Investigations

- MRI brain: Features suggestive of periventricular leukomalacia
- EEG: Normal
- Vision and hearing assessment advised

Final Diagnosis

Spastic Diplegic Cerebral Palsy

Management Plan

- Regular physiotherapy
- Occupational therapy
- Speech therapy
- Nutritional rehabilitation
- Parent counselling and regular follow-up

Exam Points ----------

- Cerebral palsy is non-progressive
- No regression of milestones
- Birth asphyxia is a common cause
- Physiotherapy is the cornerstone of management

Cerebral Palsy – Viva Questions & Answers-

1. What is Cerebral Palsy?

Cerebral palsy is a group of permanent, non-progressive disorders of movement and posture caused by damage to the developing brain occurring in the antenatal, perinatal, or early postnatal period.

---

2. Why is Cerebral Palsy called non-progressive?

Because the brain injury does not worsen with time, although the clinical manifestations may change as the child grows.

---

3. What are the common causes of Cerebral Palsy?

The most common causes are birth asphyxia, prematurity, low birth weight, neonatal infections, severe neonatal jaundice, and antenatal maternal factors like hypertension or infections.

---

4. Which period is most commonly associated with CP?

The perinatal period, especially due to birth asphyxia and prematurity.

---

5. How is Cerebral Palsy classified?

It is classified based on motor type into spastic, dyskinetic, ataxic, and mixed, and based on limb involvement into hemiplegic, diplegic, and quadriplegic.

---

6. Which is the most common type of Cerebral Palsy?

Spastic cerebral palsy is the most common type.

---

7. What type of CP is seen in your case?

Spastic diplegic cerebral palsy.

- ## 8. What is spastic diplegia?
- It is a type of cerebral palsy where both lower limbs are predominantly affected with increased muscle tone and exaggerated reflexes.
- ---
- ## 9. What are the earliest signs of Cerebral Palsy?
- Delayed motor milestones, poor head control, abnormal muscle tone, and persistence of primitive reflexes.
- ---
- ## 10. How do you differentiate Cerebral Palsy from muscular dystrophy?
- In cerebral palsy, there is no loss of previously attained milestones, whereas muscular dystrophy shows progressive muscle weakness and regression.
- ---
- ## 11. What is the importance of history in CP diagnosis?
- A detailed antenatal, natal, and postnatal history helps identify risk factors like birth asphyxia and prematurity, which supports the diagnosis.
- ---
- ## 12. What are the common associated conditions with CP?
- Epilepsy, intellectual disability, speech delay, visual impairment, hearing loss, and feeding difficulties.
- ---
- ## 13. Why are primitive reflexes persistent in CP?
- Due to damage to higher cortical centers that normally inhibit primitive reflexes.
- ---
- ## 14. What investigations are useful in Cerebral Palsy?
- MRI brain is the most useful investigation. EEG is done if seizures are present.
- ---
- ## 15. What MRI finding is common in spastic diplegia?
- Periventricular leukomalacia.
- ---
- ## 16. Is Cerebral Palsy a genetic disorder?
- No, cerebral palsy is usually an acquired condition, not a genetic disorder.
- ---

- ## 17. What is the cornerstone of management of Cerebral Palsy?
- Physiotherapy is the cornerstone of management.
- ---
- ## 18. Is there any curative treatment for Cerebral Palsy?
- No, there is no curative treatment. Management is supportive and rehabilitative.
- ---
- ## 19. What is the role of drugs in CP?
- Drugs like baclofen or diazepam are used to reduce spasticity, and antiepileptics are used if seizures are present.
- ---
- ## 20. What advice should be given to parents?
- Parents should be counseled that CP is non-progressive, early intervention improves outcome, long-term therapy is required, and regular follow-up is essential.
- ---
- ## 21. What is the prognosis of Cerebral Palsy?
- Prognosis depends on severity and type. Mild cases may walk independently, while severe cases need lifelong support.
- ---
- ## 22. Can Cerebral Palsy be prevented?
- Some cases can be prevented by good antenatal care, skilled delivery, early neonatal care, and prevention of birth asphyxia.
- ---
- ## 23. What is the most important exam point in CP?
- Cerebral palsy is **non-progressive** and **does not show regression of milestones**.

CASE OF FEVER WITH HEPATOSPLENOMEGALY (PAEDIATRICS) – MBBS

Identification Data

This is a case of a 6-year-old male child, Master X, brought to the paediatrics outpatient department by his father, who is a reliable informant.

Chief Complaints

1. Fever for 10 days
2. Abdominal distension for 7 days
3. Reduced appetite for 10 days

History of Present Illness (HOPI)

The child was apparently well 10 days back when he developed fever. The fever was high-grade, intermittent in nature, and associated with chills. There was no definite diurnal variation. Fever was partially relieved with antipyretics.

After 3 days of fever, the parents noticed progressive abdominal distension. The distension was gradual in onset and non-painful. There was no history of abdominal pain, vomiting, or altered bowel habits.

The child also had poor appetite and generalized weakness during this period. There is no history of rash, bleeding manifestations, jaundice, cough, breathlessness, or joint pain. There is no history of seizures or altered sensorium.

There is no history of similar illness in the past and no history of recent travel. There is no history of contact with tuberculosis.

Past History

- No history of recurrent fever

- No previous hospital admissions
- No history of blood transfusion

Antenatal History

- Mother had regular antenatal check-ups
- No history of maternal infections, fever, or drug intake during pregnancy

---

Natal History

- Full-term normal vaginal delivery
- Birth cry present immediately
- Birth weight: 2.8 kg
- No NICU admission

Postnatal History

- No history of neonatal jaundice, seizures, or infections

Developmental History

- Developmental milestones achieved as per age

Immunization History

- Immunized as per National Immunization Schedule

Nutritional History

- Mixed diet
- Appetite reduced since illness

Family History

- No family history of similar illness
- No history of hematological disorders

Personal History

- Appetite: Reduced
- Sleep: Disturbed due to fever
- Bowel and bladder habits: Normal

General Examination

- Child is conscious and cooperative
- Febrile
- Pallor present
- No icterus, cyanosis, clubbing, or edema
- No significant lymphadenopathy

Vital Signs

- Temperature: 101.8°F
- Pulse: 110/min
- Respiratory rate: 24/min
- Blood pressure: Normal for age

Systemic Examination

Per Abdomen

- Abdomen mildly distended
- Liver palpable 4 cm below right costal margin, firm, smooth, non-tender
- Spleen palpable 3 cm below left costal margin
- No ascites
- Bowel sounds present

Other Systems

- Cardiovascular system: Normal
- Respiratory system: Clear
- Central nervous system: Conscious, no focal deficits

Provisional Diagnosis

Fever with Hepatosplenomegaly – under evaluation

Differential Diagnosis

1. Malaria
2. Enteric fever
3. Viral hepatitis
4. Kala-azar
5. Hematological malignancy

Investigations

- Complete blood count
- Peripheral smear for malaria parasite
- Rapid malaria antigen test
- Liver function tests
- Blood culture
- Widal test
- Ultrasonography abdomen

Management Plan

- Antipyretics
- Adequate hydration
- Empirical antibiotics after investigations
- Specific treatment based on confirmed diagnosis
- Nutritional support
- Close monitoring

Final Diagnosis (After Investigations)

Falciparum Malaria presenting with fever and hepatosplenomegaly

---

Exam Points -

- Fever with hepatosplenomegaly in children needs systematic evaluation
- Always rule out malaria and enteric fever first
- Pallor with organomegaly suggests hematological causes

VIVA QUESTIONS – WITH ANSWERS

1. What is the duration of fever?

Answer:
The child has fever for 10 days.

---

2. What is the nature of fever?

Answer:
The fever is high-grade and intermittent.

---

3. Is the fever associated with chills or rigor?

Answer:
Yes, the fever is associated with chills.

---

4. Is there any diurnal variation in fever?

Answer:
No definite diurnal variation is noted.

---

5. Does the fever respond to antipyretics?

Answer:
Yes, the fever is partially relieved with antipyretics.

---

6. Since when was abdominal distension noticed?

Answer:
Abdominal distension was noticed for the last 7 days.

---

7. Is the abdominal distension sudden or gradual?

Answer:
It is gradual in onset.

- ## 8. Is abdominal distension associated with pain?
- **Answer:**
  No, there is no abdominal pain.
- ---
- ## 9. Any history of vomiting or loose stools?
- **Answer:**
  No history of vomiting or loose stools.
- ---
- ## 10. Any history of jaundice?
- **Answer:**
  No history of jaundice.
- ---
- ## 11. Any history of bleeding manifestations?
- **Answer:**
  No history of bleeding from any site.
- ---
- ## 12. Any history of rash?
- **Answer:**
  No history of rash.
- ---
- ## 13. Any history of cough or breathlessness?
- **Answer:**
  No history of cough or breathlessness.
- ---
- ## 14. Any history of altered sensorium or seizures?
- **Answer:**
  No history of altered sensorium or seizures.
- ---
- ## 15. Any similar illness in the past?
- **Answer:**
  No history of similar illness in the past.
- ---
- ## 16. Any recent travel history?
- **Answer:**
  No significant travel history.

- ## 17. Any contact with tuberculosis?
- **Answer:**
  No history of contact with tuberculosis.
- ---
- ## 18. What does fever with hepatosplenomegaly suggest?
- **Answer:**
  It suggests infections like malaria or enteric fever, viral illnesses, or hematological disorders.
- ---
- ## 19. What is the most common cause to rule out first?
- **Answer:**
  Malaria should be ruled out first.
- ---
- ## 20. Why is pallor important in this case?
- **Answer:**
  Pallor suggests anemia, which may point towards malaria or hematological causes.
- ---
- ## 21. Why is hepatosplenomegaly significant?
- **Answer:**
  It indicates systemic involvement and helps narrow differential diagnoses.
- ---
- ## 22. What are the important differentials?
- **Answer:**
  Malaria, enteric fever, viral hepatitis, kala-azar, and hematological malignancy.
- ---
- ## 23. What investigations will you order first?
- **Answer:**
  CBC, peripheral smear for malaria, malaria antigen test, and liver function tests.
- ---
- ## 24. What is your provisional diagnosis?
- **Answer:**
  Fever with hepatosplenomegaly under evaluation.
- ---

- 25. What is the final diagnosis in this case?
- **Answer:**
  Falciparum malaria presenting with fever and hepatosplenomegaly.

FOR NOTES -

CASE OF SEVERE ACUTE MALNUTRITION (SAM) – PAEDIATRICS - MBBS

Identification Data

This is a case of a **2-year-old male child**, brought to the paediatrics outpatient department by his mother, who is a reliable informant.

Chief Complaints

- Failure to gain weight since the last 6–8 months
- Reduced appetite since 4 months
- Loose stools on and off for 10 days
- Recurrent episodes of fever in the last 3 months

History of Present Illness (HOPI)

The child was apparently normal till around **14 months of age**, after which the mother noticed **poor weight gain and gradual thinning of the body**. Over the last **6 to 8 months**, the child has failed to gain adequate weight compared to peers.

For the past **4 months**, the child has had a **reduced appetite**, eats very small quantities, and often refuses feeds. The mother reports that the child becomes tired easily and remains inactive most of the time.

For the last **10 days**, the child has been passing **loose stools**, 3–4 times per day, watery in consistency, without blood or mucus. There is no history of vomiting. There is no history of abdominal distension.

The child has had **recurrent episodes of fever** over the past **3 months**, each lasting 2–3 days, partially relieved with medication. There is no history of cough, breathlessness, or seizures.

There is **no history of edema of feet or face**, and no history suggestive of tuberculosis. There is no loss of previously attained developmental milestones.

Past History

- No previous hospital admissions
- No history of severe infections like pneumonia or meningitis
- No known chronic illness

Antenatal History

- Mother was 24 years old at the time of pregnancy
- Antenatal check-ups were irregular
- No history of fever, rash, or drug intake during pregnancy
- No history suggestive of maternal malnutrition

Natal History

- Full-term normal vaginal delivery
- Place of delivery: Government hospital
- Birth cry: Immediate
- Birth weight: 2.4 kg

Postnatal History

- No NICU admission
- No neonatal complications

Feeding History (Very Important)

- Exclusively breastfed for only **2 months**
- Early introduction of diluted animal milk
- Complementary feeding started late at **10 months**
- Diet inadequate in quantity and quality
- Low protein and calorie intake

Immunization History

- Immunization partially completed
- Missed booster doses

Developmental History

- Social smile: Achieved at 3 months
- Head control: Achieved at 4 months
- Sitting: Achieved at 9 months
- Walking: Achieved at 16 months
- Currently developmentally appropriate for age

Family History

- Low socioeconomic status
- No family history of tuberculosis
- No sibling deaths

Personal History

- Appetite: Poor
- Sleep: Disturbed
- Bowel: Loose stools
- Bladder: Normal

General Examination

- Weight: 6.5 kg (Below −3 SD for age)
- Height: Reduced for age
- Mid-upper arm circumference (MUAC): 10.8 cm
- Pallor: Present
- Edema: Absent
- Hair: Sparse, thin
- Skin: Dry, loose folds present

Systemic Examination

Gastrointestinal System

- Abdomen soft
- No organomegaly

Respiratory System

- Normal breath sounds

Cardiovascular System

- Heart sounds normal

Central Nervous System

- Conscious, alert
- No focal neurological deficit

Assessment

Based on:

- Weight-for-height < −3 SD
- MUAC < 11.5 cm
- Absence of edema

The child is diagnosed with **Severe Acute Malnutrition – Non-edematous type (Marasmus)**.

Investigations (Suggested) -

- Hemoglobin
- Blood glucose
- Serum electrolytes
- Stool examination

Management Plan ---- in viva examinaer will ask -

- Admit child as per SAM protocol
- Start **F-75 therapeutic feeding**
- Treat dehydration and infections
- Micronutrient supplementation
- Gradual transition to **F-100**
- Nutrition rehabilitation and counselling

Final Diagnosis

Severe Acute Malnutrition (Marasmus)

Exam Points -

- SAM is a **medical emergency**
- Always assess feeding history
- Weight and MUAC are key diagnostic tools

VIVA QUESTIONS & ANSWERS – Severe Acute Malnutrition (SAM)

ON CHIEF COMPLAINTS ------

Q1. What are the common chief complaints in a child with SAM?

Answer:
The common chief complaints are failure to gain weight, poor appetite, recurrent infections such as fever or diarrhea, lethargy, and sometimes loose stools or vomiting.

Q2. Why is "failure to gain weight" an important chief complaint?

Answer:
Failure to gain weight indicates chronic undernutrition and helps in early identification of growth faltering, which is a key feature of severe acute malnutrition.

Q3. Can edema be a chief complaint in SAM?

Answer:
Yes, edema can be a chief complaint in edematous SAM (Kwashiorkor), usually presenting as swelling of feet or face.

HISTORY OF PRESENT ILLNESS (HOPI) ----------

Q4. What points are important to include in HOPI for SAM?

Answer:
Duration of weight loss or poor weight gain, appetite changes, history of diarrhea or fever, activity level of the child, and history of recurrent infections should be included.

Q5. Why is duration important in HOPI of malnutrition?

Answer:
Duration helps differentiate acute malnutrition from chronic malnutrition and indicates the severity and progression of the condition.

Q6. Is loss of milestones seen in SAM?

Answer:
No, loss of previously attained milestones is usually not seen in uncomplicated SAM. Developmental delay may occur, but regression suggests another pathology.

Q7. Why do children with SAM have recurrent infections?

Answer:
Malnutrition leads to impaired immunity, making the child more susceptible to repeated infections.

Q8. What significance does diarrhea have in HOPI?

Answer:
Diarrhea worsens malnutrition by causing loss of nutrients and dehydration, and it is both a cause and consequence of SAM.

FEEDING HISTORY (MOST IMPORTANT) -------

Q9. Why is feeding history the most important part of a SAM case?

Answer:
Because inappropriate feeding practices are the most common cause of severe acute malnutrition.

Q10. What feeding history points should be asked in SAM?

Answer:

- Duration of exclusive breastfeeding
- Age of introduction of complementary feeding
- Type and quantity of feeds
- Feeding frequency
- Dilution of milk or feeds

Q11. What is the ideal duration of exclusive breastfeeding?

Answer:
Exclusive breastfeeding should be given for the first **6 months** of life.

Q12. What feeding error commonly leads to SAM?

Answer:
Early stopping of breastfeeding, delayed complementary feeding, diluted animal milk, and inadequate calorie and protein intake.

Q13. Why is delayed complementary feeding harmful?

Answer:
After 6 months, breast milk alone is insufficient to meet nutritional needs, leading to calorie and protein deficiency.

Q14. What type of diet is usually seen in children with SAM?

Answer:
A diet low in calories, proteins, and micronutrients, often consisting of diluted milk or insufficient home foods.

Q15. How does socioeconomic status affect feeding?

Answer:
Low socioeconomic status often leads to food insecurity, lack of dietary diversity, and poor feeding practices.

QUICK VIVA - (VERY IMPORTANT) --- How to diagnose -----

- SAM is diagnosed by: Weight-for-height < −3 SD or MUAC < 11.5 cm
- Most common cause of SAM: Inadequate feeding practices
- Most important history: Feeding history
- HOPI must include: Duration, infections, appetite, activity

---

CASE OF BRONCHIOLITIS (PAEDIATRICS) - MBBS

Identification Data

This is a case of a 7-month-old male infant, brought to the paediatrics emergency department by his mother, who is a reliable informant.

Chief Complaints -

- Cough since 3 days
- Fast breathing since 2 days
- Difficulty in feeding since 2 days
- Fever since 1 day

History of Present Illness (HOPI)

The child was apparently well 3 days back, when he developed cough, which was initially mild and dry in nature. Over the next day, the cough increased in frequency and became associated with noisy breathing.

Since the last 2 days, the mother noticed fast breathing, which was gradual in onset and progressively increased. The child also developed difficulty in feeding, characterized by frequent pauses during breastfeeding and early fatigue while feeding.

Since 1 day, the child developed low-grade fever, which was intermittent and not associated with chills or rigors. There is no history of high-grade fever.

There is no history of choking, foreign body aspiration, cyanosis, or apnea. There is no history of vomiting or diarrhea. The child had symptoms of running nose and nasal congestion prior to the onset of cough.

There is no history of similar episodes in the past. There is no history of contact with tuberculosis. There is no history of hospital admission earlier.

Past History

- **No previous hospitalizations**
- **No previous episodes of wheez**

Antenatal History

- Mother was 25 years old at the time of pregnancy
- Antenatal period was uneventful
- Regular antenatal checkups taken
- No history of fever, rash, or drug intake during pregnancy

Natal History

- Full-term normal vaginal delivery
- Delivered at a hospital
- Birth cry present immediately
- Birth weight: 2.8 kg

Postnatal History

- No NICU admission
- No neonatal jaundice
- No neonatal infections

Developmental History

- Development appropriate for age
- Achieved social smile and neck control as per milestones

Immunization History

- Immunized as per National Immunization Schedule for age

Nutritional History

- Exclusively breastfed
- No bottle feeding

Family History

- No history of asthma or atopy in family
- No similar illness in siblings

Personal History

- Appetite: Decreased
- Sleep: Disturbed due to cough
- Urine output: Adequate

General Examination

- Child is irritable but conscious
- Weight appropriate for age
- Temperature: Mildly raised
- Respiratory rate: Increased for age
- No pallor, cyanosis, clubbing, or edema

Systemic Examination

Respiratory System

- Chest movements: Bilaterally equal
- Use of accessory muscles present
- Intercostal and subcostal retractions present
- On auscultation:
  - Bilateral wheezing
  - Fine crepitations heard
  - Prolonged expiratory phase

Cardiovascular System

- S1 and S2 heard normally
- No murmurs

Central Nervous System

- **Conscious**
- **No focal neurological deficit**

Per Abdomen

- **Soft**
- **No organomegaly**

Provisional Diagnosis

Acute Bronchiolitis

Differential Diagnosis

- **Bronchial asthma**
- **Pneumonia**
- **Foreign body aspiration**

Investigations

- **Mostly clinical diagnosis**
- **Pulse oximetry to assess oxygen saturation**
- **Chest X-ray not routinely required**

Management

- **Oxygen therapy if saturation < 92%**
- **Adequate hydration**
- **Nasal saline drops and suction**
- **Antipyretics for fever**
- **No routine antibiotics**
- **Monitoring for respiratory distress**

Final Diagnosis –

Acute Viral Bronchiolitis, most likely due to Respiratory Syncytial Virus (RSV).

Exam Points –

- **Bronchiolitis commonly occurs in infants < 2 years**
- **Viral etiology**
- **Wheeze with signs of respiratory distress**
- **Management is mainly supportive .**

VIVA QUESTIONS & ANSWERS --------

1. What are chief complaints?

Answer:
Chief complaints are the **main problems** for which the patient is brought to the hospital, stated **in the patient's or caregiver's words**, along with their **duration**.

---

2. How should chief complaints be written in paediatrics?

Answer:
Chief complaints should be written **point wise**, with **duration**, based on the **informant's history**, since children cannot explain their symptoms themselves.

---

3. What were the chief complaints in this case?

Answer:

- Cough since 3 days
- Fast breathing since 2 days
- Difficulty in feeding since 2 days
- Fever since 1 day

---

4. What is HOPI?

Answer:
HOPI stands for **History of Present Illness**. It is a **chronological and detailed description** of the child's illness from onset till presentation.

---

5. Why is HOPI important in paediatrics?

Answer:
HOPI helps in:

- Identifying the **sequence of symptoms**
- Assessing **severity and progression**
- Differentiating between similar conditions

---

6. How should HOPI be presented?

Answer:
HOPI should be presented:

- In **chronological order**
- In **full sentences**
- Mentioning **onset, progression, associated symptoms, and negatives**

---

7. What was the first symptom in this case?

Answer:
The first symptom was **cough**, which started 3 days before admission.

---

8. How did the cough progress?

Answer:
The cough was initially mild and dry, later increased in frequency and was associated with noisy breathing.

---

9. Why is feeding difficulty important in infants?

Answer:
Difficulty in feeding indicates:

- Increased respiratory distress
- Poor oxygenation
- Severity of illness

---

10. How was fever described in this case?

Answer:
The fever was **low-grade, intermittent**, and not associated with chills or rigors.

---

11. What associated symptoms were present?

Answer:

- Running nose
- Nasal congestion

---

12. What important negative history was taken?

Answer:

- No history of cyanosis
- No apnea
- No foreign body aspiration
- No vomiting or diarrhea

---

13. Why is negative history important?

Answer:
Negative history helps to:

- Rule out differential diagnoses
- Narrow down the diagnosis

---

14. Was there any past history of similar illness?

Answer:
No, there was no history of similar episodes in the past.

---

15. Why is past wheeze history important?

Answer:
It helps differentiate:

- Bronchiolitis (first episode)
- Bronchial asthma (recurrent episodes)

---

16. Why is TB contact history taken?

Answer:
To rule out **tuberculosis**, which can present with chronic respiratory symptoms.

---

17. How does HOPI help in diagnosing bronchiolitis?

Answer:
HOPI shows:

- Viral prodrome
- Progressive respiratory distress
- Feeding difficulty
- Absence of high fever
  which are typical of bronchiolitis.

---

18. One-line summary of HOPI for this case?

Answer:
A 7-month-old infant with viral prodromal symptoms, followed by cough, progressive fast breathing, feeding difficulty, and low-grade fever.

---

19. What is the common mistake students make in HOPI?

Answer:

- Writing symptoms without sequence
- Missing duration
- Not mentioning negative history

---

20. What is the golden rule for HOPI in viva?

Answer:
"Chronology, clarity, and completeness."

CASE OF SIMPLE FEBRILE SEIZURE (PAEDIATRICS) - MBBS

Identification Data

This is a case of a **2-year-old male child**, brought to the paediatrics emergency department by his mother, who is a **reliable informant**.

Chief Complaints

1. Fever since **1 day**
2. One episode of seizure associated with fever since **today morning**

History of Present Illness (HOPI)

The child was apparently well one day prior to admission when he developed fever. The fever was of **sudden onset**, **high grade**, and **intermittent** in nature. It was not associated with chills or rigors. There was no history of rash, vomiting, loose stools, or cough.

Today morning, during a febrile episode, the child suddenly developed a seizure. The seizure was **generalized tonic-clonic in nature**, involving all four limbs, and was associated with **upward rolling of eyes**. There was no history of focal movements. The seizure lasted for approximately **2 minutes** and stopped on its own.

There was **no history of cyanosis**, **no tongue bite**, and **no loss of bladder or bowel control**. After the seizure, the child cried immediately and became drowsy for a short period, following which he returned to his baseline activity.

There is **no history of multiple seizures within 24 hours**. There is **no history of similar episodes in the past**. There is **no history suggestive of CNS infection**, such as persistent vomiting, altered sensorium, neck stiffness, or bulging fontanelle.

History of Fever

- Duration: 1 day
- Onset: Sudden
- Grade: High
- Pattern: Intermittent
- Response to antipyretics: Fever subsides partially

Past History

There is **no history of previous seizures**, hospitalization, head injury, or chronic illness.

Birth History

- Term baby
- Normal vaginal delivery
- Birth cry: Immediate
- Birth weight: 2.8 kg
- No NICU admission

Developmental History

Developmental milestones are appropriate for age in all domains.

Immunization History

The child is immunized as per the national immunization schedule.

Nutritional History

The child is on an age-appropriate mixed diet with no feeding difficulties.

Family History

There is **no family history of epilepsy or febrile seizures**.

Personal History

- Appetite: Slightly reduced due to fever
- Sleep: Disturbed during fever
- Bowel and bladder habits: Normal

General Examination

- Child is conscious and responsive
- Temperature: Elevated
- Pulse: Normal for age
- Respiratory rate: Normal
- No pallor, cyanosis, clubbing, or edema

Systemic Examination

Central Nervous System

- Conscious and oriented
- No signs of meningeal irritation
- Tone and power: Normal
- Reflexes: Normal
- No focal neurological deficit

Other Systems

Cardiovascular, respiratory, and abdominal examinations are within normal limits.

Provisional Diagnosis

Simple Febrile Seizure

Justification of Diagnosis

- Age between 6 months and 5 years
- Generalized tonic-clonic seizure
- Duration less than 15 minutes
- Single seizure episode in 24 hours
- No neurological deficit
- No CNS infection

Differential Diagnosis

- Complex febrile seizure
- CNS infection
- Epilepsy
- Electrolyte imbalance

Investigations

- No routine investigations required
- CBC and basic tests if fever source is unclear

Management

- Reassurance of parents
- Antipyretics for fever control
- Identification and treatment of fever cause
- No long-term antiepileptic drugs required

Prognosis

- Excellent
- Low risk of recurrence
- No long-term neurological sequelae

Final Diagnosis ------

Simple Febrile Seizure

VIVA QUESTIONS & ANSWERS -

Q1. What are the chief complaints in this case?

Answer:
The chief complaints are fever since one day and one episode of seizure associated with fever since today morning.

Q2. Why is fever mentioned before seizure in chief complaints?

Answer:
Because fever is the precipitating factor for the seizure and helps establish the temporal relationship between fever and seizure.

Q3. How do you describe fever in the history?

Answer:
The fever was of sudden onset, high grade, intermittent in nature, and partially relieved by antipyretics, with no associated chills, rigors, or rash.

Q4. How do you describe the seizure episode in HOPI?

Answer:
The seizure was generalized tonic-clonic, involving all four limbs, associated with upward rolling of eyes, lasting for about two minutes, and resolved spontaneously.

Q5. Why is the duration of seizure important in HOPI?

Answer:
Duration helps differentiate simple febrile seizure, which lasts less than 15 minutes, from complex febrile seizure.

Q6. Why do you ask about focal movements?

Answer:
Presence of focal movements suggests a complex febrile seizure or underlying neurological pathology.

Q7. Why is post-ictal period important in history?

Answer:
In simple febrile seizure, post-ictal drowsiness is brief, and the child returns to baseline quickly.

Q8. Why do you ask about multiple seizures within 24 hours?

Answer:
Multiple seizures within 24 hours suggest complex febrile seizure.

Q9. Why do you ask about previous similar episodes?

Answer:
Previous afebrile seizures raise suspicion of epilepsy.

Q10. Why do you ask about loss of bladder or bowel control?

Answer:
It helps in seizure characterization and supports generalized seizure activity.

Q11. Why is history of CNS infection important?

Answer:
To rule out meningitis or encephalitis, which can present with fever and seizures.

Q12. Why is age mentioned in HOPI?

Answer:
Febrile seizures occur between 6 months and 5 years of age.

Q13. Why do you ask about developmental milestones?

Answer:
Normal development supports the diagnosis of simple febrile seizure and rules out underlying neurological disorders.

Q14. Why is family history relevant?

Answer:
Family history of febrile seizures increases the risk of recurrence.

Q15. How do you justify this as a simple febrile seizure from HOPI?

Answer:
Because the child is between 6 months and 5 years, had a single generalized seizure lasting less than 15 minutes, associated with fever, with no focal features or neurological deficit.

Q16. What points in HOPI help rule out epilepsy?

Answer:
No afebrile seizures, normal development, no past seizure history, and seizure occurring only during fever.

Q17. Why do you ask about trauma in HOPI?

Answer:
To rule out head injury as a cause of seizure.

Q18. Why is return to baseline important?

Answer:
Quick recovery supports benign nature of simple febrile seizure.

Q19. What is the most important HOPI point in febrile seizure?

Answer:
Temporal association of seizure with fever.

Q20. How should HOPI be concluded in viva?

Answer:
By summarizing fever-associated single generalized seizure with rapid recovery and no neurological deficit.

Always narrate **HOPI in sequence**:
Fever → Seizure → Duration → Type → Recovery → Negative history.

ANAEMIA WITH HEPATOSPLENOMEGALY (PAEDIATRICS) – MBBS

Identification Data -

This is a case of a 6-year-old male child who was brought to the paediatrics outpatient department by his mother, who is a reliable informant.

Chief Complaints

1. **Easy fatigability and weakness since 3 months**
2. **Pallor noticed by parents since 2 months**
3. **Abdominal distension since 1 month**
4. **Reduced appetite since 1 month**

History of Present Illness (HOPI)

The child was apparently well three months ago when the mother noticed that he started getting tired easily while playing and showed reduced activity compared to other children of the same age. Over the next few weeks, the parents observed progressive paleness of the skin, especially noticeable over the face, palms, and conjunctiva.

Since the last one month, the mother noticed gradual abdominal distension, more prominent in the upper abdomen. There was no associated abdominal pain. Appetite has been reduced for the same duration. There is no history of fever, vomiting, diarrhea, jaundice, bleeding from any site, or weight loss. There is no history of breathlessness at rest, chest pain, or swelling of feet.

There is no history suggestive of recurrent infections. No history of blood transfusion in the past. There is no history of similar illness in siblings.

Past History

- **No history of previous hospital admissions**
- **No history of chronic illness**
- **No history of blood transfusions**

Birth History

- Full-term normal vaginal delivery
- Birth weight: 2.8 kg
- No birth asphyxia
- No NICU stay

Developmental History

- Developmental milestones achieved appropriate for age
- No history of developmental delay or regression

Immunization History

- Immunized as per national immunization schedule

Nutritional History

- Mixed diet
- Diet predominantly cereal-based
- Poor intake of green leafy vegetables and fruits
- No regular intake of iron-rich foods

Family History

- No history of anemia, hemoglobinopathy, or blood disorders
- No consanguinity

Personal History

- Appetite: Decreased
- Sleep: Normal
- Bowel and bladder habits: Normal

General Examination

- **Child is conscious and cooperative**
- **Build and nourishment: Moderately built, mildly undernourished**
- **Pallor: Present**
- **Icterus: Absent**
- **Cyanosis: Absent**
- **Clubbing: Absent**
- **Lymphadenopathy: Absent**
- **Edema: Absent**

Vital Signs:

- **Pulse: 102/min**
- **Respiratory rate: 22/min**
- **Blood pressure: 96/60 mmHg**
- **Temperature: Afebrile**

Anthropometry

- **Weight: Below expected for age**
- **Height: Appropriate for age**

Systemic Examination

Per Abdomen Examination

- **Abdomen distended**
- **Liver palpable 4 cm below right costal margin, soft, non-tender, smooth surface**
- **Spleen palpable 3 cm below left costal margin, firm, non-tender**
- **No ascites**

Cardiovascular System

- **Tachycardia present**
- **Flow murmur heard**
- **No signs of cardiac failure**

Respiratory System

- Bilateral air entry present
- No added sounds

Central Nervous System

- Conscious and oriented
- Normal tone and reflexes

Provisional Diagnosis

Moderate to severe anemia with hepatosplenomegaly, likely nutritional anemia with compensatory extramedullary hematopoiesis.

Differential Diagnosis

1. Iron deficiency anemia
2. Hemolytic anemia
3. Thalassemia
4. Chronic infection–related anemia

Investigations

- Hemoglobin: 6.8 g/dL
- Peripheral smear: Microcytic hypochromic anemia
- Serum ferritin: Low
- Reticulocyte count: Normal
- Liver function test: Normal
- Ultrasound abdomen: Hepatomegaly and splenomegaly

Final Diagnosis

Iron deficiency anemia with hepatosplenomegaly

Management Plan ------

1. Oral iron therapy
2. Nutritional counseling
3. Deworming
4. Follow-up hemoglobin after 4 weeks
5. Parent education regarding diet and compliance

Exam Points ------

- Hepatosplenomegaly in anemia suggests increased hematopoietic activity
- Always rule out hemolytic and congenital causes
- Nutritional history is key in pediatric anemia

VIVA – QUESTIONS -

Q1. What are the chief complaints in this child?

Answer:
The child has easy fatigability and weakness for 3 months, pallor noticed by parents for 2 months, abdominal distension for 1 month, and reduced appetite for 1 month.

Q2. Why is easy fatigability an important complaint?

Answer:
Easy fatigability suggests reduced oxygen-carrying capacity of blood due to anemia, leading to early exhaustion even with minimal activity.

Q3. Since when has pallor been noticed and who noticed it?

Answer:
Pallor has been noticed for the past 2 months and was first observed by the parents, especially over the face and palms.

Q4. How do you correlate pallor with anemia?

Answer:
Pallor occurs due to decreased hemoglobin levels, resulting in reduced blood coloration visible in skin and mucous membranes.

Q5. What is the significance of abdominal distension in this case?

Answer:
Abdominal distension suggests enlargement of abdominal organs, mainly the liver and spleen, which can occur due to increased hematopoietic activity in anemia.

Q6. Is the abdominal distension associated with pain?

Answer:
No, the abdominal distension is painless, which supports organ enlargement rather than inflammatory or surgical causes.

Q7. Why is reduced appetite relevant in the history?

Answer:
Reduced appetite may be both a cause and an effect of anemia, leading to poor nutritional intake and worsening of the condition.

Q8. Is there any history of fever?

Answer:
No, there is no history of fever, which makes chronic infection or acute inflammatory causes less likely.

Q9. Why is absence of jaundice important?

Answer:
Absence of jaundice reduces the likelihood of hemolytic anemia as the primary cause.

Q10. Why did you ask about bleeding from any site?

Answer:
Chronic blood loss is a common cause of anemia, and ruling out bleeding helps narrow the diagnosis.

Q11. Is there any history of breathlessness?

Answer:
There is no history of breathlessness at rest, indicating that the child is not in cardiac failure despite anemia.

Q12. Is there any history of previous blood transfusion?

Answer:
No, there is no history of blood transfusion, which helps rule out transfusion-dependent anemias.

Q13. Why did you ask about recurrent infections?

Answer:
Recurrent infections may suggest underlying hematological or immunological disorders causing anemia.

Q14. Is there any history of similar illness in siblings?

Answer:
No, there is no history of similar illness in siblings, which reduces the likelihood of hereditary anemia.

Q15. How does the duration of symptoms help in diagnosis?

Answer:
The gradual and progressive onset over months suggests a chronic condition, such as nutritional anemia, rather than an acute illness.

Q16. What does progressive pallor indicate?

Answer:
Progressive pallor indicates worsening anemia due to ongoing deficiency or inadequate treatment.

Q17. Why is the absence of developmental delay important?

Answer:
It suggests that anemia developed later in childhood and has not affected early neurodevelopment.

Q18. What does painless hepatosplenomegaly suggest in anemia?

Answer:
It suggests compensatory extramedullary hematopoiesis rather than acute infection or malignancy.

Q19. Why is nutritional history important in HOPI?

Answer:
Nutritional deficiency, especially iron deficiency, is the most common cause of anemia in children.

Q20. Summarize the HOPI in one line.

Answer:
A 6-year-old child with gradually progressive anemia presenting with easy fatigability, pallor, reduced appetite, and painless hepatosplenomegaly.

JAUNDICE WITH HEPATOSPLENOMEGALY (PAEDIATRICS) MBBS

Identification Data

This is a case of a 6-year-old male child, Master A, who was brought to the paediatrics outpatient department by his mother, who is a reliable informant.

Chief Complaints

- **Yellowish discoloration of eyes and skin since 10 days**
- **Fever since 7 days**
- **Abdominal distension since 5 days**
- **Decreased appetite since 10 days**

History of Present Illness (HOPI)

The child was apparently normal 10 days back when the mother noticed yellowish discoloration of the eyes, which gradually progressed to involve the skin. The discoloration was insidious in onset and progressively increasing in intensity.

Seven days prior to presentation, the child developed fever, which was moderate to high grade, intermittent in nature, and associated with chills. There was no history of rigor or convulsions. Fever was partially relieved with antipyretics.

Five days prior to admission, the mother noticed abdominal distension, mainly in the upper abdomen. There was no history of abdominal pain or vomiting. The child also had reduced appetite and complained of generalized weakness.

There is a history of passing dark-colored urine for the past one week. There is no history of clay-colored stools. There is no history of bleeding manifestations such as epistaxis, gum bleeding, or melena.

There is no history of altered sensorium, excessive sleepiness, or behavioral changes. There is no history of drug intake, blood transfusion, or recent travel. No similar complaints were noted in family members.

Past History

There is no history of similar illness in the past. No history of previous hospitalization or blood transfusion.

Antenatal and Birth History

The child was born full-term by normal vaginal delivery. There were no antenatal complications. Birth cry was immediate. Birth weight was appropriate for gestational age. No NICU admission was required.

Immunization History

Immunization is complete as per the National Immunization Schedule.

Nutritional History

The child is on a mixed diet. Appetite has reduced since the onset of illness. No history suggestive of malnutrition.

Family History

There is no history of jaundice, liver disease, or hemolytic disorders in the family. No consanguinity.

Personal History

- Appetite: Decreased
- Sleep: Disturbed due to fever
- Bowel habits: Normal
- Urine: Dark-colored

General Examination

The child is conscious, cooperative, and oriented.

- Pallor: Present

- Icterus: Present
- Cyanosis: Absent
- Clubbing: Absent
- Edema: Absent
- Lymphadenopathy: Absent

Vital signs are stable.

Anthropometry

Weight and height are appropriate for age.

Systemic Examination

Abdominal Examination

- Inspection: Abdominal distension present
- Palpation:
  - Liver palpable 4 cm below right costal margin, firm, smooth, non-tender
  - Spleen palpable 3 cm below left costal margin
- Percussion: Liver span increased
- Auscultation: Normal bowel sounds

Other Systems

- Cardiovascular system: Normal
- Respiratory system: Normal
- Central nervous system: No abnormality detected

Provisional Diagnosis

Jaundice with Hepatosplenomegaly, most likely due to **infective hepatitis**.

Differential Diagnosis

- Viral hepatitis
- Malaria
- Enteric fever
- Hemolytic anemia

Investigations

- Complete blood count
- Liver function tests
- Peripheral smear for malaria
- Viral markers (HAV, HEV)
- Ultrasound abdomen

Management Plan

- Hospital admission and monitoring
- Adequate hydration
- Antipyretics
- Nutritional support
- Avoid hepatotoxic drugs
- Treat underlying cause after confirmation

Final Diagnosis (After Investigations)

Acute Viral Hepatitis presenting with Jaundice and Hepatosplenomegaly

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- Jaundice with hepatosplenomegaly in children suggests systemic or infective causes
- Always rule out malaria and hemolysis
- Dark urine indicates conjugated hyperbilirubinemia
