TUTORIAL 1

HISTORY TAKING

OVERALL OBJECTIVES:

At the end of this module, students are expected to acquire the art of appropriate history taking by:

a. Eliciting the chief complaints i.e. the reasons for presentation
b. Evaluating each complaint through questioning
c. Assessing relevant positive and negative aspects in the history that contribute to the most likely diagnosis

Followings need to be taken into account when taking a paediatric history

History taking from both parents and the child is an important art for the interpretation of clinical signs in children of varying ages.

SYMPTOMATOLOGY

A symptom is a normal physiologic response to a harmful stimulus. Every symptom and sign has a beginning and a course of development that may be progressive.

Symptoms and signs are products of the body that produced them. Each body creates symptoms and signs in a unique way, and each personality adapts to them its own way.

One symptom by itself usually means very little. It is its relationship to other symptoms that is significant. For instance, vomiting accompanied by abdominal pain in the lower right quadrant may suggest appendicitis, while vomiting with headache and failing vision could lead one to suspect something causing increased intracranial pressure.

Symptoms are either subjective or objective, or both. Subjective symptoms are those perceptible only to the patient such as sensory disturbances i.e. pain, tenderness, headache, nausea, itching and numbness. Pain and itching are pure subjective symptoms.

Objective symptoms which are evident to the observer are called physical signs like temperature, pulse rate and rhythm, respiratory rate and character, oedema, and gait.

In order to elaborate a symptom fully, we need to ask the relevant questions and duration of each symptom related to patients' complaints. Paediatric patients presenting with the following symptoms should be enquired about:

1. FEVER

- Mode of onset of fever: sudden or gradual
- Associated with rigors or sweating
- High or low grade
- Pattern of fever: continuous, remittent or intermittent
- Associated with vomiting, diarrhoea, abdominal pain, headache or burning on micturition

2. COUGH

- Severity and frequency
- Sudden vs gradual (foreign body)
- Occurs during a special time of day or night
- Seasonal or associated with dust, pollen or perfumes
- Abnormal sounds while coughing (croupy, whooping cough)
- Colour changes while coughs (cyanosis)
- Dry or productive
- Colour of sputum or presence of blood

3. VOMITING

- Frequency of vomiting
- Forceful or projectile
- Relationship between food and vomiting (may be meningitis)
- Special time of vomiting (early morning: may be space occupying lesion)
- Amount, smell, colour and contents of vomitus: yellow, bile stained or feculent
- Any other associated symptoms like heart burn or epigastric pain

4. DIARRHOEA

- Loose motions: intermittent or continuous
- If intermittent: duration which patient is free from symptoms
- Frequency of stools passed per day (count per 24hrs period)
- Colour, quantity, odour and contents of stool
- Any blood in stools: red or black / separate or mixed in stools
- Any history or eating out / bottle feeding/ formula feeding
- Any history of diarrhoea in any other family member staying with child
- History of pain during defecation
- When last did the child passed urine?
- History of administration of ORS and if made appropriately
- Check if the child is vaccinated for Rota virus vaccination

5. PAIN

- Site of pain
- Localised or diffuse
- Continuous or intermittent
- If radiates to which direction
- Dull, burning, colicky or stabbing
- Intensity of pain: mild, moderate or severe /excruciating
- Factors which aggravate or relieve pain
- Does it affect sleep, play and activity (growing pains vs pathological pains)

6. FITS

- Generalised or localised
- First episode or repeat
- Previous history of fits and the time duration

- Frequency and time duration of each fit
- Type: myoclonic/tonic/clonic/ atonic/absence
- Any loss of consciousness or history of aura
- Weakness or hemiparesis thereafter
- Any history of fall, head trauma or loss of sphincteric control
- Any other associated symptoms like tongue bite, froth in the mouth, deviation of eye balls during the attack
- Family history of epilepsy or fits

7. WEAKNESS

- Mode of onset: sudden or gradual
- Extent of weakness: generalised or localised to one part of body like one arm or one leg (monoplegia), one half of the body (hemiplegia), both legs (paraplegia), or one half of the face (facial palsy)
- Grade of weakness:
    - **Grade** 0: No contraction or muscle movement
    - **Grade 1:** Trace muscle activation, such as a twitch, without achieving full range of motion
    - **Grade** 2: Movement at the joint with gravity eliminated
    - **Grade** 3: Movement against gravity, but not against added resistance
    - **Grade** 4: Movement against external resistance with less strength than usual
- Any other associated symptoms like loss of consciousness, fever, headache, neck rigidity, loss of sensations or presence of tremors
- History or trauma / head injury or fever in the past
- Feeling week at rest or after prolonged use of muscles (myasthenia gravis)

8. HEADACHE

- Character: dull, shooting or throbbing
- Continuous or intermittent
- If intermittent: duration and frequency of each attach
- Related to any particular time of the day
- Relieving or aggravating factors
- Part of head involved: one half (migraine), frontal or occipital region
- Any associated symptoms like vomiting, nausea, impairment of vision or consciousness
- History of head injury, hypertension, neck rigidity, or loss of consciousness
- History of blurred vision or unable to see black boards in school children

9. LUMP OR MASS

- Site, size and number of lumps
- Then note its surface, consistency, mobility, tenderness and fluctuation
- Note skin over the mass: fixed or mobile
- Any sinus formation over the swelling
- Note lymph nodes: swollen, separate or matted together

HISTORY TAKING

In order to have correct diagnosis we need a perfect history, good clinical examination and laboratory investigations. Following general but important points need to be noted before starting an interview with the child, parents or the caregivers.

1. See the patient in private room if possible and listen carefully to everything that is said.
2. Introduce yourself and make the acquaintance of both the child and parent.
3. Light banter about the weather or how they found the travelling to hospital help to break the ice.
4. A detailed discussion with the parents and the child is very important step towards correct diagnosis, identification of the problems and further management.
5. Don't jump to conclusions prematurely or you may come with wrong answers.
6. Let the child or the parents tell the story in their own way & words and make notes as you go along. At the same time an occasional guiding question will keep the story going in the right direction. Show interest and concern for the patient's problems.
7. Listen to the voice, but also watch the facial impressions, body movements and hand positions. These may provide additional information. The actions will often provide information about the underlying emotional state as well as giving an indication as to the reliability of information being supplied.
8. Collect the patient's information without expressing surprise or making judgments. It is unethical to comment adversely on another practitioner's or clinical nurse's previous treatment. Neither you nor the patient has enough information to pass the judgment. The information you receive may sometimes be falsified by the parents for fear of possible accusation of neglect, for compensation or even insurance purposes. Information can also be suppressed because of fear. Mothers may misinterpret symptoms but rarely invent them.
9. Avoid "why did not you" questions – they may lead to hostility and consequent lack of co-operation as the parent / guardian feels threatened. The same question can be phrased in a less accusing form.
10. Parents experience reactions to health problems like fear and anxiety. Reassurance must be given and fears relieved whenever possible.
11. Be sure that you understand what the patient or parents mean and that they understand what you mean. This is of greater importance especially when interpreters have to be used. Always use lay terms for questions and explanations.
12. When taking history, make notes of both positive and negative findings and define the problems. From this you should be able to decide which system must be examined in detail. This history will often produce a working diagnosis but keep an open mind until full examination is completed.
13. After taking history and doing clinical examination define the patient's problem. Explain each problem and its management to the parents and when they should see you again.
14. Warn the patients / parents of possible complications or danger signs which may occur and what to do in that event.
15. Remember there are three assessments to be made:
    a. The physical diagnosis and the plan of management
    b. The assessment of patients hidden but unspoken fear about the child's problem
    c. The assessment of parents' capability of understanding the nature of the problem and the likelihood of their following your advice

BACKGROUND AND BASIC INFORMATION

A complete database entails the following:

1. **Name & surname:** for identification
2. **Age & date of birth:** certain conditions are common in early childhood others in later life like Wilms' tumour is present in childhood and malignancy and vascular disorders common in older patients
3. **Gender:** Certain conditions present in males others in females like Haemophilia never occur in females and gout and ankylosing spondylitis has preponderance in males
4. **Religion & Church affiliation:** to understand the problems that may arise in certain situations like: blood transfusions are not accepted by the people practicing Jehovah's Witness; Muslims & Jews both practice circumcision in early childhood
5. **Parents' Name and Surname:** their cell and telephone numbers at home & at work
6. **Residential address:** to understand social circumstances around the child and the fact that certain diseases & conditions are common in certain areas. Secondly a future correspondence may be required.
7. **Informant:** name and relation to the patient. If the informant is other than the mother, elaborate the reason?
8. **Details of Doctor who referred the patient:** family physician & his/her address. Document if patient is not a referral case – self referral?
9. **Place of consultation:** consulting rooms, outpatient department, causality or paediatric ward
10. **Date and time** of your consultation
11. Name of the ward or the unit (if admitted)
12. Name and qualifications of admitting doctor

PRESENTING COMPLAINTS

A presenting symptom (chief complaint) is that symptom, or group of symptoms, about which the patient complains or seeks relief. Chief complaints which have brought the patient to the doctor are arranged in chronological order i.e. complaint of longest duration at the top and that of shortest duration in the last.

Each complaint should be written in one line and should be brief. Where possible, write down the information offered in their own word like if the Parents say that the child has shortness of breath or difficulty in breathing do not decide to write "dyspnoea".

Date the commencement of symptoms precisely and completely and use adjectives with each complain like fever with rigors for 5 days instead of fever for 5 days.

HISTORY OF PRESENT ILLNESS

Details of each complaint are asked in chronological order by asking additional questions to bring out full description of individual symptom. Avoid asking leading questions and do not use technical terminologies, instead if possible, write down the history in the patient's own words. While describing the symptoms, following general points need to be noted:

1. **Duration of symptoms:** ascertain the duration by asking "were you alright before such period of time". Date the commencement of symptoms precisely and completely, like diarrhoea started on 25th Dec 2019 – that is 5 days ago.

2. **Health status:** immediately prior to the present illness & how long ago the patient was completely well
3. **Mode of onset:** to ask if the symptoms appear suddenly or gradually
4. **Disease course, sequence and period separating new symptoms:** to ask if the symptoms have been present continuously since their onset or have there been intervals of freedom – note length of these intervals.
5. **Factors** aggravating or relieving symptoms
6. **Associated phenomena:** to ask if any other symptoms associated with the main complaints like abdominal pain due to intussusception may be associated with vomiting, diarrhoea or blood in stools and pain in right upper quadrant may be associated with jaundice & pale stools in obstructive jaundice.
7. **Treatment received and duration** - whether the symptoms are improving or getting worse or of the same nature. History of drug allergy should be asked as well.
8. **Possible exposure to infectious diseases** or recent travel or visits to malaria areas
9. Relevant negative data obtained by direct questioning e.g. no visits to possible malaria areas
10. **If the symptoms occur in clusters or attacks** – a typical attack should be described with regard to frequency, duration and degree of symptoms

SYSTEMIC ENQUERY

Questions related to all body systems can be asked but special emphasis should be made on systems involved.

- **SKIN:** Skin temperature, skin colour, pruritus, hydration, eczema and other skin rashes – associated medication / environmental exposure etc.
- **EYES:** Vision, glasses, infection, allergies and strabismus, swelling discharge
- **ENT:** Hearing, pain, nose obstruction, snoring, runny nose, epistaxis, sneezing, caries teeth, stomatitis, sore throat, tonsillitis, adenitis, mouth breathing etc.
- **RESPIRATORY SYSTEM:** Cough, wheeze, shortness of breath, strider, cyanosis, sputum, haemoptysis, asthma, foreign body, snoring, mouth breathing and enquiry about precipitating factors like exercise, dust, animals. Ability to speak full sentence with wheeze
- **GASTROINTESTINAL SYSTEM:** Weight loss or abnormal weight gain, appetite, vomiting, haemochezia, constipation, diarrhoea, jaundice, melena, worms in stool, pain and thirst.
- **CARDIOVASCULAR SYSTEM:** Shortness of breath, tires while feeding, excessive sweating (in infants it is sign of CCF), limitation of exercise, oedema, palpitations, haemoptysis and cyanosis.
- **CENTRAL NERVOUS SYSTEM:** Headache, mental state, seizures, tremors, paralysis, sight, hearing, behaviour, inattention or hyperactivity, ataxia, weakness, gait, co-ordination, dizziness, muscle and joint swelling & pains, weakness and postural deformity.
- **GENITOURINARY SYSTEM:** Frequency, bladder control, dysuria, character of stream, urine colour (be aware of the pigments resembling blood) enuresis, and vaginal discharge.
- **ENDOCRINE SYSTEM:** Growth, polyuria, polydipsia, apathy, hoarse voice, muscularity, menstruation, breast and testes and growth of pubic and axillary hair.

- **HAEMOPOITIC SYSTEM:** Pallor, tiredness, shortness of breath, bleeding tendency, bruising, enlarged glands and spleen.

PAST HISTORY

This should not be confused with the earlier symptoms of the present condition but this includes attacks of a similar nature when a long interval has elapsed. Following points need to be kept in mind:

1. Diseases of childhood such as rheumatic fever, whooping cough, mumps, measles or primary pulmonary tuberculosis should be enquired or any history of relevant disease in the past.
2. Any history of trauma, accident, surgery, visit abroad, intake of "herbal medications, herbal enemas or scarification from traditional healers.
3. History of any previous admission in the hospital may indicate the seriousness of the disease like child with uncontrolled chronic persistent asthma admitted twice since last month.

BIRTH HISTORY

Birth history is particularly important in young infants which should be confirmed by looking into the Road to Health Booklet. Salient points should include:

1. **ANTENATAL HISTORY**
   - Age of mother
   - Gravida, para, abortions, perinatal deaths
   - Birth weight and health of previous infants
   - Gestational age at birth of the index patient
   - Planned or unplanned pregnancy
   - Foetal growth and wellbeing
   - Complications of pregnancy e.g. eclampsia, gestational diabetes
   - HIV status and CD_4 count and viral load if HIV infected
   - Antiretroviral prophylaxis or treatment detail
   - Results of WR or RPR – treatment if syphilis was diagnosed
   - Blood group of mother
   - Exposure to medicines, smoking, alcohol
2. **NATAL HISTORY**
   - Date and place of delivery
   - Duration and mode of delivery
   - History of foetal distress
   - Other problems during labour and delivery
   - Medication received by mother
   - Apgar score and if baby needed resuscitation
   - Estimated gestational age
   - Birth weight, length, head circumference
   - Vitamin K and medications given to the baby
   - Congenital abnormalities
3. **POSTNATAL HISTORY**
   - History of admission in nursery, NICU – duration
   - Breathing problems
   - Jaundice, anaemia, cyanosis

- Skin rashes or history of haemorrhage

4. FEEDING PROBLEMS

- A 24-hour dietary history is useful when assessing a feeding problem of child with signs and symptoms of malnutrition
- Breast feeding problems: poor latching, small nipples or cracked nipples
- Formula feeding: formula type, change of formula, volume, frequency, preparation and dilution of feeds
- Weaning age, solid foods and supplements and appetite
- Food intolerance, food allergy, weight gain or loss

CHILD HEALTH RECORD

1. IMMUNIZATION

Check if the immunisation is up to date on road to health booklet. Following is the current schedule of EPI South Africa

Birth	OPV (0)	BCG			
6 W	OPV (1)	DTaP-IPV // Hib (1)	Hep B (1)	PCV (1)	RV (1)
10 W		DTaP-IPV // Hib (2)	Hep B (2)		
14 W		DTaP-IPV // Hib (3)	Hep B (3)	PCV (2)	RV (2)
9 M	Measles (1)			PCV (3)	
18 M	Measles (2)	DTaP-IPV // Hib (4)			
6 Y (M/F)		Td vaccine			
12 Y (M/F)		Td vaccine			

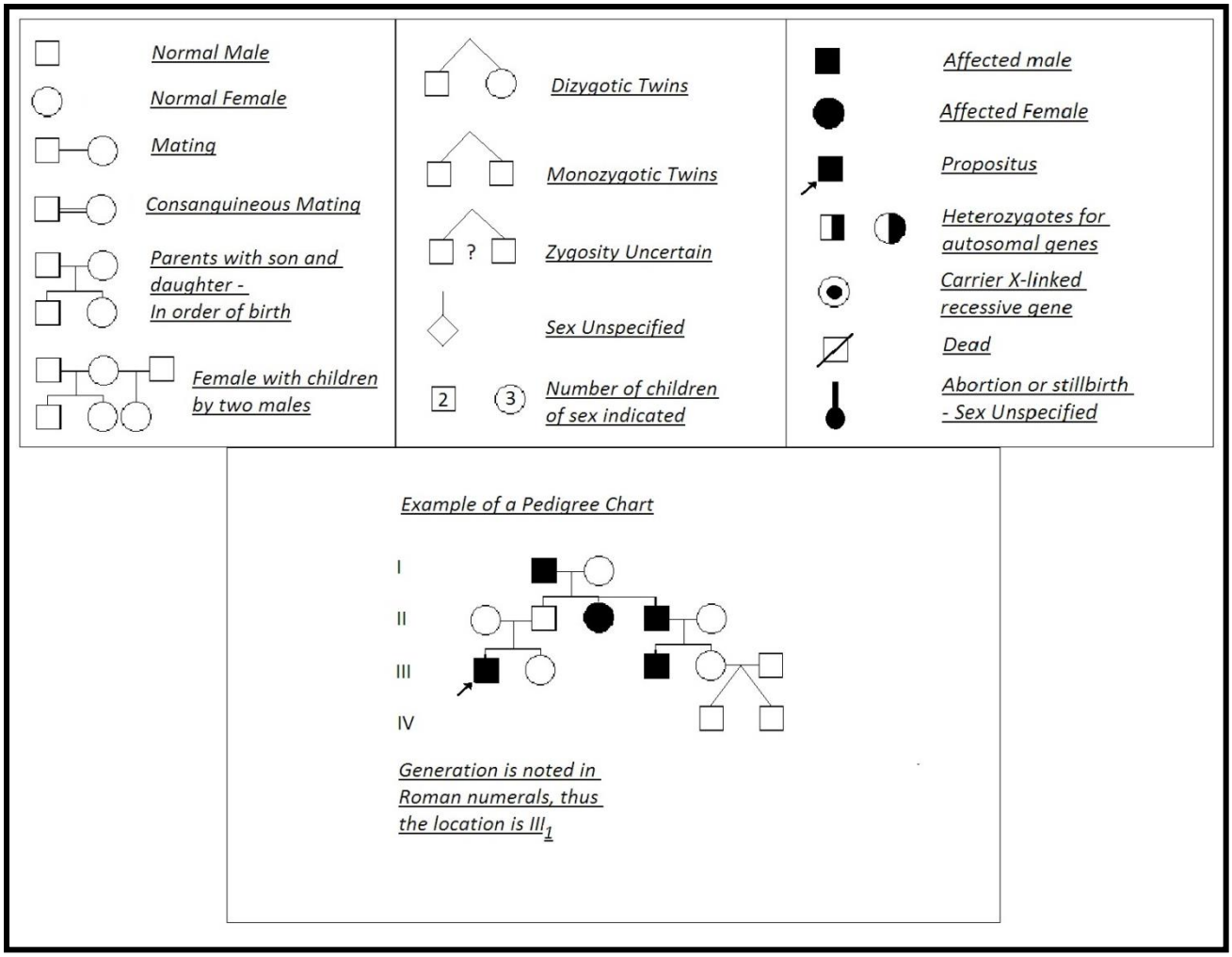
Non-EPI vaccines: MMR & Varicella: @ 15 months & Cervirex (HPV) for F @ 12 yrs.
RV vaccine is not administered after 24 months

Preterm infants: if acutely ill, vaccinations are deferred until recovered. All vaccinations are given at chronological age and not the corrected age. BCG is aslo deferred until infant is ready to be discharged. Side effects like skin rash and fever are not worse than term infants. Of note use of acellular pertussis in current EPI-SA is safe and does not cause apnoea as it was the case with cellular pertussis vaccine.

2. CLINIC VISITS: Growth monitoring, vitamin A administration and deworming

FAMILY HISTORY

Ask about the number of family members, both males and females and their health. In case of suspected heriditary or familial type e.g. haemophilia, mental retardation, and myopathies a detailed family history is required including consanguinity, pregnancy or child loss. Pedigrees are often used to determine the mode of inheritance of genetic diseases. A sample pedigree is as follows:



Diseases like hypertension, diabetes, epilepsy, certain renal and cardiovascular diseases, rheumatic fever also have familial background. Tuberculosis is very common in South Africa, thus any history of tuberculosis in the family should always be enquired.

SOCIAL HISTORY

A detailed history about the psycho-social circumstances of the family where child functions must be taken as follows:

- Primary care giver
- Occupation and employment history of parents
- Housing, sanitation and movement
- Financial situation like paternal support, grants and employment
- Long parental absences from home and support systems: family, friends
- Marital state and stability
- Psychiatric diseases, substance abuse, alcohol and smoking
- Family violence, traumatic family episodes, deaths, divorce or accidents
- Recreation as a family

The aspects listed above are sensitive, thus indirect questioning should be used. By observing family interaction and body language good amount of information can be gathered. A simple question like “what do you as a family do for recreation and leisure,” can provide sufficient information about interpersonal relationships within the family.