First draft 19th September, 2000
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Clinical bedside class: another way of teaching clinical skills.

1. **Select cases admitted in the ward having very similar clinical signs but having different diagnosis.**
   Example: oedema because of malnutrition cardiac failure or nephrotic syndrome.

2. Write down the bed no of these patients in separate sheet of paper for case allotment latter.

3. Collect students in a place where they can be divided in-group of three or four. Ideally this place should have a writing board and chairs for students to do group work.

4. Introduce the topic to be discussed
Example: oedema and its pathophysiology.

5. Ask the student to list the diseases that causes oedema.
Example: cardiac failure, nephrotic syndrome and malnutrition.

6. Ask students to formulate simple questions for history that will help to identify the diseases. Remind them that these are the parents observations and not as observed by a health worker.
Example: Does the child have difficulty in breathing? Is he breathing very fast? Where do you notice the swelling first? How long the child has swelling?

7. Ask students to formulate questions that will correlate the past events if present, may relate to the present situations.
Example: Does the child have diarhoea in the past? If yes, how long and how severe? Does the child have joint swelling and fever in the past? Does the child have sore throat or skin wound in the past?

8. Ask students to list signs they want to look for the specific disease?
Example: Pallor, cyanosis, jaundice, oedema, stunting, wasting, tachypnoea, abnormal pulse, blood pressure, raised Jugular venous pressure, abnormal heart sounds and added sounds, basal crackles, enlarged liver, free fluid in the peritoneum.

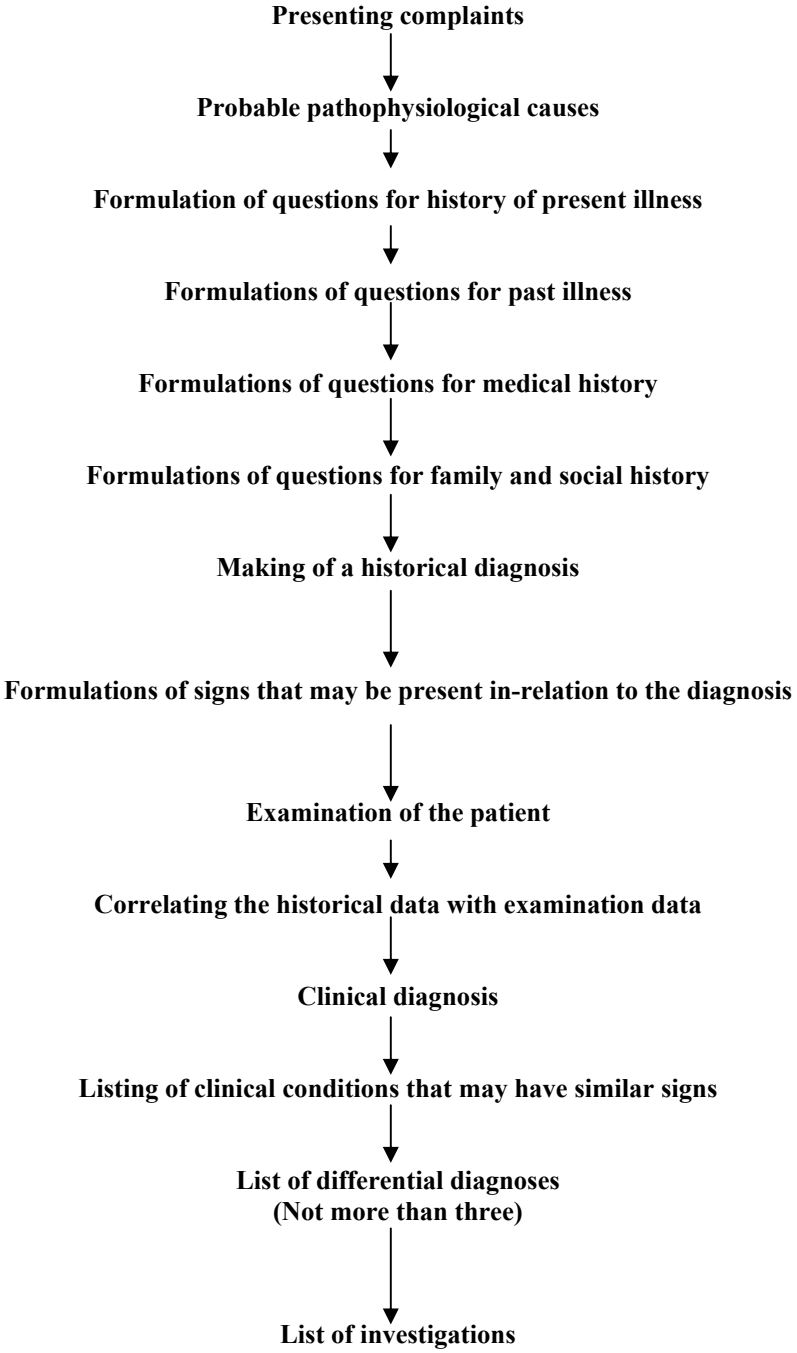
9. Ask student to present their work and summarize at the end.

10. Allot the cases to the group. Ask them to take history and perform physical examination based on the group work.

11. Ask student to present their findings and to suggest their diagnosis. Ask student to list the investigation and to prioritize them.

12. Supply them the results of the investigations performed and summarize each case.

Steps in making a diagnosis and identifying the treatment



Bedside clinical paediatric teaching:

1. Introduce the emergency triage (a process of quick assessment for screening).

   If any of the following complaints or signs are present do not proceed to take the detailed history but provide emergency care and stabilize the patient.

   General condition of the child: convulsion, unconsciousness, drowsy or lethargic, continually irritable or restless and cyanosis.
   Respiration: grunting, head nodding, respiratory distress.
   Circulation: features of shock.
   Temperature: hyperpyrexia.

2. If not in emergency continue to take the history. History taking starts from the identification points (name, age, sex etc). For a child with the presenting complaint of acute onset of cough or difficulty in breathing emphasize on:
   a. In history: age of the child, place of residence, parental occupation, who cares the child, cough (numbers of days present, paroxysms with whoops or vomiting present), wheeze (previous episodes, response to bronchodilators), seasonal occurrence, exposure to someone with TB or chronic cough in the family, risk factors (smoking parents, domestic smoke pollution, persons sleeping in the same room, cooking in the same room), immunizations history, history of choking or sudden onset of symptoms and known HIV infections.
   b. In general examination: respiratory rate, cyanosis, head nodding, nasal flaring, severe pallor, oedema, wheeze, and stridor.
   c. In the examination of chest: chest indrawing, hyper expanded chest, prolonged expiration, prolonged inspiration, apex beat displaced/ trachea shifted from the midline, percussion signs of pleural effusion (stony dullness) or pneumothorax (hyper-resonance).
   d. In auscultation: ronchi, coarse crepitations, bronchial breath sounds and gallop rhythm.
   e. Abdominal examination: palpable enlarged liver.

Differential diagnosis:
1. Pneumonia. 2. Bronchiolitis. 3. Asthma. 4. Severe anaemia. 5. Cardiac failure. 5. Tuberculosis. 6. Pertussis. 7. Foreign body. 8. Viral croup. 9. Bacterial tracheitis and acute epiglottitis. 10. Empyema. 11. Pneumothorax. 12. Congenital heart disease. 13. Acute naso-pharyngitis. 14. Post nasal drip. 15. Gastro-oesophageal reflux.

Morning Bedside Clinical Class

Wednesday, May 05, 1999

1. Selection of patients in the morning at 8.30 AM, selected cases were: right pleural effusion, PUO, right upper lobe consolidation, pneumonia.
2. Student's notebooks were checked. Purpose of writing history was discussed. Most of the cases were very short.
3. Objective of the morning session was: to observe whether after passing the half mile stones if they could finish history taking, examination within one hour. Patients were allotted.
4. Two cases were discussed; pleural effusion and PUO. Signs of pleural effusion were shown. Bronchial breath sound listened.
5. Different type of fluid were shown chylous, straw coulur, pyogenic and serous. These fluid were prepared by diluting milk, diluting savlon, clean water and diluting tincture benzoin.
6. Day's activity was discussed.

Wednesday, June 02, 1999

1. Four cases of abdominal pain (tuberculous) were selected. They had different presentations: intestinal, ascitic, omental and iliocaecal.
2. Students were divided in four groups. They are allotted these four cases. They were asked to take history and exam their respective cases in one hour.
3. Students presented their cases to the group. Individual students were asked to write four causes that can have such presentations..
4. Teacher led the discussion by asking individual student to highlight the information that was sufficient to make the specific diagnosis. In case of unusual diagnosis teacher asked the students to make questions that should be asked to the parent, which may be positive in the history.
5. The teacher confirmed examination findings and missed findings were shown.
6. Day's activities were summarized. Four different presentation of abdominal tuberculosis shown. A. Intestinal: stricture, alternate constipation and diarrhoea, fever with weight loss, distention of abdomen, blood in the stool, difference between the ulcer of tuberculosis and typhoid, why stricture occurs, why a child with intestinal obstruction becomes dehydrated inspite of not having diarrhoea. B. Omental tuberculosis: rolled on omentum as a mass in the upper abdomen. C. Ascitic: causes of ascitis, difference in the presentation of cirrhosis, kwashiorkor, nephrotic syndrome, inferior venacaval obstruction. D. Ileocaecal tuberculosis: mantoux 13-mm +ve, history of contact, distended intestine in one side only, duplication of the bowel. Result of ascitic tap: increased lymphocytes..

Wednesday

1. Four cases of meningitis with following neurological complications were selected: hydrocephalus, subdural effusion, facial palsy and right lower limb paresis.
2. Brief discussion was done on the pathophysiology of meningitis.
3. Students were divided in four groups and were asked to:
    - formulate questions for the parents to find out the symptoms.
    - Formulate questions for the history of present and past illnesses.
    - Formulate other questions that are relevant for the other medical history.
4. Students were asked to present their work and brief discussion was done.
5. Students were asked to list the signs that may be seen in a child with meningitis including the complications.
6. These signs were discussed briefly relating to skills of eliciting the signs: specially neck stiffness, kernig.s sign, drowsy, bulging fontanalle and focal neurological signs.
7. Students were asked to list investigations for meningitis.

8. Students were allotted cases in-group of two and they were asked to take history and do clinical examination.
9. Students presented the cases and discussion was done.
10. Students were shown the following investigation:
    CT Scan, CSF findings.

Wednesday 22. 04.2059

1. Two cases of rheumatoid arthritis were selected.
2. Students were asked to formulate questions for history taking in a child aged 5-13 years with joint pain
3. Students were asked to writes signs which are important in a child with joint pain.
4. Brief discussion was held to list some disease causing joint pain.
5. Students were divided in two groups and two patients were allotted.
6. Both groups presented the history and findings.
7. Brief discussion was held relating to the presentation, signs and investigations. Both the cases were rheumatoid arthritis.
8. Students were asked to read the causes of arthritis and juvenile rheumatoid arthritis.

2059.06.16

Objective

At the end of session students will be able to:

a. list the entry questions for a child with cough or difficulty in breathing.
b. List the threading questions for a child with cough or difficulty in breathing.
c. Examine the child to elicit the important signs in general survey
d. Examine the child to elicit the important clinical signs of pneumonia and effusion.
e. List the investigations to confirm the diagnosis of pneumonia or effusion.

Methods:

a. introduce the objectives of the session.
b. Review the concept of entry and threading questions.
c. List some important key signs for pneumonia and effusion.
d. Demonstrate a patient for examination of a child with pneumonia
e. Allot the patient in groups of two and ask them to take history and examination
f. Review all the cases in group
g. Review the investigations.
h. Summarize the days activity.
i. Ask students to read chapter on history and examination for a patient with diarrhea for the next class.

Hepatosplenomegaly

Examples of questions for history of present illness:

How old is the child?	**Congenital infections, storage disorders.**
Where is the place of residence?	**Malaria, kalazar,**
Does the child have fever?	
For how long?	**Malaria, kalazar, typhoid, TB,**
Does it come every day?	**Infectious mononucleosis and**
Is fever associated with rash, runny eyes or red eye?	**other viral infections, leptospi roicterohaemorrhagica. Infective hepatitis**
Is it associated with purpura?	**Malignant diseases, sepsis.**
Does the child have jaundice?	**Infective hepatitis, Hodgkin's.**
Delayed developmental mile stones of life?	**Lipid storage disorders.**
Is the child plump?	**Glycogen storage disorders.**
Is the child pale?	**Thalassaemia, malignancies**
Does the child have joint pain?	**Rheumatoid arthritis, other collagen diseases.**
Does the child have difficulty in breathing?	**CCF, visceral larva migrans**

Examples of questions for past medical history:

Did mother had illnesses during pregnancy?	**Congenital infections**
Does the child have umbilical sepsis?	**Portal hypertension**
Any history of rheumatic fever?	**Cardiac failure, subacute bacterial infections**
Did the child have dysentery?	**Amoebic liver.**
Is the child vaccinated with BCG?	**Miliary tuberculosis.**
Did the child have jaundice?	**Cirrhosis.thalassaemia**
Did the child vomited blood?	**Cirrhosis.**
Is there consanguinity of marriage?	**Thalassaemia, metabolic disorders.**

Examples of examination findings:

Propped-up position	**Cardiac failure, portal hypertension (huge ascitis)**
Thin built	**Tuberculosis, malignancy**
Plump	**Glycogen storage disorder.**
Pallor	**Malignancy, thalassaemia**
Cyanosis	**CCF**
Jaundice	**Infective hepatitis, cirrhosis, Thalasaemia.**
Oedema	**CCF, cirrhosis, malignancy**
Clubbing	**Cirrhosis, SBE, tuberculosis**
Purpuric rashes	**Malignancies, cirrhosis. congenital infections.**
Lymphadenopathy	**Malignancy, kalazar.**

High fever	**Typhoid, malaria, kalazar, malignancy, SBE, infective Hepatitis. Infectious mononucleosis**
Maculo-papular rash	**viral infections, typhoid,**
Joint swelling, bony tenderness	**Malignancy, collagen disease**
Eyes: congestion	**Viral infections, infectious mononucleosis, leptospirosis**
Cherry red spots	**Lipid storage disorders**
Keysherfisher ring	**Wilson's disease**
Mouth	
Bleeding gum	**Malignancy, kalazar**
Chest:	
Murmur	**CCF, Glycogen storage, SBE rheumatic**
Basal creps	**CCF, visceral larva migrants**
Effusions	**CCF, visceral larva migrans, collagen.**
Abdomen:	
Tender liver	**viral hepatitis, amoebic, bacterial, CCF**
Non tender	**malignancy, thalassaemia storage disorders, kalazar, malaria**
Ascitis	**Cirrhosis, tubercular, visceral larva migrans, malignancy.**
Prominent abdominal veins	**cirrhosis.**

Abdominal pain:

Acute onset:	**Intestinal / ureteric colic Worms, food allergy, diabetic ketoacidosis, obstructions, calculus, visceral infarctions**
Chronic onset	**Organomegaly, ulcers, constipation, functional**

Associated symptoms:

Rash	**urticaria, HS purpura, collagen diseases, leukaemias, HUS**
Fever	**shigellosis, hepatitis, UTI, basal pneumonia, tuberculosisis, typhoid, pyelonephritis**
Diarrhoea	**enteritis,**
Vomiting	**gastroenteritis, hepatitis, colic**
Difficulty breathing, cough	**cardiac failure, pneumonia, asthma**
Constipation	**Chronic functional, intestinal tuberculosis, hirshprung, hypothyroidism, intussusception, volvulus.**
Jaundice	**infective hepatitis, sickle cell anaemia, cholangitis,**
Haematemesis	**PUS, portal hypertension, Malignancy**
Distension of abdomen	**intestinal obstruction, ascitis, Visceromegaly,**
Scar marks	**Trauma, past operations- bands, faith healers applications of heat for colic.**
Dark coloured urine	**trauma, porphyria, haemoglobinuria,**
Severe dehydration	**renal vein thrombosis.**

Bedside Clinical Discussion

Total time: Two hours

Name of the student **Roll No.** **Batch:**

Your task

1. **Take history.**
2. **Perform clinical examination.**
3. **List the investigation**
4. **Fill up the following space**

Diagnosis:

Differential Diagnoses:

Points in the history that favors your diagnosis:

Points that support your diagnosis in clinical examination:

Investigations that are available which support your diagnosis: