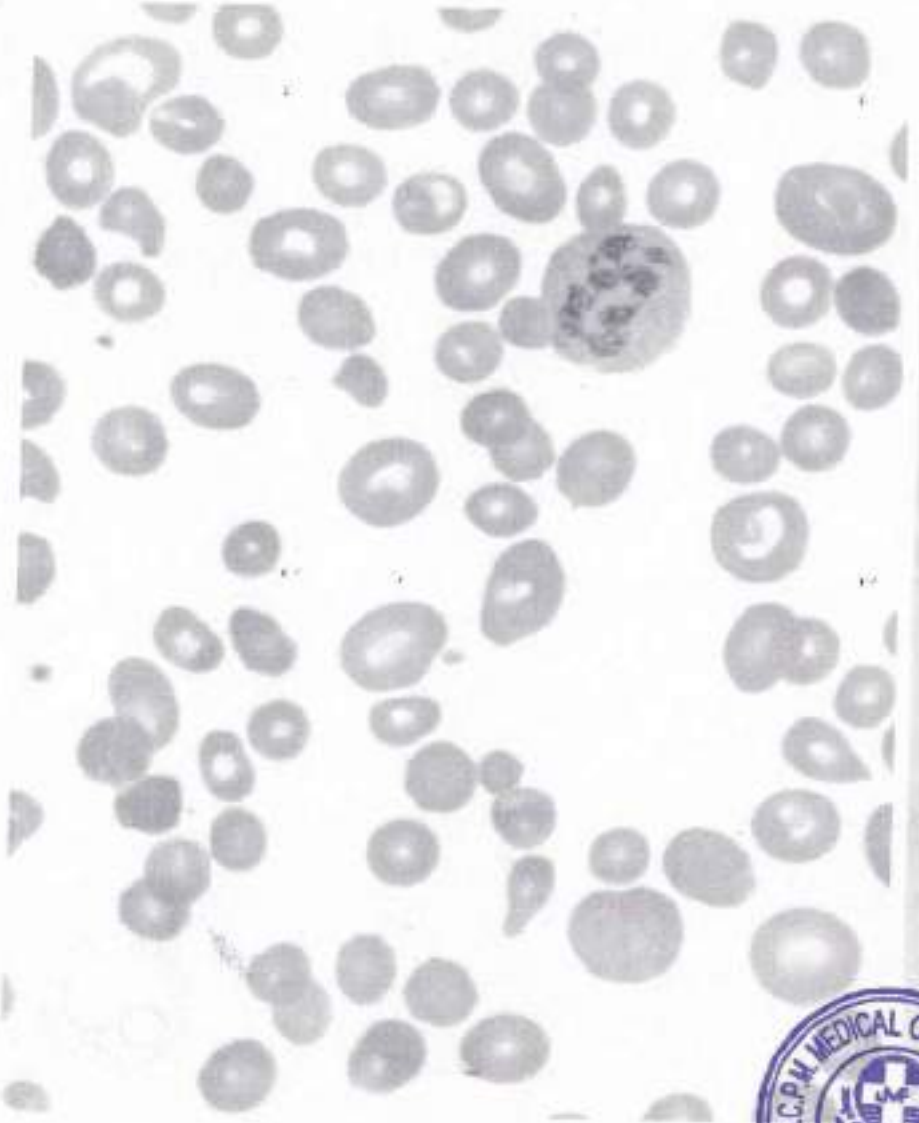
2.3.5

Appropriate documentary evidence

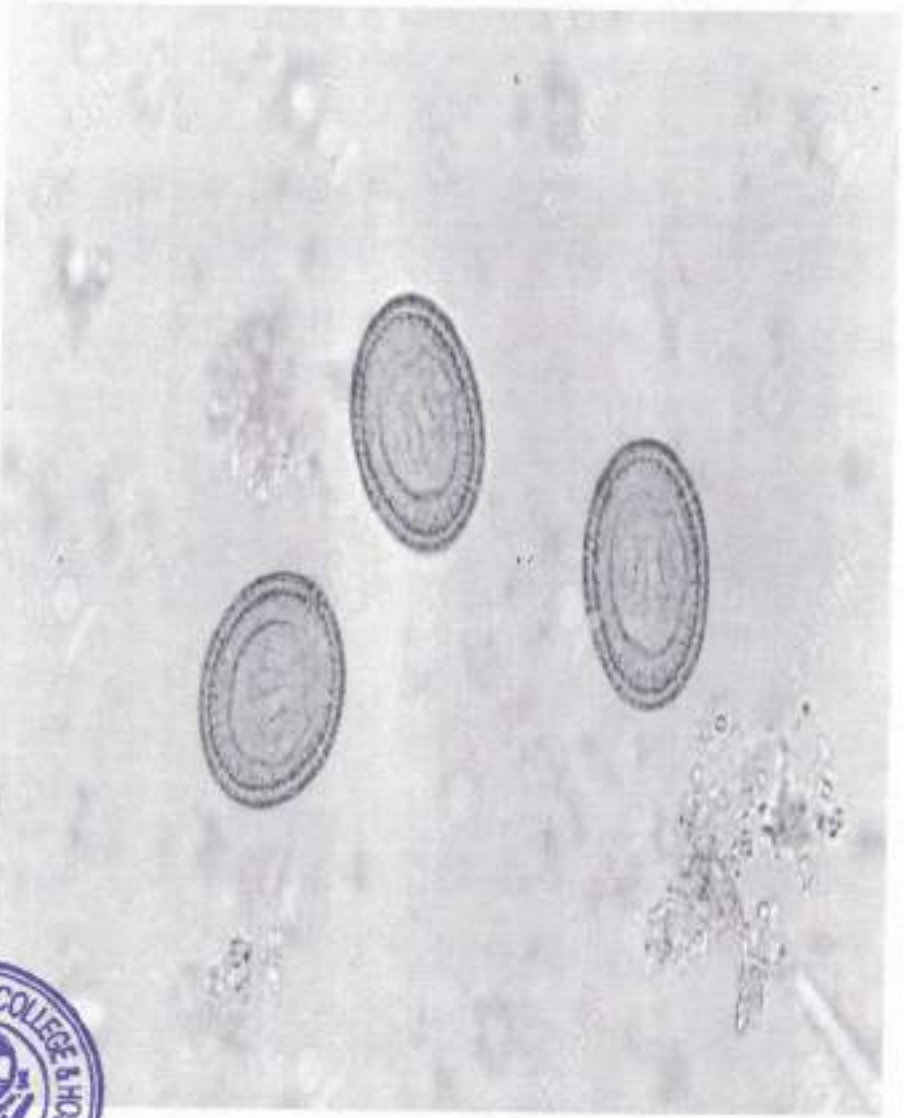
CASE No. 1

- A 38 yrs old female came with c/o malaise, fatigue, breathlessness. Immediate past H/o 2 fainting episodes.Hb-9.2gm/dl, HCT- 27.9 %, MCV- 132 fL. RDW- 25.8 %.

PBS



Stool Examination



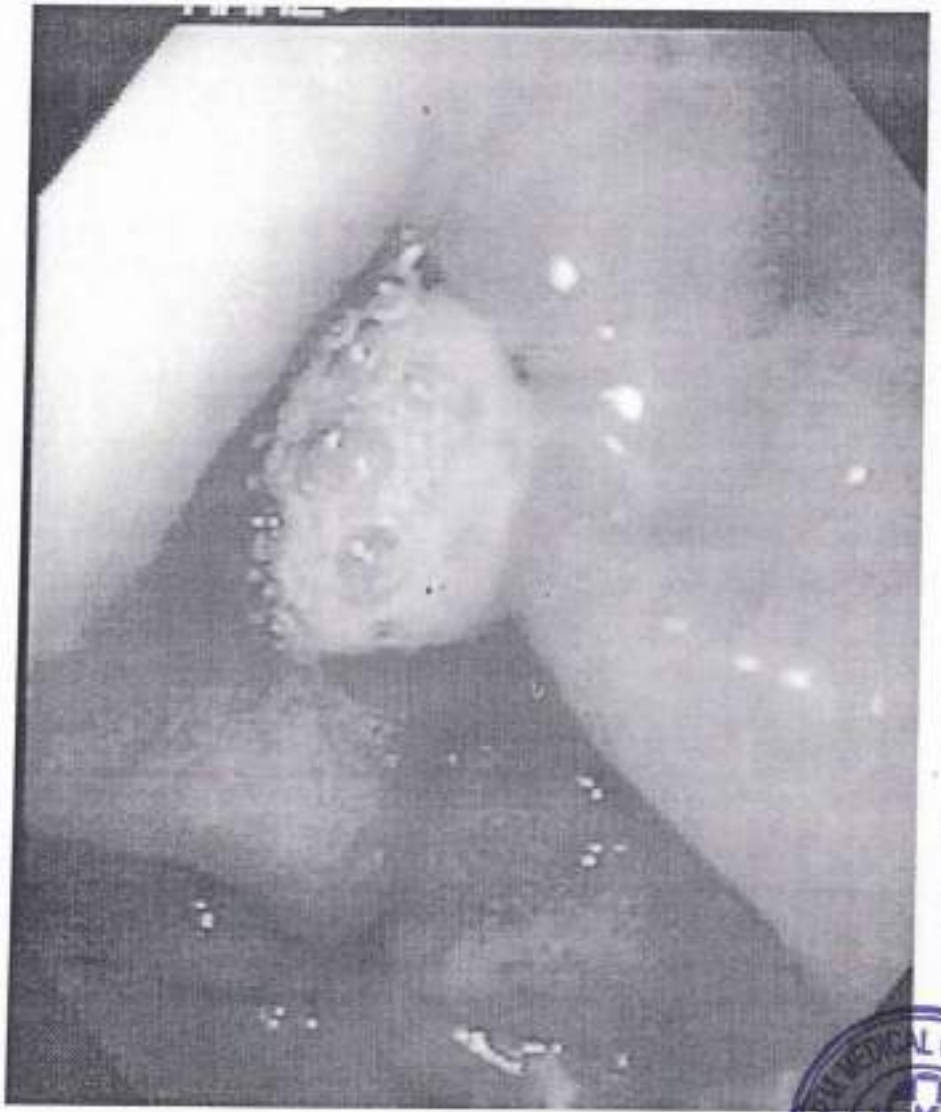
QUESTIONS

1) **Enumerate differential diagnosis.**
2) **What are the lab findings in favour of your diagnosis?**
3) **What will be the treatment plan in this patient?**

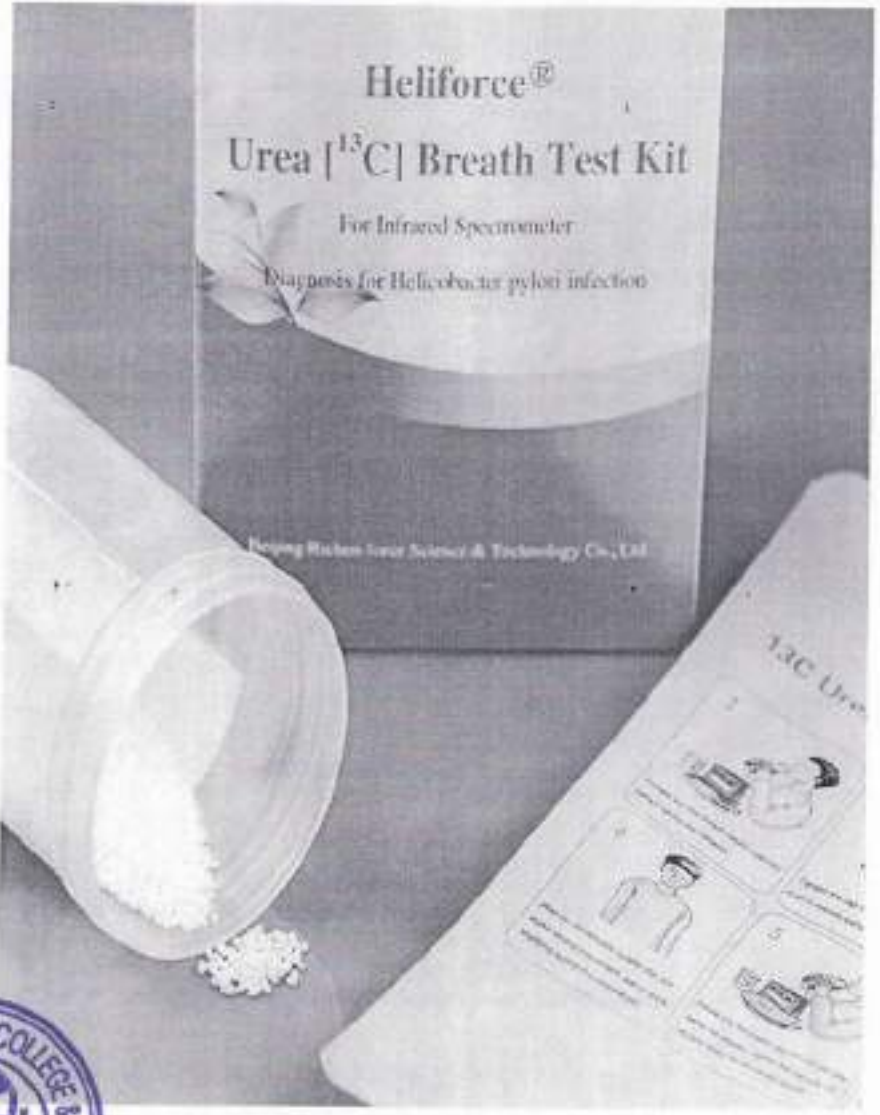
CASE NO.2

- A 40 yrs old corporate manager c/o epigastric pain, nausea since 2 months. Intensity of pain increases at night. He was advised Urea Breath Test, which has been reported as 'Positive'. Gastroscopy revealed an antral ulcer. Biopsy was done.

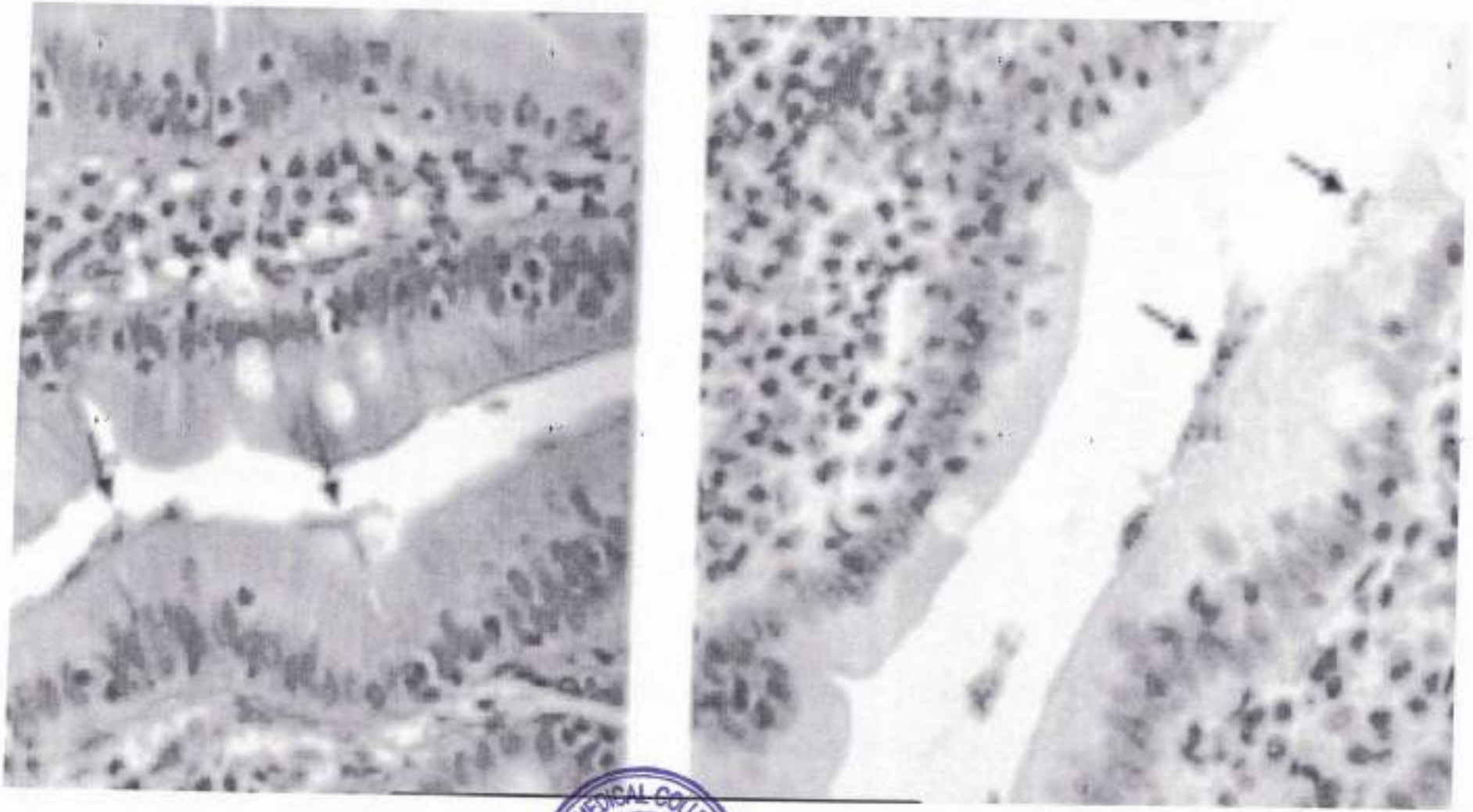
Gastroscopy



Urea Breath Test



Biopsy interpretation



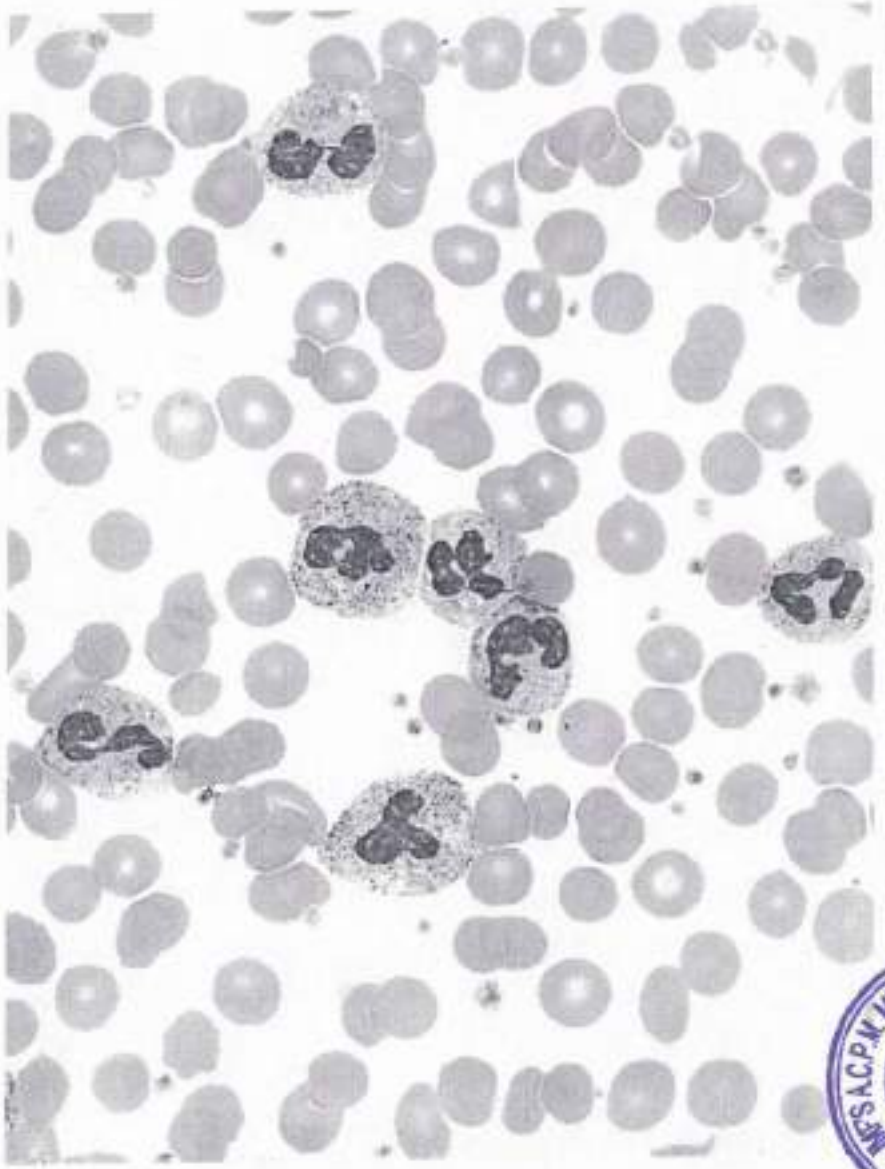
Questions

1) **What is the probable diagnosis?**
2) **What should be the pathologic findings confirming the diagnosis?**
3) **How will you treat this patient?**

CASE NO. 4

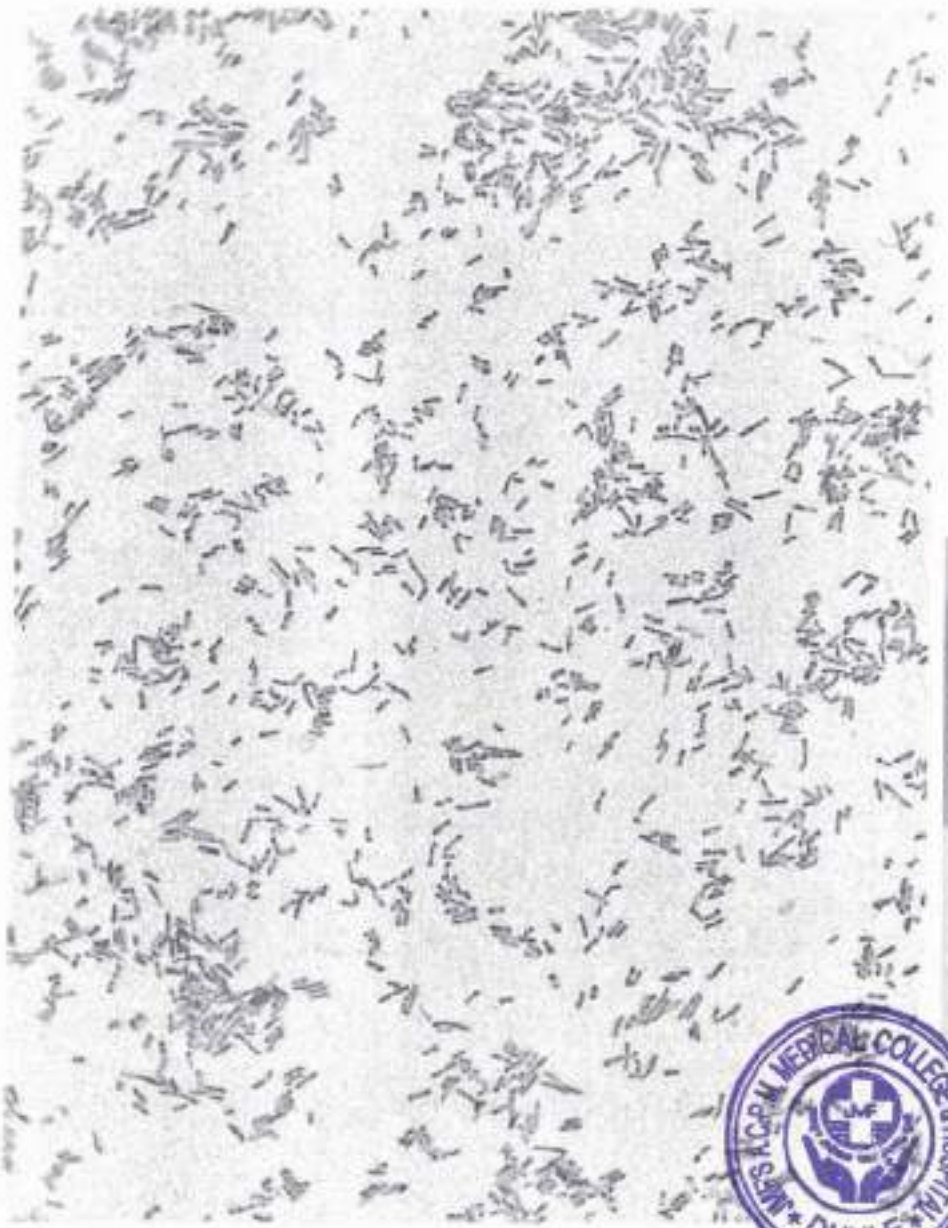
- A 56 yrs old male had an episode of severe abdominal pain and fever 10 days before admission. He self medicated with a cathartic which made him feel worse. He started having cramps in calf muscles. During hospitalisation, icterus was noted. Patient vomited periodically and before admission had 6 bouts of bulky diarrhoea with blood streaks.
- Clinical history- Temp. 43°C, Tachycardia, tachypnoea, Normal BP, Marked icterus. CVS, RS- Within Normal Limits. Abdominal Distension noted with moderate diffuse tenderness.
- Lab investigations- Marked neutrophilic leucocytosis, Conjugated hyperbilirubinemia, significant prolonged PT.

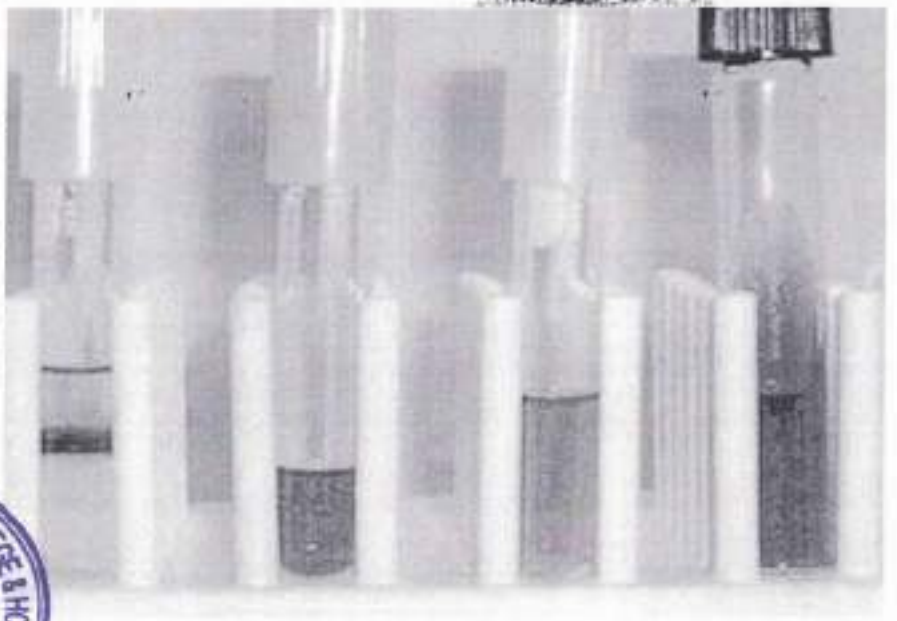
PBS



Urine

Blood Culture



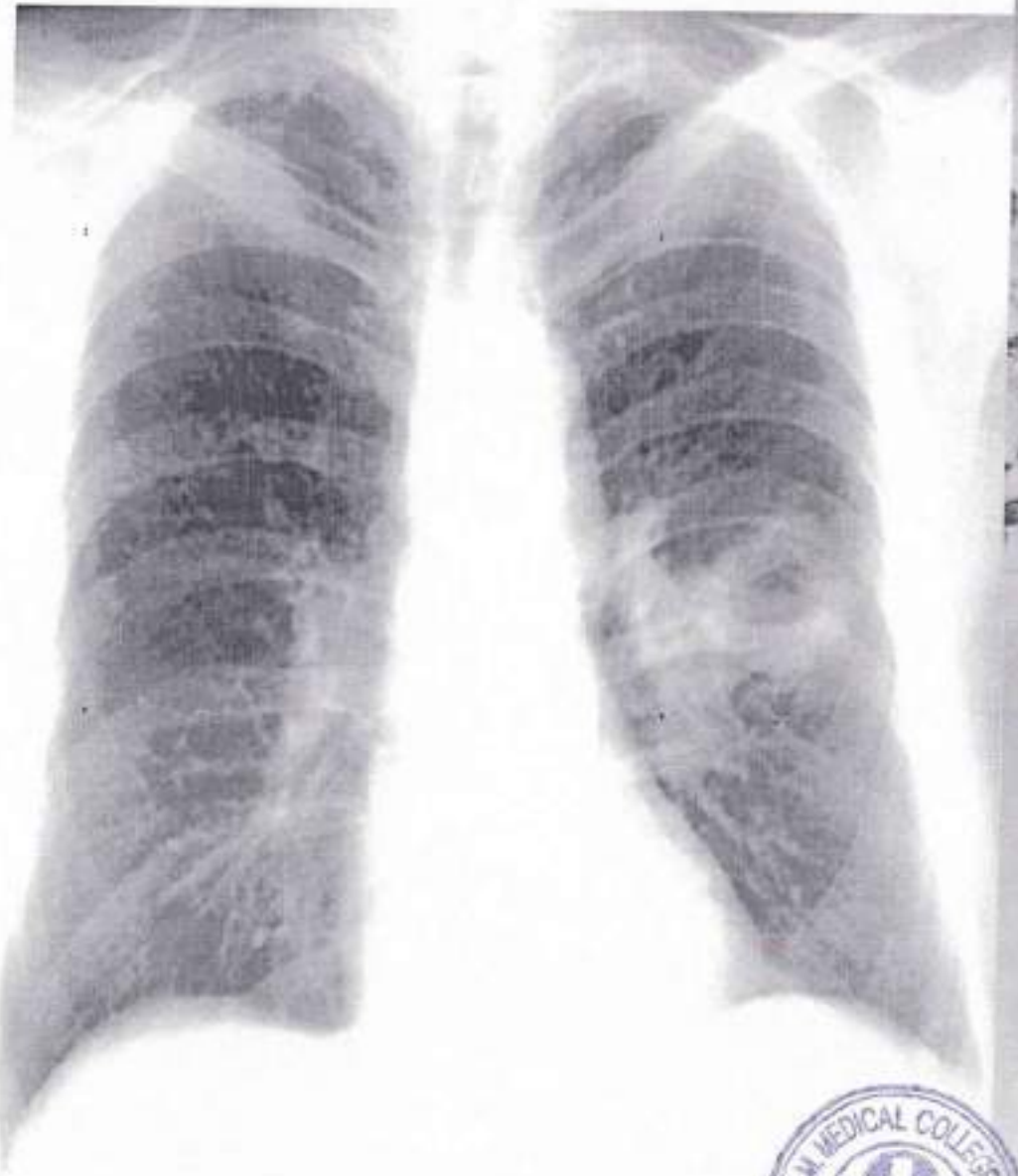


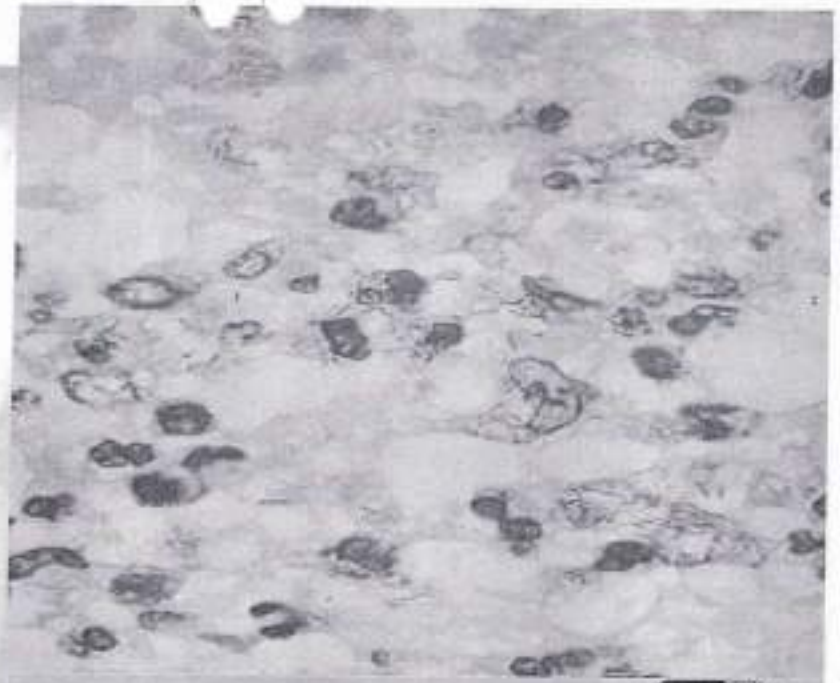
QUESTIONS

1) **What is the probable clinical diagnosis?**
2) **What is the interpretation of lab tests?**
2) **Discuss your plan of treatment and management.**

CASE NO. 5

- **A cachectic 34 yrs old male presented with progressive shortness of breath and cough with expectoration since 1 month. There was increasing fatigue, breathlessness on exertion and mild chest discomfort. C/o periodically night sweats with rise in temperature. He noted loss of weight since last 3 months. The chest X-Ray and Lab findings are submitted for interpretation.**



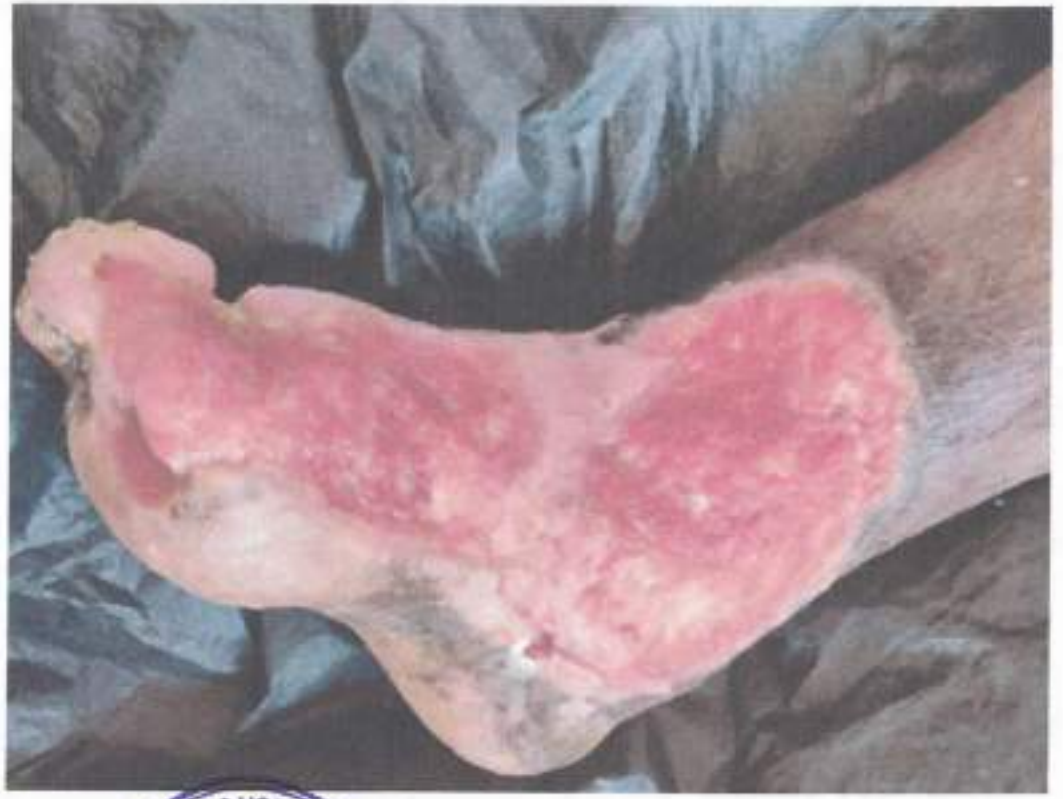


Questions

1) **What is the clinical diagnosis?**
2) **What is the interpretation of investigations done?**
3) **Which other additional investigations should be done to confirm diagnosis?**
4) **What is the treatment plan and difficulties in managing this patient?**

Long case :2

A 60 year old gentleman comes with ulcer over rt foot since 6 months. Patient is a known diabetic since 15 years on medications.



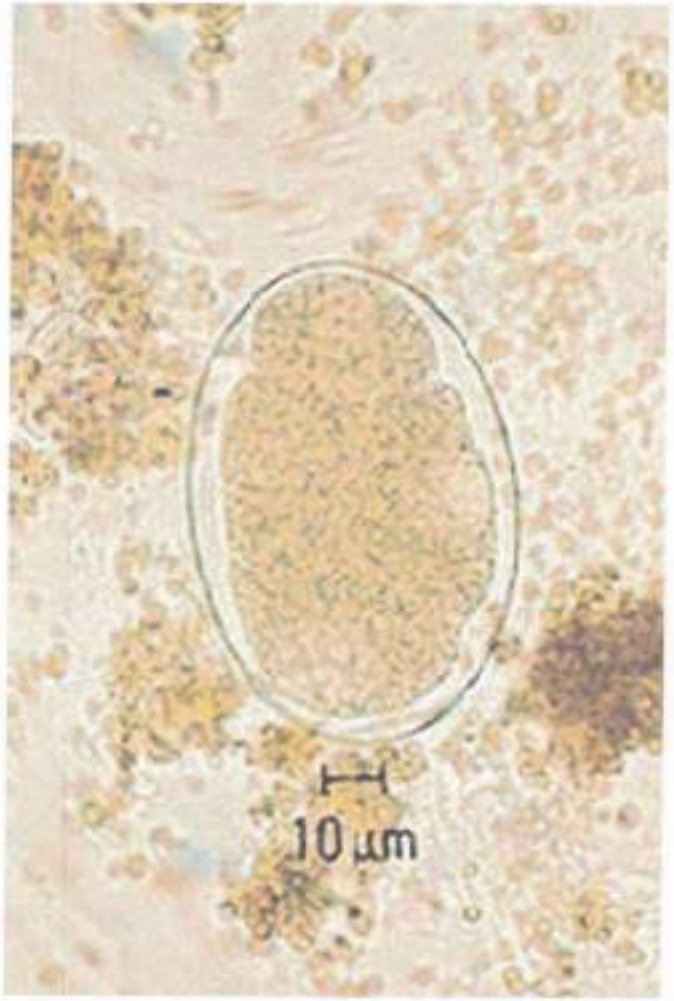
What other history will you ask for ?

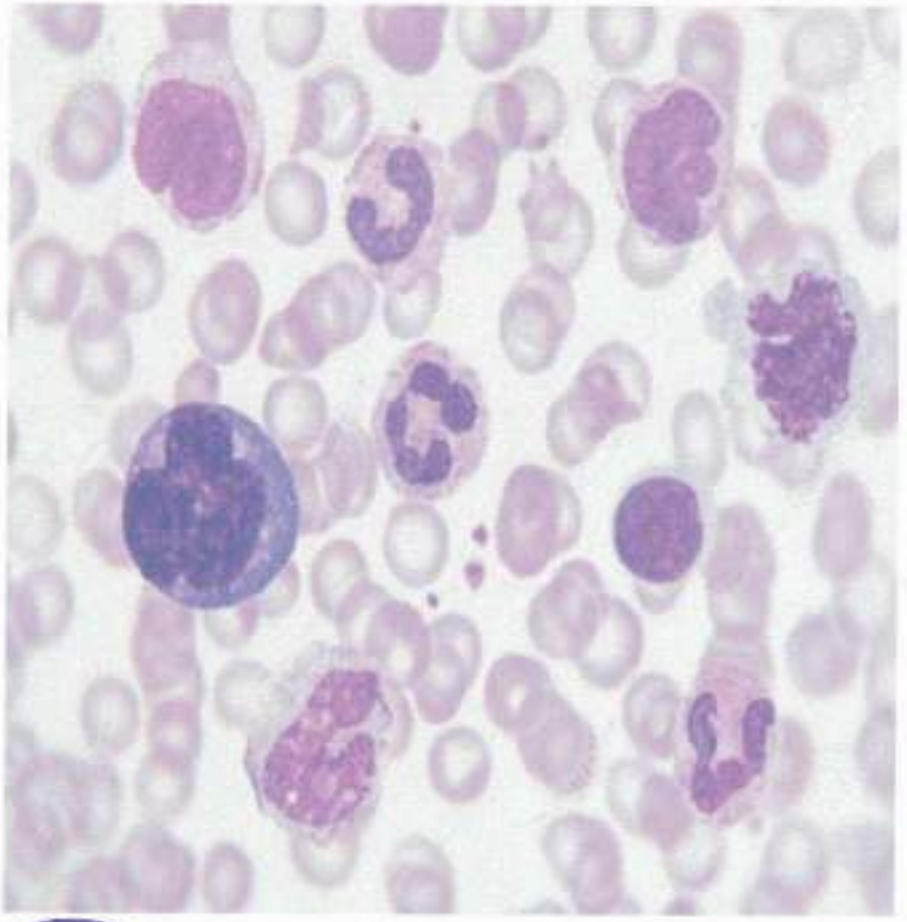
What general examination finding you look for ?

Describe how will you proceed with local examination ?

What are your differential diagnosis ?

How will you proceed ?





STOOL EXAMINATION

PBS

(5) Dept. of Physiology

Early Clinical Exposure-IV

Mrs. Maria is a 32-year-old white woman, working as assistant operation manager in manufacturing cotton unit, presents with symptoms of recurrent abdominal pain and loose stools. She states that she has experienced these symptoms since adolescence, with periods of improvement and worsening over the years. She notes that her symptoms were most pronounced when she was in college. Over the past year, her symptoms have been occurring more frequently and with greater severity. Bloating and distention also have increasingly bothered her over the past 6 months. The bloating seems to worsen with food intake, while the distention progresses throughout the day. When questioned about abdominal pain, she describes it as 7 (on a scale of 10), with acute worsening immediately prior to defecation and significant improvement after defecation. She has loose stools approximately one third of the time and often will have 2-3 bowel movements per day. She jogs about a kilometer once in week, tries to eat 4-6 servings of fruits and vegetables daily, and taking a daily multivitamin, for many years. She feels that she is loosing weight but her vital signs seems to be within normal limits: height 5'6", weight 46 kg, blood pressure 108/64 mm Hg, pulse 60 beats per minute, and respiratory rate 12 breaths per minute. On physical examination, she is a well-developed, well-nourished woman but exhibit some employment distress. Her physical examination is notable for mild tenderness to palpation in the left lower quadrant, but there is no rebound tenderness, guarding, or other peritoneal signs. The remainder of the physical examination is unremarkable.

About 5 years back, she presented to the emergency room complaining that she had vomited up blood at home. She had been suffering with sharp epigastric pain, especially in the morning, for one week before the vomiting began. The pain was accompanied by mild nausea and was relieved by food or antacids. She had a long history of peptic ulcer disease and was initially diagnosed with duodenal ulcer at age of 16. Despite at least six discrete episodes of ulcer documented by x-ray or endoscopy, she had never undergone surgery. The physician had worked up for Zollinger-Ellison syndrome, which was negative. Her endoscopy findings revealed scarring of the pylorus with a 2 cm ulcer in the first portion of the duodenum. Biopsy of the ulcer revealed curved bacilli with Warthin–Starry silver staining and a positive urease test. She was started on an H_2 blocker and the pain rapidly subsided.

1. Describe the clinical features of irritable bowl syndrome and duodenal ulcer.
2. Compare and contrast the irritable bowl syndrome and inflammatory bowl disease.
3. Explain the gut-brain axis [GBA]. Explain the role GBA in GI disorder
4. Explain the feature of Gastric Mucosal barrier and its function.
5. Explain the neuronal mechanism of Gastro-iliac reflex and enterogastric reflex.
6. Explain the mechanism of nausea and vomiting.
7. Describe the pathophysiology of Zollinger-Ellison syndrome and its management.
8. What phenotypic characteristics of *H. pylori* are thought to account for its virulence? Which of them appear to be most important?
9. What further treatment might be helpful?What long-term benefits could she expect if she were to receive the additional treatment?
10. Describe mechanism of defecation reflex.

Professor & Head,
Department of Physiology
A.C.P.M. Medical College, Dhule

MIES A.C.P.M. MEDICAL COLLEGE & HOSPITAL * DHULE *

Before Induction of Anaesthesia

(with at least nurse & anaesthetic)

1) Has the patient confirmed his/her identity, site, procedure and consent)

Yes

2) Is the site marked ?

Yes/Not applicable

3) Is the anaesthesia machine and medication check complete?

Yes

4) Is the pulse oximeter on the patient and functioning ?

Yes

5) Does the patient have a known allergy?

Yes/No

6)Difficult airway or aspiration risk?

Yes, and two IV's /Central access and fluids planned

No

Name and Signature of Anaesthetic with date and time:

Before skin incision

(With nurse ,anaesthetic and surgeon)

Confirm all team members have introduced themselves by name and role

Confirm the patient's name, procedure, and where the incision will be made

1)Has antibiotic prophylaxis been given within the last 60 minutes ?

Yes

Not applicable

2)Anticipated critical events

To Surgeon :

What are critical on non-routine steps ?

How long will the case take ?

What is the anticipated blood loss?

To anaesthetic:

Are there any patient specific concern?

To Nursing team :

Has Sterility (including indicator result) been confirmed ?

Are there equipment issues or any concerns?

3) Is essential imaging displayed ?

Yes /Not applicable

Name & Signature of Surgeon with Date & Time:

Algorithm1

Before patient leaves operating room

(With nurse, anaesthetic and surgeon)

Nurse Verbally Confirms:

The name of the procedure

Completion of the instrument, sponge, needle counts

Specimen labelling (read specimen labels aloud, including patient name)

Whether there are any equipment problems to be addressed

To surgeon, anaesthetic and nurse:

What are the key concerns for recovery and management of this patient?

Name & signature of Nurse with Date&Time

MES's A.C.P.M. MEDICAL COLLEGE & HOSPITAL DHULE

PROF.Dr.N.B.GOYAL

DEPT.OF ORTHOPAEDICS

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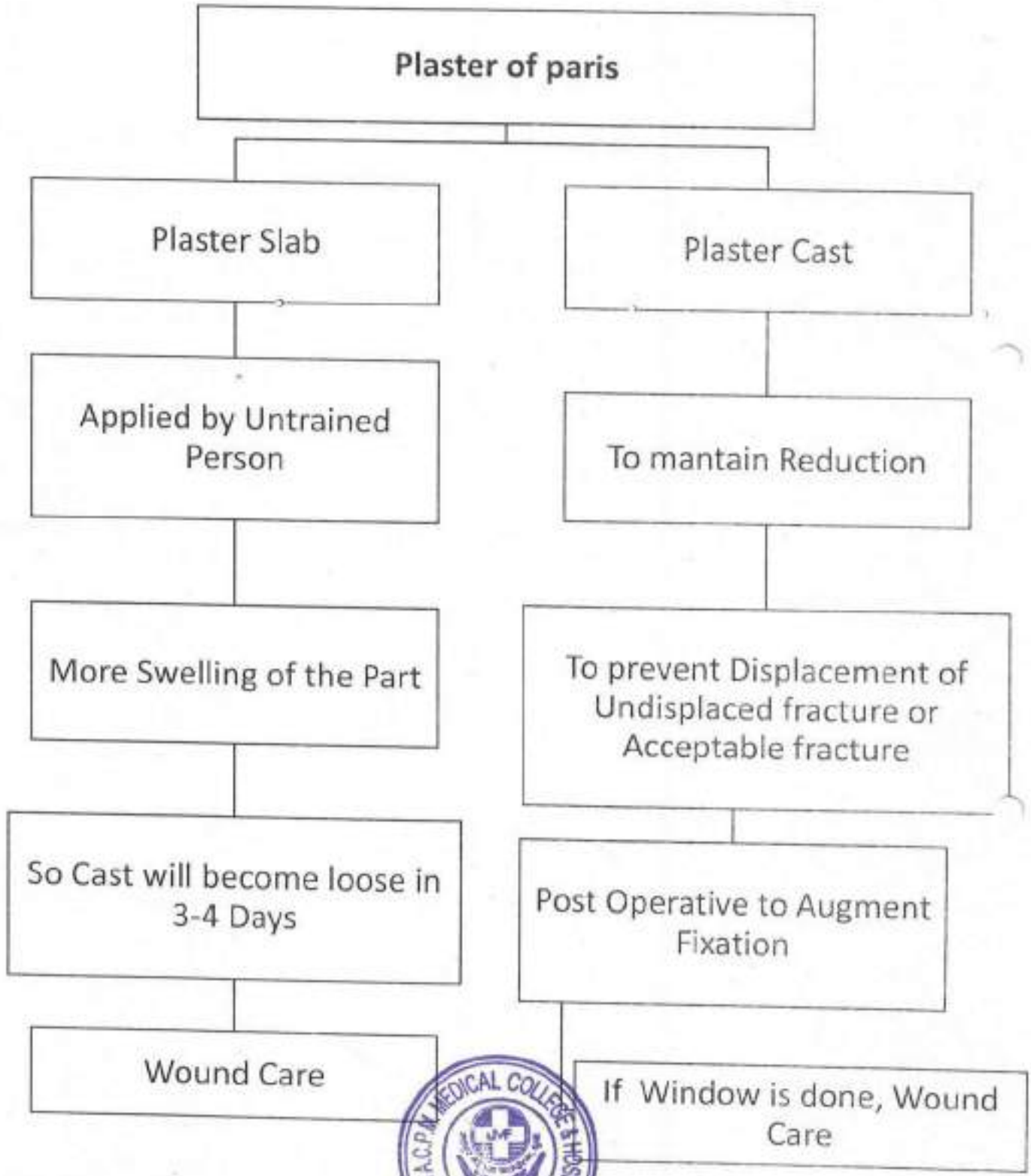
Ref No.

Date :



PROF.Dr.N.B.GOYAL
DEPT.OF ORTHOPAEDICS

Algorithms

Algorithms

In all procedures, for patients we do following..

- isolation of patient till covid status
- Fitness of patient for that procedure.
- For minor procedure, Only Diabetes check up

Counselling of the patient about Pro/cons of procedure and Possible results of procedure

- Autoclave materials- Implants, Instruments, Drapes etc.
- Sample if required for pathological examination
- Painting and draping of part
- Anaesthesia GA / SPINAL/IV REGIONAL/ LOCAL
  - Under C Arm Monitoring
    - Surgery Done, Implant used, Body part disposed as per BMW protocols
      - Post OP. Care

PROF.Dr.N.B.GOYAL
DEPT.OF ORTHOPAEDICS

Bone Marrow Aspiration and Biopsy.

Presentor –Bhargavi Gawhankar
Roll no- 29.

INTRODUCTION

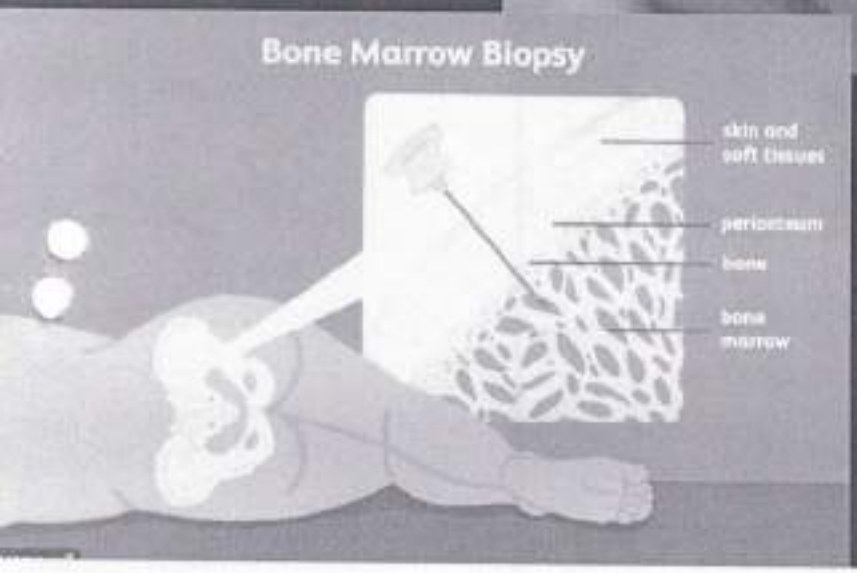
Bone marrow aspiration is the process of removing the liquid part of the bone marrow by suction through a needle to diagnose and follow the progress of various conditions like anemia, cancer and also, for bone marrow transplant.

Bone marrow biopsy takes out a larger piece of solid bone marrow by coring out the sample with a saw (or trephine) that cuts a small amount of bone tissue as well with it. This provides a more complete examination of the bone marrow.

INDICATIONS.

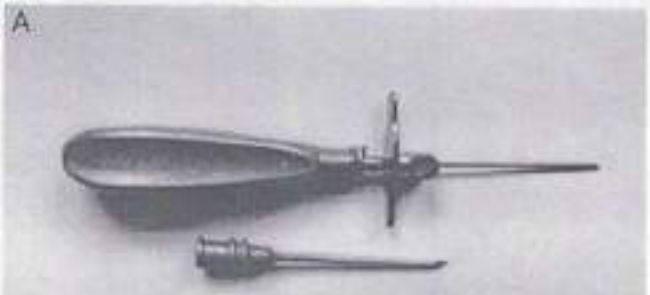
1. Anemia– Microcytic, macrocytic, normocytic, aplastic.
2. Non hodgkin's lymphoma, Hodgkin's lymphoma and metastatic carcinoma
3. Stromal changes like fibrosis, necrosis, gelatinous marrow transformation.
4. Hyoplastic myeloplastic syndrome
5. Hypoplastic leukemia
6. Hairy cell leukemia
7. Multiple myloma
8. Pyrexia
9. Amyloidosis
10. Metabolic bone disorders
11. Paraproteinemia.
12. Iron assessment.

SITES



INSTRUMENTS

A



Klima sternal needle

B

Salah bone marrow aspiration needle

C

Watherfield needle -iliac crest

D

Jamshidi needle for aspiration and biopsy

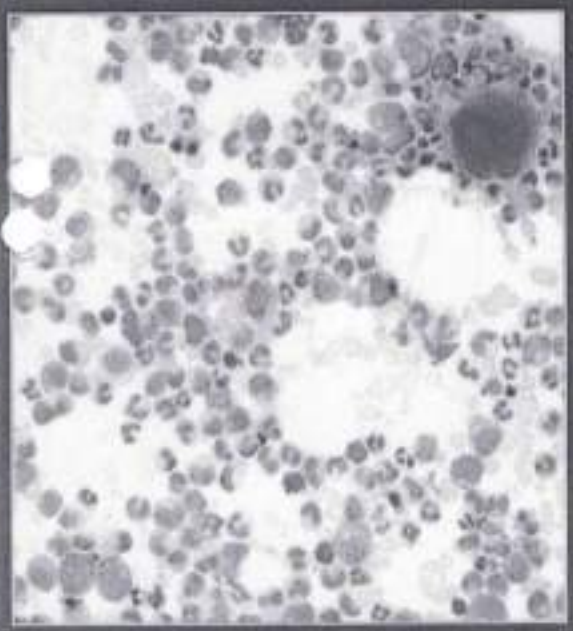
Aspiration VS Biopsy

- Aspiration gives better cytological details.
- Ideal for cytogenetics and molecular genetics.
- Dry tap in fibrosis.
- Less painful.
- Helpful in Iron deficiency anemia, megaloblastic anemia and acute leukemia.

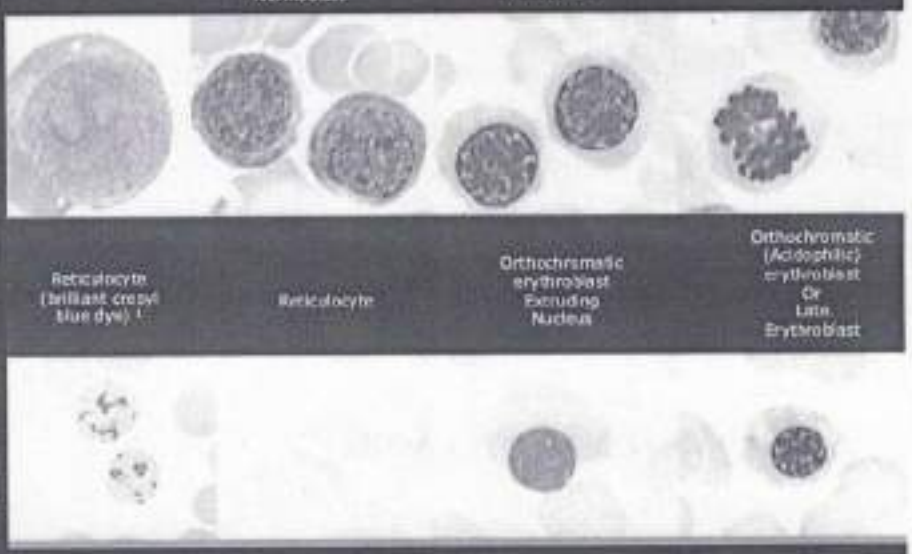
- Biopsy gives better topographical details, cellularity and infilteration.
- Can be used for both.
- Essential for diagnosis in dry tap.
- More painful
- Helpful for Aplastic anemia, lymphoma, metastatic carcinoma and neoplasms.

Report Interpretation.

1. Determine cellularity - identify megakaryocytes, their morphology and maturation stages and abnormalities.
2. Determine myloid : erythroid ratio.
3. Perform differential count for categories erythroid, myloid, lymphoid, plasma cell and others noting their morphological abnormalities.
4. Look for clumps of abnormal cells.
5. Identify macrophages.
6. Look for areas of bone marrow necrosis.
7. Assess the iron content.

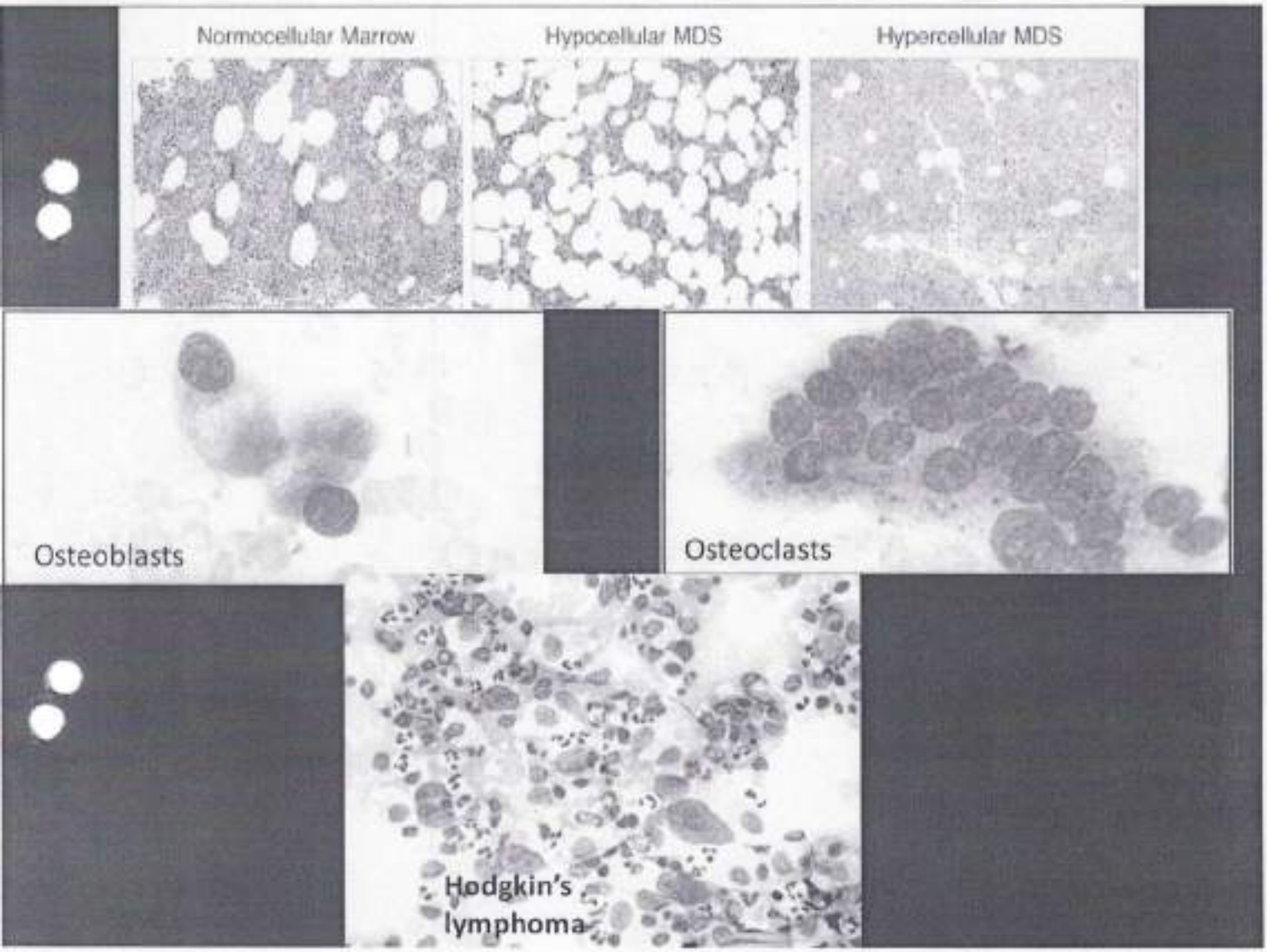


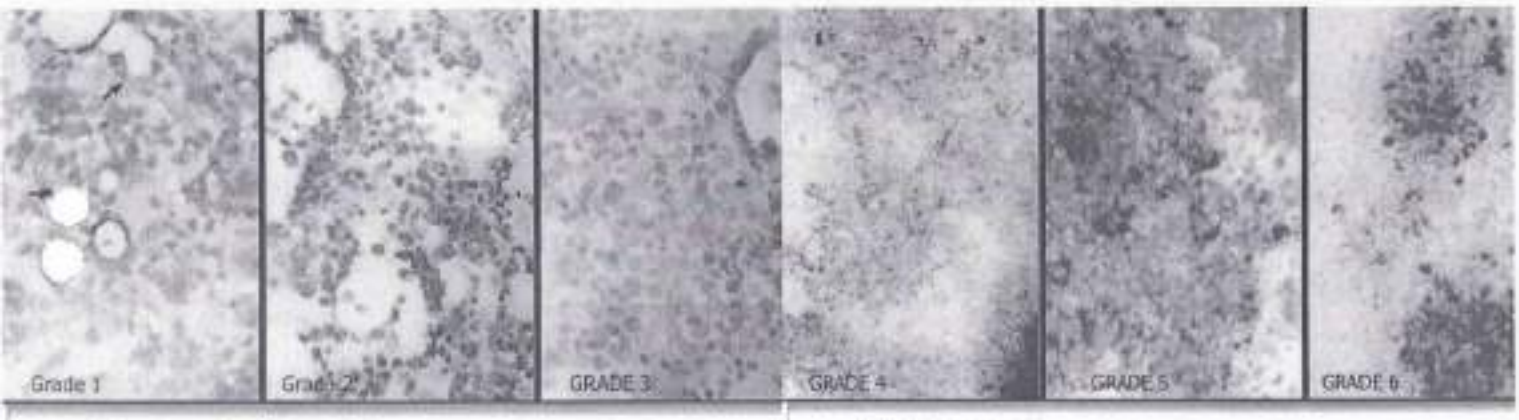
Myeloid hyperplasia with complete granulocytic maturation to segmented neutrophils.



STAGES OF RBC MATURATION.

RINGED SIDEROBLAST



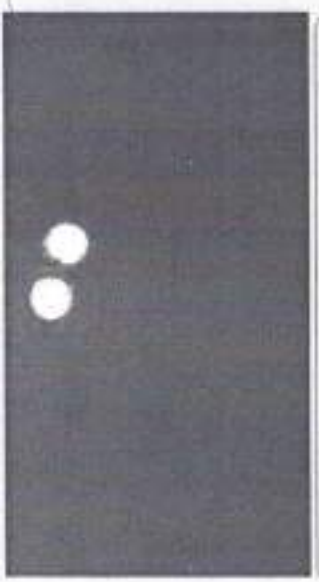


Grading for iron on bone marrow aspirate

1+ Small iron particles just visible in reticulum cells using an oil objective
2+ Small, sparse iron particles in reticulum cells, visible at lower power
3+ Numerous small particles in reticulum cells

Iron grading

4+ Larger particles with a tendency to aggregate into clumps
5+ Dense, large clumps
6+ Very large clumps and extracellular iron



- Osteocytes:
  Seen in bony lacunae.
- Osteoblasts:
  Seen lining the trabeculae.
- Osteoclasts:
  Seen in howship's lacunae

THANK YOU

Hamilton Anxiety Rating Scale (HAM-A)

Reference: **Hamilton M. The assessment of anxiety states by rating. Br J Med Psychol 1959; 32:50–55.**

Rating Clinician-rated

Administration time 10–15 minutes

Main purpose To assess the severity of symptoms of anxiety

Population Adults, adolescents and children

Commentary

The HAM-A was one of the first rating scales developed to measure the severity of anxiety symptoms, and is still widely used today in both clinical and research settings. The scale consists of 14 items, each defined by a series of symptoms, and measures both psychic anxiety (mental agitation and psychological distress) and somatic anxiety (physical complaints related to anxiety). Although the HAM-A remains widely used as an outcome measure in clinical trials, it has been criticized for its sometimes poor ability to discriminate between anxiolytic and antidepressant effects, and somatic anxiety versus somatic side effects. The HAM-A does not provide any standardized probe questions. Despite this, the reported levels of inter-rater reliability for the scale appear to be acceptable.

Scoring

Each item is scored on a scale of 0 (not present) to 4 (severe), with a total score range of 0–56, where <17 indicates mild severity, 18–24 mild to moderate severity and 25–30 moderate to severe.

Versions

The scale has been translated into: Cantonese for China, French and Spanish. An IVR version of the scale is available from Healthcare Technology Systems.

Additional references

Maier W, Buller R, Philipp M, Heuser I. The Hamilton Anxiety Scale: reliability, validity and sensitivity to change in anxiety and depressive disorders. J Affect Disord 1988;14(1):61–8.

Borkovec T and Costello E. Efficacy of applied relaxation and cognitive behavioral therapy in the treatment of generalized anxiety disorder. J Clin Consult Psychol 1993; 61(4):611–19

Address for correspondence

The HAM-A is in the public domain.

Hamilton Anxiety Rating Scale (HAM-A)

Below is a list of phrases that describe certain feeling that people have. Rate the patients by finding the answer which best describes the extent to which he/she has these conditions. Select one of the five responses for each of the fourteen questions.

0 = Not present. 1 = Mild. 2 = Moderate. 3 = Severe. 4 = Very severe.

1 Anxious mood [0] [1] [2] [3] [4]

Worries, anticipation of the worst, fearful anticipation, irritability.

2 Tension [0] [1] [2] [3] [4]

Feelings of tension, fatigability, startle response, moved to tears easily, trembling, feelings of restlessness, inability to relax.

3 Fears [0] [1] [2] [3] [4]

Of dark, of strangers, of being left alone, of animals, of traffic, of crowds.

4 Insomnia [0] [1] [2] [3] [4]

Difficulty in falling asleep, broken sleep, unsatisfying sleep and fatigue on waking, dreams, nightmares, night terrors.

5 Intellectual [0] [1] [2] [3] [4]

Difficulty in concentration, poor memory.

6 Depressed mood [0] [1] [2] [3] [4]

Loss of interest, lack of pleasure in hobbies, depression, early waking, diurnal swing.

7 Somatic (muscular) [0] [1] [2] [3] [4]

Pains and aches, twitching, stiffness, myoclonic jerks, grinding of teeth, unsteady voice, increased muscular tone.

8 Somatic (sensory) [0] [1] [2] [3] [4]

Tinnitus, blurring of vision, hot and cold flushes, feelings of weakness, pricking sensation.

9 Cardiovascular symptoms [0] [1] [2] [3] [4]

Tachycardia, palpitations, pain in chest, throbbing of vessels, fainting feelings, missing beat.

10 Respiratory symptoms [0] [1] [2] [3] [4]

Pressure or constriction in chest, choking feelings, sighing, dyspnea.

11 Gastrointestinal symptoms [0] [1] [2] [3] [4]

Difficulty in swallowing, wind abdominal pain, burning sensations, abdominal fullness, nausea, vomiting, borborygmi, looseness of bowels, loss of weight, constipation.

12 Genitourinary symptoms [0] [1] [2] [3] [4]

Frequency of micturition, urgency of micturition, amenorrhea, menorrhagia, development of frigidity, premature ejaculation, loss of libido, impotence.

13 Autonomic symptoms [0] [1] [2] [3] [4]

Dry mouth, flushing, pallor, tendency to sweat, giddiness, tension headache, raising of hair.

14 Behavior at interview [0] [1] [2] [3] [4]

Fidgeting, restlessness or pacing, tremor of hands, furrowed brow, strained face, sighing or rapid respiration, facial pallor, swallowing, etc.

रुग्ण आरोग्य प्रश्नावली - 9
(PHQ-9)

मागील 2 आठवड्यांच्या काळात, आपल्याला खालील पैकी कोणत्याही समस्येमुळे कितीवेळा त्रास झाला आहे ? *(आपले उत्तर '✓' अशी खूण करून द्या)*	अजिबात नाही	अनेक दिवस	अर्ध्याहून अधिक दिवस	जवळपास प्रत्येक दिवशी
1. गोष्टी करण्यात थोडीशी रुचि किंवा आनंद	0	1	2	3
2. हताश, उद्वीग्नता, किंवा निराश वाटणे	0	1	2	3
3. झोप लागण्यात किंवा झोपलेले राहण्यात समस्या, किंवा खूप झोप येणे	0	1	2	3
4. थकलेले किंवा थोडी ऊर्जा असल्याचे वाटले	0	1	2	3
5. भूक मंदावणे किंवा अति खाणे	0	1	2	3
6. स्वत:बद्दल वाईट वाटणे — किंवा आपण अपयशी आहोत किंवा आपण स्वत:चा किंवा आपल्या कुटुंबाचा अपेक्षाभंग केला आहे असे वाटणे	0	1	2	3
7. वर्तमानपत्र वाचणे किंवा टेलिविह्जन पाहणे यासारख्या गोष्टीवर लक्ष एकाग्र करण्यास त्रास होणे	0	1	2	3
8. हालचाल किंवा बोलणे इतके संथ होते की इतर लोकांच्या लक्षात येणे? किंवा याच्या उलट — इतके चिंताक्रांत किंवा अस्वस्थ होणे की आपण सामान्यपेक्षा बरेच अधिक इकडे-तिकडे फिरत आहात	0	1	2	3
9. आपण मेलो असतो तर चांगले झाले असते किंवा स्वत:ला काही प्रकाराने जखमी करून घेण्याचे विचार	0	1	2	3

FOR OFFICE CODING 0 + _____ + _____ + _____

=Total Score: _____

आपण कोणत्याही समस्येवर खूप कैल असेल तर, आपले काम करणे, घरी वस्तुंची काळजी घेणे, किंवा इतर लोकांसोबत वावरणे यामधे या समस्यांनी आपल्याला किती अवघड झाले ?

अजिबात अवघड झाले नाही	थोडेफार अवघड	खूप अवघड	अत्यंत अवघड
☐	☐	☐	☐

Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke आणि सहकारी यांच्यातर्फे Pfizer Inc. यांच्याकडून प्राप्त शैक्षणिक अनुदानातून विकसित. प्रतिलिपी, भाषांतर,प्रकाशन करणे अशि वापर यासाठी परवानगीची आवश्यकता नाही.

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

ID #: _____ DATE: _____

Over the last *2 weeks*, how often have you been bothered by any of the following problems?
(use "✓" to indicate your answer)

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself – or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite – being so figety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3
add columns		+	+	

(Healthcare professional: For interpretation of TOTAL, please refer to accompanying scoring card) TOTAL:

10. If you checked off *any problems*, how *difficult* have these problems made it for you to do your work, take care of things at home, or get along with other people?

- Not difficult at all _____
- Somewhat difficult _____
- Very difficult _____
- Extremely difficult _____

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PHQ-9 Patient Depression Questionnaire

For initial diagnosis:

1. Patient completes PHQ-9 Quick Depression Assessment.
2. If there are at least 4 ✓s in the shaded section (including Questions #1 and #2), consider a depressive disorder. Add score to determine severity.

Consider Major Depressive Disorder
- if there are at least 5 ✓s in the shaded section (one of which corresponds to Question #1 or #2)

Consider Other Depressive Disorder
- if there are 2-4 ✓s in the shaded section (one of which corresponds to Question #1 or #2)

Note: Since the questionnaire relies on patient self-report, all responses should be verified by the clinician, and a definitive diagnosis is made on clinical grounds taking into account how well the patient understood the questionnaire, as well as other relevant information from the patient.
Diagnoses of Major Depressive Disorder or Other Depressive Disorder also require impairment of social, occupational, or other important areas of functioning (Question #10) and ruling out normal bereavement, a history of a Manic Episode (Bipolar Disorder), and a physical disorder, medication, or other drug as the biological cause of the depressive symptoms.

To monitor severity over time for newly diagnosed patients or patients in current treatment for depression:

1. Patients may complete questionnaires at baseline and at regular intervals (eg, every 2 weeks) at home and bring them in at their next appointment for scoring or they may complete the questionnaire during each scheduled appointment.
2. Add up ✓s by column. For every ✓: Several days = 1 More than half the days = 2 Nearly every day = 3
3. Add together column scores to get a TOTAL score.
4. Refer to the accompanying **PHQ-9 Scoring Box** to interpret the TOTAL score.
5. Results may be included in patient files to assist you in setting up a treatment goal, determining degree of response, as well as guiding treatment intervention.

Scoring: add up all checked boxes on PHQ-9

For every ✓ Not at all = 0; Several days = 1;
More than half the days = 2; Nearly every day = 3

Interpretation of Total Score

Total Score	Depression Severity
1-4	Minimal depression
5-9	Mild depression
10-14	Moderate depression
15-19	Moderately severe depression
20-27	Severe depression

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