

MIDTERM TEST 1

English II – Medicine

Professor Angel Santos

Student's Name:	
I.D. NUMBER	Total: 50 points

GENERAL INSTRUCTIONS: Read each question carefully. Select, match, or classify the best answer according to the instructions. Some questions include NEW medical or research situations. Apply what you learned in class.

Suggested time: 50–60 minutes. **Test structure:** 35 questions / 50 points

PART I — MEDICAL TERMINOLOGY: 15 points

A. Matching. Medical Word Parts. Match each word part with its correct meaning. (5 points — 1 point each)

Column A	Column B
1. hypo-	A. Blood
2. nephro	B. Around
3. -ectomy	C. Surgical removal
4. peri-	D. Kidney
5. hemat/o	E. Low / below normal

B. Medical Term Analysis. Choose the best answer. (5 points — 1 point each)

6. A patient's medical record includes the term bradycardia. What does the prefix brady- indicate?

- A. Fast
- B. Slow
- C. Around
- D. High

7. The suffix -megaly indicates:

- A. Inflammation
- B. Surgical removal
- C. Enlargement
- D. Blood condition

8. Which root refers to the liver?

- A. gastr/o
- B. neur/o
- C. hepat/o
- D. arthr/o

9. A medical term ending in -itis most likely describes:

- A. An inflammation
- B. An enlargement
- C. A surgical removal
- D. A medical specialty

10. Which word part means within?

- A. sub-
- B. peri-
- C. intra-
- D. hyper-

C. Patient-Friendly Communication. Choose the clearest patient-friendly explanation. (5 points — 1 point each)

11. A physician tells a patient, “Your results show hyperglycemia.” Which explanation is clearest?

- A. Your blood pressure is above normal.
- B. Your blood sugar is above normal.
- C. Your heart rate is too fast.
- D. Your cholesterol is too low.

12. Which is the best patient-friendly explanation of nephrolithiasis?

- A. Kidney stones
- B. Kidney inflammation
- C. Kidney enlargement
- D. Kidney infection

13. A patient is diagnosed with hepatic steatosis. Which explanation is most appropriate?

- A. There is fat accumulation in your liver.
- B. Your liver has been surgically removed.
- C. Your liver is smaller than normal.
- D. There is a stone in your liver.

14. Which explanation would help a patient understand hypercholesterolemia?

- A. Your blood sugar is high.
- B. Your cholesterol level is high.
- C. Your blood pressure is low.
- D. Your heart rate is slow.

15. Which explanation best describes gastroesophageal reflux?

- A. Your stomach is inflamed.
- B. Your stomach has increased in size.
- C. Stomach acid moves back into your esophagus.
- D. Your esophagus has been surgically removed.

PART II — EVIDENCE-BASED MEDICINE (EBM). 20 points

A. EBM Concepts. Choose the best answer. (5 points — 1 point each)

16. Which THREE elements form Evidence-Based Medicine?

- A. Research evidence + physician preference + hospital policy
- B. Research evidence + clinical expertise + patient values/preferences
- C. Patient preference + social media + clinical experience
- D. Research evidence + textbook information + colleague opinion

17. Clinical expertise refers mainly to:

- A. What the patient wants
- B. Information from social media
- C. Professional knowledge, judgment, and experience
- D. Results from one scientific study

18. A patient says: "I am worried about the side effects, and I prefer a treatment that will allow me to continue working." This represents:

- A. Research evidence
- B. Patient values and preferences
- C. Clinical expertise
- D. Scientific opinion

19. A physician says: "In my clinical practice, patients with similar characteristics often require careful dose adjustment." This primarily represents:

- A. Clinical expertise
- B. Patient preference
- C. Research evidence
- D. Tertiary information

20. When asking whether research findings can reasonably be used for a particular patient, you are considering:

- A. Currency
- B. Applicability
- C. Popularity
- D. Publication length

B. EBM Clinical Situations. Read each NEW clinical situation and choose the response that best reflects Evidence-Based Medicine. (5 points — 1 point each)

21. Clinical Situation — Asthma:

A 46-year-old patient with asthma continues to experience symptoms. A recent high-quality study supports adding another medication. However, the patient is worried about possible adverse effects. The physician knows from experience that patients respond differently.

What is the best EBM approach?

- A. Add the medication immediately because research evidence is always the final decision.
- B. Avoid the medication because the patient is worried.
- C. Consider the research, physician's clinical judgment, and patient's concerns before deciding.
- D. Follow only the physician's previous experience.

22. Clinical Situation — Chronic Pain:

A physician is considering a new intervention for a patient with chronic pain. A colleague strongly recommends it, but provides no scientific evidence. The physician has not yet reviewed the patient's previous treatments.

What is the most appropriate next step?

- A. Use the intervention because the colleague recommends it.
- B. Review relevant evidence and obtain more information about the patient.
- C. Reject the intervention because colleagues are unreliable.
- D. Let the patient choose without discussing the evidence.

23. Clinical Situation — High Cholesterol:

Research supports a medication for reducing cardiovascular risk. However, before recommending it, the physician realizes that important information about the patient's medical history and other medications is missing.

What should the physician do?

- A. Prescribe immediately because research supports the medication.
- B. Ignore the research and use personal experience.
- C. Obtain the missing clinical information before making the final decision.
- D. Ask another physician to make the decision.

24. Clinical Situation — Treatment Choice:

Two treatments are supported by scientific evidence. Treatment A may be more effective but has more adverse effects. Treatment B may be less effective but has fewer adverse effects. The patient strongly prefers to avoid adverse effects.

Which EBM component becomes especially important when discussing the options?

- A. Patient values and preferences
- B. Publication date only
- C. Colleague opinion
- D. Hospital popularity

25. Clinical Situation — Evidence:

A study was well designed and published recently, but the participants were very different from the patient you are treating.

Which characteristic of evidence should you examine most carefully?

- A. Currency
- B. Applicability
- C. Article length
- D. Popularity

PART III — SOURCES IN SCIENTIFIC RESEARCH. 15 points

A. Classify the Source. Classify each description as PRIMARY, SECONDARY, TERTIARY, or DATABASE. (5 points — 1 point each)

26. Researchers recruit 900 adults and measure changes in kidney function over six years.

PRIMARY | SECONDARY | TERTIARY | DATABASE

27. An article combines and analyzes results from 27 previously published studies about cardiovascular prevention.

PRIMARY | SECONDARY | TERTIARY | DATABASE

28. A medical student consults a reference book for a general overview of thyroid disorders.

PRIMARY | SECONDARY | TERTIARY | DATABASE

29. A student uses MEDLINE to locate research articles about neurological disorders.

PRIMARY | SECONDARY | TERTIARY | DATABASE

30. Researchers randomly assign patients to two groups to compare the effectiveness of two interventions.

PRIMARY | SECONDARY | TERTIARY | DATABASE

B. Research Situations. Choose the best answer. (5 points — 1 point each)

31. Maria wants to examine the original results of research testing a new diagnostic procedure. Which source would be most appropriate?

- A. Primary source
- B. Secondary source
- C. Tertiary source
- D. Medical encyclopedia

32. A research team wants to understand the overall findings of many previous studies about a medical intervention. Which would be most appropriate?

- A. Case report
- B. Systematic review
- C. Medical dictionary
- D. One original experiment

33. A first-year medical student needs general background information about a disease before beginning a literature search. Which source would be most appropriate initially?

- A. Tertiary source
- B. Primary source
- C. Original clinical trial
- D. Laboratory experiment

34. A student searches PubMed and finds an original cohort study. Which statement is correct?

- A. The article becomes a tertiary source because it was found on PubMed.
- B. PubMed is the primary source.
- C. The cohort study is a primary source; PubMed helped the student find it.
- D. Every article found in PubMed is a secondary source.

35. Which clue most strongly suggests that an article is a secondary source?

- A. Researchers recruited participants.
- B. Researchers measured patient outcomes.
- C. Researchers searched databases and analyzed previously published studies.
- D. Researchers randomly assigned patients to treatment groups.