

## 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.