

PHARMACOTHERAPEUTICS (ER20-24T)

UNIT-1: INTRODUCTION TO PHARMACOTHERAPEUTICS, RDU, EML, STGs

□ PUZZLE 1: The Confused Prescriber

Case Scenario:

A newly graduated doctor prescribes three antibiotics, two analgesics, and a vitamin injection for a patient suffering from simple viral fever. The patient develops gastric irritation and does not improve.



Puzzle Questions:

1. Identify the **pharmacotherapeutic error** in this prescription.
2. Which principle of **Rational Use of Medicines** is violated?
3. Name one **objective of Pharmacotherapeutics** that could prevent this issue.
4. Which healthcare professional can help correct this therapy?

□ PUZZLE 2: Evidence or Experience?

Case Scenario:

A senior physician continues prescribing Drug X for hypertension because it has been used for 20 years. However, recent clinical trials show Drug Y reduces mortality more effectively.



Puzzle Questions:

1. Which concept supports the use of Drug Y?
2. Define **Evidence-Based Medicine**.
3. What are the **three core components of EBM** involved in this decision?
4. Why is relying only on experience risky?

□ PUZZLE 3: The Essential or the Expensive?

Case Scenario:

Two brands are available for treating malaria:

- Drug A: Low cost, listed in EML
- Drug B: Very expensive, heavily advertised, same efficacy

The hospital pharmacy stocks Drug B.



Puzzle Questions:

1. Which medicine should ideally be selected and why?
2. What is the **Essential Medicines List (EML)**?
3. Who prepares and updates the EML in India?
4. Mention **two criteria** for selecting drugs into EML.

□ PUZZLE 4: Missing Guidelines

Case Scenario:

A rural hospital treats tuberculosis patients differently depending on the doctor on duty. Treatment duration and drug combinations vary.



Puzzle Questions:

1. What is lacking in this hospital's treatment system?
2. Expand **STGs**.
3. Mention **two advantages of following STGs**.
4. How do STGs improve patient safety?

□ PUZZLE 5: Too Many Medicines!

Case Scenario:

An elderly patient with diabetes, hypertension, and arthritis is prescribed 9 medicines. He forgets doses and develops adverse drug reactions.



Puzzle Questions:

1. Identify the pharmacotherapeutic problem.
2. Which principle of **Rational Drug Therapy** is affected?
3. How can STGs help in this case?
4. What role does a pharmacist play here?

□ PUZZLE 6: Rational or Irrational?

Case Scenario:

A patient with acute diarrhea is given antibiotics, antispasmodics, antiemetics, probiotics, and IV fluids without laboratory confirmation.



Puzzle Questions:

1. Is this rational or irrational therapy? Justify.
2. Which **objective of pharmacotherapeutics** is violated?
3. Which medicines may be unnecessary?
4. How would EBM change this treatment?

□ PUZZLE 7: Match the Concept

Match Column A with Column B

Column A

Column B

- | | |
|------------------------------|--|
| 1. Pharmacotherapeutics | A. Cost-effective medicine list |
| 2. Rational Use of Medicines | B. Best evidence + clinical expertise |
| 3. EBM | C. Safe and effective drug use |
| 4. EML | D. Application of drugs to treat disease |
| 5. STGs | E. Uniform treatment protocols |

□ PUZZLE 8: One-Line Challenge

Fill in the blanks:

1. The main goal of pharmacotherapeutics is _____ and _____ treatment.
2. EBM reduces _____ prescribing.
3. EML focuses on _____, _____, and affordability.
4. STGs help in _____ use of medicines.