CHAPTER-V

RATIONAL USE OF DRUGS

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Definition

- Use of an appropriate, efficacious, safe and cost effective drug given for the right indication in the right dose and formulation, at right intervals and for the right duration of time
**Irrationality**

- Ineffective and unsafe drug treatment
- Worsening or prolonging of illness
- Adverse drug reaction
- Increases the cost to the patient
- Antibiotic resistance
Reason for irrational use of drugs

- Easy accessibility to prescription drugs
- Easy access to OTC
- Advice by friends, relatives and persons on medicine
- Patient decision
- Advertisement
Irrational prescribing Practices

- Prescribing drugs of no proven value
- Prescribing empirically
- Unnecessary prescribing for self limiting conditions
- Overdosing and underdosing
- Prescribing costly drugs
Guidelines for rational prescribing

- Define patient problem and establish therapeutic goal
- Use drug only when indicated and when potential benefits outweigh the risk
- Choose a drug of proven efficacy and safety and must be suitable for individual patient
- Avoid using more than one drug of the same chemical class at the same time
- Inform the patient
- Monitor the effects of treatment
- Decide whether the drug should be continued at the present dose or stopped
- If treatment has not been effective, identify the reason
Misuse of antibiotics

- Common cold
- Upper respiratory infection
- Starting antibiotics without diagnosis
- Frequently changing antibiotics
- Giving suboptimal dose
- Not completing the course of treatment
Rational use of antibiotics

- Use antibiotics only when indicated
- Before commencing antibiotic therapy, specimen for gram stain, culture, sensitivity testing should be obtained
- Choice should be based on suspected causative organism, safety, previous clinical response, cost, ease of use, potential for resistant organism
- Adequate dose and duration of treatment
- History of allergy or ADR
- Prophylactic use of antibiotics restricted
- Oral therapy preferred more than parenteral therapy
- Antimicrobial combination should only be used where indicated
- More effective and least toxic
- Topical antibiotics restricted to few proven indication
Rational use of injections

- Oral administration is not tolerated
- Absorption problem
- Drug of choice formulated as parenterals
- High tissue concentration are needed
- Urgent treatment required
- Not comply with oral therapy
Rational use of OTC drugs

- Patient desire for treatment
- Pharmacist desire
- Contraindication
- Drug interaction
Pharmacist role

- Drug procurement
  - Procure cost effective
- Inventory control