

Factors modifying drug action

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- The specific effect which drugs exert on certain organs may be altered in both intensity and rate of appearance and disappearance. This variance of drug action may be due to a number of factors not inherent in the drug itself.

- A multitude of host & environmental factors influence drug response. Understanding of these factors can guide choice of appropriate drug & dose for individual patient.
- Variation in response to the same dose of a drug between different patients and even in the same patient on different occasions will occur. The range of variability may be marked or limited depending on the pharmacokinetic & Pharmacodynamic characteristics of the drug. Drugs mostly disposed by metabolism are most effected (e.g. propranolol) while those excreted by the kidneys are least effected (e.g. atenolol).

- This chapter, therefore, deals with the following factors which modify drug action:
 - (1) route of administration,
 - (2) rate and degree of absorption,
 - (3) rate of elimination,
 - (4) effect of other drugs,
 - (5) tolerance,
 - (6) idiosyncrasy and allergy,
 - (7) disease.

- 1. Physiological Factors.
 - 2. Pathological Factors (Diseases)
 - 3. Genetic Factors
 - 4. Environmental Factors
 - 5. Interaction with other drugs
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- There exists no specific dose. The decision lies with the doctor. Giving optimum dose is mandatory for desired results. Pharmacopoeia gives the guidelines and ranges. All factors affecting absorption and biotransformation may influence the outcomes of drug actions.