Routes of Drug Administration - Conceptual Study

Experiment 4 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

To understand and record the stated experimental-pharmacology concept.

Principle

Administration route affects onset, absorption, systemic availability and local exposure.

Key Points

- Compare oral, intravenous, intramuscular, subcutaneous, topical and inhaled routes.
- Intravenous administration avoids an absorption step; other routes have route-dependent absorption.
- Use diagrams and software; no administration is performed.

Activity Procedure

1. Classify

Group routes as enteral, parenteral or other appropriate categories.

2. Compare

Describe onset, first-pass considerations and local/systemic purpose.

3. Read virtual record

Identify the route label in a supplied simulation.

4. Discuss limits

Explain why the same nominal amount can produce different exposure by different routes.

Record and Observations

Field	Teaching record
Model / instrument / route	_____
Endpoint / units	_____
Relevant control	_____
Interpretation / limitation	_____

Result

The concept was explained and the teaching record completed. Key finding: _____. Limitation: _____.

Viva Questions and Answers

1. What is first-pass metabolism?

Presystemic metabolism that can reduce systemic availability after some routes.

2. Does topical always mean local only?

No; systemic absorption depends on the product and application.

3. Why must the route be recorded?

It is essential to interpret exposure and response.

First Hope

COMPLETE NOTES

Click here to visit our website

PHARMACY PRACTICAL NOTES

Complete subject and semesters are available on FirstHope app only.

Scan or click here

Click here to get the app >

Available on Google Play

JOIN THE FIRSTHOPE COMMUNITY

Join our Telegram channel

Click here to join Telegram >

Scan or click here

@FirstHopeNotes

Instagram

@firsthope.official

Click here to follow >

YouTube channel

FirstHope-Pharmacy / Live streams

Click here to watch >

WhatsApp channel

Follow FirstHope on WhatsApp

Click here to join >

FirstHope website

firsthope.co.in

Click here to visit >

B.Pharm / D.Pharm / M.Pharm / Pharm.D

Complete subjects and semesters are available in the FirstHope app.