Anticonvulsant Effect in Electroconvulsive Model - Simulation

Experiment 12 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

To assess a software anticonvulsant endpoint.

Principle

The virtual maximal-electroshock model represents a defined seizure pattern. Protection against the specified endpoint is assessed from software records, without inducing seizures.

Hypothetical Dataset

These original figures illustrate analysis only. They are not live observations or dosing instructions.

Virtual group	Protected	Total
Control	0	5
Treatment	4	5

Requirements

- Institution-approved pharmacology simulation such as ExPharm
- Predefined virtual control and treatment records
- Worksheet or spreadsheet for graphing and calculation

Procedure

1. Open the exercise

Select the named virtual model and read its endpoint and default settings.

2. Review controls

Record the baseline, vehicle/control and comparator entries supplied by the software.

3. Run the simulation

Use the instructor-assigned virtual treatment option; record the output and units.

4. Compare

Compare the defined endpoint between control and treatment; repeat a virtual run only if the exercise requires it.

5. Analyse

Use the supplied calculation or response trend and state possible confounders.

6. Record

Save the virtual results and write an interpretation that identifies them as simulated.

Interpretation Guide

State the endpoint, such as absence of the assigned tonic-extension pattern. Results depend on the model and do not represent all seizure types.

Observations and Record

Group / run	Endpoint: Protected / total virtual records	Student record
Control	Unprotected model record	_____
Treatment	Assigned anticonvulsant such as phenytoin	_____
Software / setting	Assigned virtual exercise	_____

Worked Example

The numbers below are illustrative; enter your own observations in the record.

- Protection (%) = protected records / total records × 100.
- Treatment: 4 / 5 × 100 = 80%.

Result

In the software exercise, _____ changed from _____ to _____. The result _____ supports the stated model effect. Confounders/limits: _____.

Precautions

- Use software only; no live animal, tissue collection or drug administration is performed.
- Do not alter safety or validity settings to make a desired result.
- A virtual output demonstrates the model's programmed response and is not a patient treatment recommendation.

Viva Questions and Answers

1. Why define protection?

Different studies may score different seizure endpoints.

2. What is done in class?

Only the approved simulation and record analysis.

3. Why identify the data as simulated?

It prevents a programmed result from being represented as a real experimental observation.

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.