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.

Research Proposal and Proposal Presentation

Practical 2 - Supervised research activity guide

Aim

To prepare and defend a feasible M.Pharm research proposal.

Principle

A proposal converts a justified knowledge gap into a specific question, reproducible methods, ethical and safety controls and a realistic analysis and resource plan.

Materials and Requirements

- Approved research topic or open-access paper and study records
- Supervisor guidance, institutional ethics/safety requirements and assessment rubric
- Research notebook, analysis plan and presentation tools
- Approved method or teaching-data pack and a dated record sheet

Procedure

1. Define the preparation or dataset, study question and method version. Record identities, units and the criteria to be used before examining the outcome.
2. Define the research question, activity stage, evidence sources and deliverable with the supervisor. Keep supplied originals and a dated record of decisions.
3. Define the problem, concise evidence gap, objectives and testable hypothesis or research question.
4. Specify materials/population, controls, independent replicates, randomisation/blinding where suitable and the primary endpoint.
5. Justify the sample-size or replication plan and statistical methods using design, effect/precision assumptions and the correct experimental unit.
6. Prepare ethics/safety permissions, timeline, resources, data management, limitations and contingency plans, then rehearse the proposal presentation.
7. Check scientific accuracy, traceability, authorship and confidentiality. Record limitations and obtain the appropriate academic review before dissemination.
8. Retain the original observations and calculations. State deviations, missing information and the limits of the conclusion; do not replace measured values with expected results.

Observations and Record

Enter actual measurements or the supplied teaching data. Record the method, material identity, conditions and units.

Task / evidence	Planned method / criterion	Completed record	Review / next action
Scientific question	Define	Record	Assess
Methods / evidence	Justify	Record	Assess
Analysis / communication	Predefine	Record	Assess

Calculations

- Approximate equal-size two-group continuous-outcome n per group = 2(z_alpha/2 + z_beta)^2 sigma^2 / delta^2, under the stated assumptions

Worked Example

Illustrative two-group planning model with SD 10, difference 5, two-sided alpha 0.05 and power 80% gives n approximately 2(1.96 + 0.84)^2 x 10^2/5^2 = 62.72, rounded to 63 per group.
Allowing 10% attrition gives 63/0.90 = 70 per group. This approximation is not suitable for every endpoint, design or feasibility study.

Result and Interpretation

• Deliver a proposal, method flowchart, schedule, budget and a question/answer record from the defence.

Precautions

• Do not fabricate observations, approvals, participant records or citations.
• Use the appropriate permissions for human, animal, biological or confidential work.
• Distinguish exploratory analysis from prespecified confirmatory analysis.

Viva Questions and Answers

What makes an objective measurable?

It identifies a defined endpoint and study context.

Why choose a primary endpoint?

It focuses design and analysis and limits selective outcome emphasis.

Can replication be chosen by habit?

It should be justified by the study question, variation and required precision.

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.