

WORLD CON - CLINICAL RESEARCH



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IRCAD INDIA, INDORE (MP)



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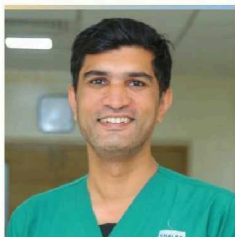
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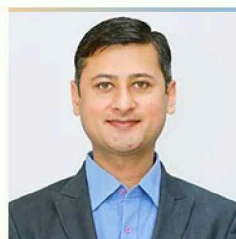
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This module is designed as a comprehensive guide for delegates at World Con 2026. It provides a structured roadmap for navigating the journey from a clinical observation to a published original research article.

MODULE: MASTERING RESEARCH METHODOLOGY & PUBLICATION

CONFERENCE →



FOCUS:

Bridging the Gap Between Clinical Practice
and Evidence-Based Research

I. INTRODUCTION

- Research is the systematic investigation into and study of materials and sources in order to establish facts and reach new conclusions. In the medical field, research is the engine of progress; it validates current treatments, identifies new disease markers, and improves patient outcomes.

For a clinician, research is not merely an academic requirement but a professional responsibility. Whether it is an autopsy-based study on injury dating or assessing autonomic functions in chronic diseases, the goal remains the same: to contribute reproducible and reliable data to the global medical community.

II. HOW TO DO RESEARCH: THE SYSTEMATIC APPROACH

- Conducting high-quality research requires a disciplined, step-by-step process to ensure the results are valid and ethical.

Identify the Research Question:

Use the **FINER** criteria (Feasible, Interesting, Novel, Ethical, and Relevant).

Literature Review:

Search databases **PubMed, Google Scholar** to understand what is already known and identify the knowledge gap.

Formulate a Hypothesis:

Create a testable statement predicting the relationship between variables (e.g.,
There is a significant correlation between HRV and cardiovascular risk.

STUDY DESIGN SELECTION:

- **Observational:** Case-control, Cohort, or Cross-sectional.
- **Experimental:** Randomized Controlled Trials (RCTs).
- **Descriptive:** Case series or Case reports.

ETHICAL APPROVAL:

- Obtain clearance from the **Institutional Ethics Committee (IEC)** before any data collection begins.

DATA COLLECTION:

- Use standardized tools, master charts, and blinded observations to minimize bias.

III. HOW TO WRITE AN ORIGINAL RESEARCH ARTICLE

- The standard format for an original article follows the IMRaD structure (*Introduction, Methods, Results, and Discussion*).

1. TITLE & ABSTRACT

- **Title:** Concise and descriptive, mentioning the study design.
- **Abstract:** A 250-word "trailer" of your study, covering the objective, brief methods, key results, and conclusion.

2. INTRODUCTION

- Start broad (the burden of the disease).
- Narrow down to the specific problem (what is unknown?).
- End with the specific Aims and Objectives of your study.

3. MATERIALS AND METHODS

- › Define the study settings, duration, and population.
- › Detail the Inclusion and Exclusion Criteria.
- › Describe the procedures (e.g., how the sustained hand-grip test was performed) so others can replicate your work.

4. RESULTS

- › Present findings objectively. Use tables for demographic data and master charts for complex correlations.
- › Do not interpret the data here; let the numbers speak.

5. DISCUSSION

- › Compare your findings with existing literature.
- › Explain why your results occurred.
- › Acknowledge the limitations of your study and suggest future research directions.

IV. BIostatistics: THE LANGUAGE OF DATA

- › Statistics turn raw data into meaningful evidence. For most clinical research, the following concepts are vital:

Concept	Definition/Usage
P-Value	Measures probability. A value of $p < 0.05$ is generally considered "statistically significant."
Mean/Median	Measures of central tendency for normal and skewed data, respectively.
Correlation (r)	Used to see how two variables (like Heart Rate Variability and Risk scores) move together.
Sensitivity/Specificity	Crucial for diagnostic studies to determine the accuracy of a test.
Sample Size (n)	Must be calculated beforehand to ensure the study has enough "power" to detect a difference.

V. SUMMARY

- ▶ Successful research at World Con 2026 hinges on a clear objective, a rigorous methodology, and transparent reporting. By following the IMRaD structure and applying sound biostatistical principles, researchers can ensure their work stands up to peer review and contributes meaningfully to the medical archive.

REMEMBER :

Good research starts with a question, but great research ends with a better question.

ACCOMMODATION & AMENITIES

To ensure a comfortable experience, IRCAD INDIA offers:

- ▶ **Luxury On-Campus Stay:** World-class amenities at IICC.
- ▶ **Nutritious Dining:** Healthy meals in a relaxing setting.
- ▶ **Easy Transportation:** 20 mins from the airport, 30 mins from the railway station.
- ▶ **Complimentary Wi-Fi:** Stay connected anytime.
- ▶ **Event Spaces:** Two Conference halls and board meeting rooms.
- ▶ **Fitness & Wellness:** Fully equipped gym.
- ▶ **24/7 Service & Accessibility:** Room service, ample parking, and wheelchair-friendly facilities.



