



**MOHI-UD-DIN ISLAMIC MEDICAL COLLEGE
MIRPUR**

DEPARTMENT OF MEDICAL EDUCATION

**Journal Club Guidebook
MBBS Program**

FOR FACILITATOR & STUDENT

2026-27



Department of Medical Education
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Journal Club Guidebook

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APPROVED BY:	Principal	COMPILED BY:	DME	
ENDORSED BY:	Curriculum Review Committee			

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PREFACE

In an era of rapidly advancing medical science, the ability to critically evaluate evidence and integrate research into clinical practice is not merely an academic exercise—it is a fundamental professional responsibility. This Journal Club Guidebook is designed to be your structured companion in cultivating these essential skills throughout your MBBS journey at Mohi-ud-Din Islamic Medical College.

Aligned with the PMDC competency framework, our Journal Club program is intentionally scaffolded across all five years, transforming you from a novice reader of scientific literature into a confident, evidence-based practitioner. Each session is an opportunity to strengthen your roles as a Researcher, Decision Maker, Communicator, and ethical Care Provider.

This journal club activity is integral part of your MBBS curriculum and will be assessed by both, the formative as well as the summative assessment.

We are confident that diligent engagement with this guided process will not only enhance your academic performance but will also play a durable foundation for lifelong learning and exemplary patient care. Your journey toward becoming a competent, reflective, and innovative physician starts here.

INTRODUCTION:

Purpose of This Guidebook

This guidebook serves as an authoritative academic manual for MBBS students to understand, prepare for, and actively participate in Journal Club activities integrated within the undergraduate medical curriculum.

Journal Club is **not an examination**, nor a passive lecture.

It is a **structured educational strategy** designed to inculcate:

- ✓ Critical thinking
- ✓ Research literacy
- ✓ Scientific communication
- ✓ Evidence-based clinical reasoning

Early exposure to these competencies ensures that graduates transition from information consumers **to** evidence-informed decision makers, in accordance with PMDC Undergraduate Medical Education standards.

WHAT IS A JOURNAL CLUB AND WHY IS IT IMPORTANT?

Journal Club as a foundational exercise in evidence-based medicine, designed to cultivate critical thinking and scientific communication skills early in your medical career.

A Journal Club is a structured meeting, **NOT A LECTURE** where students and faculty critically evaluate a recent scientific research article. In MBBS Program, this activity bridges your foundational science knowledge with clinical application. It is not about passive reading; it is an active process of questioning, analyzing, and determining the validity and relevance of medical research. This practice is essential for becoming a lifelong learner and an evidence-based practitioner.

EDUCATIONAL SIGNIFICANCE OF JOURNAL CLUB IN MBBS

Journal Club is a core component of evidence-based medical education and contributes to the following domains:

- Cognitive Development
- Interpretation of scientific literature
- Understanding research methodology
- Recognition of bias and limitations
- Clinical Reasoning
- Linking research findings to patient care
- Evaluating relevance to local healthcare settings
- Professional Development
- Academic communication skills
- Ethical appraisal of research
- Readiness for symposia and research conferences.

CURRICULAR INTEGRATION & SCHEDULING

Journal Club sessions are horizontally integrated within the modular MBBS curriculum and vertically scaffolded across years to increase complexity.

The Journal Club will be held once per block. This ensures regular exposure to scientific literature without overwhelming your schedule. The article will be thematically linked to any module of a block you are studying, making your learning cohesive and relevant.

Schedule:

Year 1: Three Journal Club in Blocks A, B, and C.

Year 2: Three Journal Club in Blocks D, E, and F.

Year 3: Three Journal Club in Blocks G, H, and I.

Year 4: Three Journal Club in Blocks J, K, and L.

Year 5: 4 Journal Club in Blocks M, N, O, P

JC are a cornerstone of the integrated MBBS curriculum at MIMC, strategically designed to cultivate the core PMDC competencies expected of a medical graduate. Through the structured critique of scientific literature, students actively develop their roles as Researchers and Decision Makers by learning to appraise evidence. The forum enhances skills as Communicators and Professionals through guided academic discourse, while the application of findings to clinical and community contexts reinforces the competencies of Care Providers and Community Health Advocates. Ultimately, this iterative practice fosters the lifelong learning and ethical judgment integral to the PMDC's vision of a competent physician.

SPECIFIC LEARNING OBJECTIVES FOR MBBS PROGRAM:

The following year-wise learning objectives (bare minimum) are aligned with the PMDC Seven-Star Doctor competencies and are designed to ensure systematic development of research, communication, professionalism, and clinical reasoning skills throughout the undergraduate medical program.

MBBS YEAR I

Focus: Foundational Research Literacy & Scientific Understanding

Learning Objectives

By the end of Year I, through participation in Journal Club activities, the student shall be able to:

1. Identify the basic structure of a scientific research article (title, abstract, introduction, methods, results, discussion).
(PMDC: *Researcher*)
2. Describe the primary aim and key findings of a simple medical research study in their own words.
(PMDC: *Communicator, Researcher*)
3. Demonstrate responsibility for self-directed learning by completing assigned pre-session article reading within the allocated DSL time.
(PMDC: *Professional, Manager*)
4. Recognize the relevance of research to basic medical sciences and current module themes.
(PMDC: *Decision Maker*)
5. Participate respectfully in guided academic discussions during Journal Club sessions.
(PMDC: *Communicator, Professional*)

MBBS YEAR II

Focus: Understanding Study Designs & Bias

Learning Objectives

By the end of Year II, the student shall be able to:

6. Differentiate between common observational and analytical study designs (cross-sectional, cohort, case-control).
(PMDC: *Researcher*)
7. Identify potential sources of bias and confounding in selected research articles.
(PMDC: *Decision Maker, Researcher*)
8. Explain the relationship between research questions and study design at an introductory level.
(PMDC: *Researcher*)
9. Demonstrate effective academic communication skills during Journal Club discussions.
(PMDC: *Communicator*)
10. Show accountability for pre-session preparation using DSL time productively.
(PMDC: *Professional, Manager*)

MBBS YEAR III

Focus: Critical Appraisal & Methodological Rigor

Learning Objectives

By the end of Year III, the student shall be able to:

11. Critically appraise the methodology of clinical and laboratory-based research articles.
(PMDC: *Researcher, Decision Maker*)
12. Assess internal validity by evaluating randomization, blinding, outcome measures, and statistical analysis.
(PMDC: *Researcher*)
13. Interpret research findings in relation to disease mechanisms and pharmacological principles.
(PMDC: *Care Provider, Decision Maker*)
14. Engage constructively in scholarly debate, supporting arguments with evidence.
(PMDC: *Communicator, Professional*)
15. Demonstrate ethical awareness in relation to human research.
(PMDC: *Professional*)

MBBS YEAR IV

Focus: Clinical Application & Evidence-Based Decision Making

Learning Objectives

By the end of Year IV, the student shall be able to:

16. Apply research evidence to clinical decision-making in medicine and surgery.
(PMDC: *Care Provider, Decision Maker*)
17. Compare research findings with existing clinical guidelines and standards of care.
(PMDC: *Decision Maker, Manager*)
18. Evaluate the applicability of evidence to local and national healthcare settings.
(PMDC: *Community Health Advocate*)
19. Demonstrate competence in structured critical appraisal, suitable for summative assessment.
(PMDC: *Researcher*)
20. Exhibit professionalism, preparedness, and leadership during Journal Club discussions.
(PMDC: *Professional, Leader*)

MBBS YEAR V

Focus: Evidence Synthesis, Ethics & Clinical Integration

Learning Objectives

By the end of Year V, the student shall be able to:

21. Synthesize evidence from multiple sources to inform patient management decisions.
(PMDC: Decision Maker, Care Provider)
22. Critically evaluate high-level evidence (systematic reviews, guidelines, meta-analyses).
(PMDC: Researcher)
23. Integrate ethical, cost-effectiveness, and feasibility considerations into clinical decision-making.
(PMDC: Manager, Professional)
24. Apply evidence during clinical clerkships, demonstrating workplace-based evidence-based practice.
(PMDC: Care Provider)
25. Demonstrate lifelong learning behaviors through independent literature review and reflection.
(PMDC: Professional)

HOW A JOURNAL CLUB IS CARRIED:

Pre-Session Process:

The pre-session is the preparation of journal club by assigned module coordinator. The module coordinator act as a facilitator, guide, and discussion leader for the Journal Club with following responsibilities and actions.

Responsibility	Actions
Article Selection	Selects one appropriate article per module, matching the year's complexity level.
Checklist Design	Prepares a year-specific critical appraisal checklist (see page 9).
Pre-Session Communication	Distributes article and checklist to all students one week before the session.
Session Facilitation	Display article, lead discussion using checklist questions, ensures broad participation.
Learning Reinforcement	Clarifies concepts, links findings to module themes, summarizes key takeaways.

Article Selection

Selected by: Module Coordinator at least a week before the commencement of the journal club. The selected article is shared by the module coordinator in PDF or print format with the students through the class representative.

Criteria:

- Recent (≤ 3 years), peer-reviewed, high-impact journal
- Align to (organ based) module or any of its theme predominantly with clinical relevance.
- Appropriate study design for year level as per details given in the table below.
- Progressive scaffolding concept shall be adopted i.e. from easy level in first year to complexity to final year with clinical relevance.

Year-Wise Article Selection & Appraisal Focus

Year	Appraisal Focus	Example Article Types	Checklist Emphasis	Department
1	Basic comprehension	Observational studies, cross-sectional surveys	Understanding aim, methods, results	Block A=Physiology, Block B=Anatomy, Block C =Biochemistry
2	Introduction to study designs	Cohort studies, case-control, diagnostic accuracy	Identifying design, bias, basic stats	Block D= Physiology Block E= Anatomy Block F= Biochemistry
3	Critical analysis of methods	RCTs, systematic reviews	Randomization, blinding, confounders	Block G= Forensic Med Block H= Pathology Block I=Pharmacology
4	Clinical application & guidelines	Clinical trials, meta-analyses	Applicability, guidelines integration	Block J= Pathology Block K= Surgery Block L= Medicine
5	Synthesis & practice impact	Complex trials, guidelines, cost-effectiveness analyses	Evidence grading, implementation, ethics	Block M=ENT/EYE Block N=Surgery Block O=Medicine

Student Preparation

All students must, before the session:

- *Read the article thoroughly.*
- *Complete the Critical Appraisal Worksheet*
- *Prepare at given questions or discussion points.*

During The Session:

A 60-minute scheduled session is carried out by the module coordinator in designated lecture hall. The module coordinator act as facilitator and follows the following activity steps.

Time	Activity	Description
0–5 min	Introduction	Teacher displays article on PowerPoint, states learning objectives, explains session rules.
5–40 min	Guided Group Discussion	Teacher goes through checklist question-by-question, calling on students randomly to share answers, encouraging debate and clarification.
40–50 min	Synthesis & Clinical Relevance	Teacher summarizes key insights, links article to module content, discusses real-world application.
50–60 min	Assessment & Feedback	Teacher collects completed checklists, gives brief feedback, previews next JC topic.

ASSESSMENT AND FEEDBACK:

During the last 10 minutes, during the final segment, the facilitator provides **immediate, constructive verbal feedback** to the entire group. This summary highlights what was done well,

identifies collective areas for future growth, and reinforces the key learning objectives of the session. The feedback should be specific, balanced, and encouraging to motivate continuous improvement.

Structure for Effective Verbal Feedback:

- **Acknowledge Strengths:** Begin by highlighting 1-2 positive aspects of the group's discussion (e.g., "The class did an excellent job identifying the primary limitation of the study design," or "I was impressed by the thoughtful debate on the clinical applicability of the results.").
- **Identify a Growth Opportunity:** Point out 1-2 specific areas where the collective analysis could deepen in future sessions (e.g., "Next time, let's challenge ourselves to more critically appraise the statistical methods," or "We can improve by more directly comparing these findings to our local clinical guidelines.").
- **Frame the 'Take-Home' Message:** Conclude by succinctly restating the single most important insight from the article with clinical relevance and the discussion, connecting it directly to the module's themes or clinical practice.

Journal Club is a **formative assessment** activity. However, the summative assessment will be included in the 4th-year MBBS Program as MCQs and two station during integrated Practical examination in Block L, under the supervision of department of community Medicine.

This guidebook equips you with the tools and framework to confidently participate in Journal Club. Embrace this opportunity to develop a critical eye, engage with the forefront of medical science, and lay the foundation for a practice grounded in evidence.

We wish you the best of luck in your Journal Club journey at MIMC.

CRITICAL APPRAISAL WORKSHEET – MBBS YEAR I

Foundational Research Literacy & Scientific Understanding

Student Name:	
Roll No:	
Block:	
Department:	
Facilitator:	
Article Title:	

Item	Student Response
SECTION A: BASIC IDENTIFICATION	
Title of Article	
Journal Name	
Year of Publication	
Type of Study (e.g., Survey, Observational)	
Main Topic of the Article	
SECTION B: PURPOSE & UNDERSTANDING	
What was the main aim of the study?	
Why was this study conducted?	
What problem does the study address?	
Is the topic related to your current module? How?	
SECTION C: METHODS (BASIC LEVEL)	
Study Population (Who was studied?)	
Number of participants	
Type of data collected	
Duration of the study	
SECTION D: RESULTS (SIMPLIFIED)	
What were the main findings?	
Were results easy to understand?	
Were tables or figures used?	
SECTION E: REFLECTION	
What is one new thing you learned from this article?	
Was the article easy or difficult to read? Why?	

CRITICAL APPRAISAL WORKSHEET – MBBS YEAR II

Focus: Study Design & Bias

Student Name:	
Roll No:	
Block:	
Department:	
Facilitator:	
Article Title:	

Item	Student Response
SECTION A: IDENTIFICATION	
Study Design (Cohort / Case-Control etc.)	
Study Setting	
Sample Size	
SECTION B: RESEARCH QUESTION	
Is the research question clearly stated?	
Is the study design appropriate for the question?	
SECTION C: METHODOLOGY	
Sampling Technique	
Inclusion Criteria	
Exclusion Criteria	
Variables Studied	
SECTION D: BIAS & LIMITATIONS	
What type of bias may be present?	
Were confounders addressed?	
One limitation of the study	
SECTION E: INTERPRETATION	
Do the results support the conclusion?	
Overall quality of the study (Good/Fair/Poor)	

CRITICAL APPRAISAL WORKSHEET – MBBS YEAR III

Focus: **Focus:** Critical Appraisal & Methodological Rigor

Student Name:	
Roll No:	
Block:	
Department:	
Facilitator:	
Article Title:	

Item	Student Response
SECTION A: STUDY DESIGN ANALYSIS	
Type of Study	
Randomization used?	
Blinding (if any)	
SECTION B: METHODS & ANALYSIS	
Are methods described clearly?	
Are outcomes clearly defined?	
Are statistical tests mentioned?	
SECTION C: VALIDITY	
Internal validity (Strong/Moderate/Weak)	
Major methodological strength	
Major methodological weakness	
SECTION D: DISCUSSION	
Are conclusions justified?	
Are limitations discussed adequately?	

CRITICAL APPRAISAL WORKSHEET – MBBS YEAR IV

Clinical Application & Evidence-Based Decision Making

Student Name:	
Roll No:	
Block:	
Department:	
Facilitator:	
Article Title:	

Question	Student Response
SECTION A: CLINICAL RELEVANCE	
What clinical problem does this study address?	
Is the problem common in clinical practice?	
SECTION B: RESULTS & APPLICATION	
Primary clinical outcome	
Are results clinically significant?	
Can findings be applied locally?	
SECTION C: COMPARISON WITH GUIDELINES	
Do results align with current guidelines?	
Any difference from standard practice?	
SECTION D: DECISION MAKING	
Would this study influence patient care?	
Why or why not?	

CRITICAL APPRAISAL WORKSHEET – MBBS YEAR V

Focus: Evidence Synthesis, Ethics & Clinical Integration

Student Name:	
Roll No:	
Block:	
Department:	
Facilitator:	
Article Title:	

Item	Student Response
SECTION A: EVIDENCE LEVEL	
Type of Evidence (Meta-analysis / Guideline)	
Level of Evidence	
SECTION B: CRITICAL SYNTHESIS	
How does this study compare with existing evidence?	
Are benefits greater than risks?	
SECTION C: COST, ETHICS & IMPLEMENTATION	
Cost-effectiveness discussed?	
Ethical considerations	
Feasibility in local healthcare system	
SECTION D: FINAL JUDGMENT	
Should this evidence change practice?	
Justify your answer	

FACULTY FEEDBACK (ALL YEARS)	
Domain	Remarks
Preparation	
Participation	
Critical Thinking	
Professionalism	
Faculty Name:	
Faculty Signature:	