



AVICENNA
MEDICAL COLLEGE

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ANNUAL RESEARCH REPORT

— **MEDICAL** —

2024–2026

Avicenna Medical College



In affiliation with



AVICENNA
HOSPITAL

Executive Summary

ANNUAL RESEARCH REPORT 2024-2026

The Annual Research Report 2024-2026 reflects Avicenna Medical College's continued commitment to academic excellence, scientific inquiry, evidence-based healthcare, and the development of a sustainable research culture. During the reporting period, the Research Cell supported research planning, ethical compliance, methodological guidance, data analysis, scientific writing, research monitoring, dissemination, and faculty and student engagement.

The documented record demonstrates a growing emphasis on research capacity-building, faculty scholarly exchange, community-responsive healthcare, and academic collaboration. Faculty Research Series sessions addressed clinically relevant topics across medicine, surgery, forensic medicine, neonatal care, dentistry, and translational research, while structured capacity-building activities strengthened research skills in study design, research questions, data analysis, and statistical planning.

Community outreach was also integrated with academic and research objectives. Based on the documented monthly figures in the report, 127 outreach camps and 9,069 patient encounters/clinical consultations were recorded from January 2025 through January 2026. In January 2026, six multidisciplinary camps generated 375 clinical consultations and 56 referrals for further investigation or specialist care.

127

Documented outreach camps
Jan 2025-Jan 2026

9,069

Documented patient encounters /
clinical consultations

56

Referrals in January 2026

7

Documented Faculty Research
Series sessions

4

Faculty Research Capacity-Building
workshop milestone

1

Data Analysis and Research
Resources workshop

1

AI-integrated medical mentorship
pre-conference workshop

1

National academic collaboration

1

International research
collaboration initiative

Research at a Glance

VERIFIED QUANTITATIVE INDICATORS

The following summary presents the quantitative indicators explicitly documented in the Annual Research Report 2024-2026, with emphasis on research capacity-building, faculty scholarly activity, community outreach, and institutional collaboration.

Research Indicator	Achievement / Number
Research Workshops / Training Sessions	At least 6 documented activities
Faculty Research Series Sessions	7 documented sessions
Faculty Research Capacity-Building	4-workshop series milestone documented
Community Outreach Camps	127 documented camps
Patient Encounters / Clinical Consultations	9,069 documented encounters / consultations
National Collaborations	1 documented collaboration
International Collaborations	1 documented collaboration initiative

About the Annual Research Report

Avicenna Medical College is proud to present its **Annual Research Report 2024–2026**, a reflection of the institution's growing commitment to academic excellence, scientific inquiry, and evidence-based healthcare. This report brings together the research achievements, scholarly contributions, and academic initiatives of our faculty members and students, highlighting their collective role in advancing medical knowledge and improving clinical practice.

We proudly acknowledge the efforts of our faculty who contributed through publications in reputable national and international journals, scientific presentations, conference participation, peer review, academic mentorship, and collaborative research. Equally commendable is the active engagement of our students in research projects, poster and oral presentation competitions, scientific forums, workshops, and institutional research activities, bringing recognition and distinction to Avicenna Medical College.

More than a record of accomplishments, this report represents our vision of cultivating a dynamic, ethical, and innovation-driven research culture. Through mentorship, collaboration, and community-oriented scholarship, Avicenna Medical College continues to strengthen its mission of leadership in medical education, research, clinical excellence, and compassionate patient care.

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The Team Behind Research Excellence

Director

Dr. Tahir Jameel

Professor

Pathology

Research coordinators

Sheraz Ahmed

Research coordinator

Research Cell

Aqsa Liaqat

Research coordinator

Research Cell

Biostatistician

Qurat-ul-ain Hanif

Biostatistician

Avicenna Medical College

1. Research Culture and Institutional Overview

Avicenna Medical College is committed to achieving excellence in medical education, clinical services, and research through innovation, teamwork, creativity, and continuous institutional improvement. In accordance with its vision and mission, the College strives to produce competent and research-oriented healthcare professionals who demonstrate critical thinking, ethical practice, social accountability, and a commitment to lifelong learning. The institution promotes innovative research and community-responsive healthcare as essential components of academic and professional development.

To translate this commitment into practice, a dedicated **Research Cell** has been established to strengthen the institutional research culture and provide structured support to undergraduate students, postgraduate trainees, and faculty members. The Research Cell facilitates research-related activities throughout the research process and provides timely guidance in areas such as topic development, proposal preparation, research methodology, ethical compliance, data planning, scientific writing, and research dissemination.

A structured **Research Mentorship Program** has also been introduced, through which undergraduate students are assigned as mentees to faculty mentors. This initiative is designed to promote early involvement in research, strengthen student–faculty collaboration, enhance research-writing skills, and support the development of meaningful research projects under appropriate academic supervision.

Research capacity building remains an important institutional priority. During the reporting period, a series of research workshops and training sessions was conducted for faculty members. These activities were intended to enhance their knowledge and practical skills in research methodology, scientific writing, ethical research conduct, data interpretation, publication processes, and other relevant areas of scholarly practice.

The College provides an enabling technological and academic environment for research. The **e-Library and Electronic Laboratory** are equipped with more than 65 advanced computer systems, high-speed internet connectivity, and research-related software. These facilities are available to undergraduate students, postgraduate trainees, and faculty members for literature searching, data management, statistical analysis, manuscript preparation, and other scholarly activities. Research coordinators are also available to provide guidance and operational support during different stages of the research process.

Access to **Turnitin** is available across ten academic departments through designated institutional representatives. Faculty members and students can obtain similarity-index reports and artificial-intelligence detection reports through the relevant departmental body, supporting originality, responsible academic writing, and compliance with institutional standards. The digital library also provides access to a range of freely available academic journals and scholarly resources to facilitate evidence-based research and scientific writing.

The institution has established ethical standards and policies related to research conduct, authorship, confidentiality, participant protection, academic integrity, and the responsible use of artificial intelligence. These standards are intended to ensure that all research activities are undertaken transparently, ethically, and in accordance with accepted academic and professional principles.

Financial support and research grants are also provided for eligible research activities in accordance with defined institutional criteria and approved guidelines. Further initiatives are being planned to increase student participation, recognize research achievements, strengthen interdisciplinary collaboration, and create additional opportunities for faculty and students to contribute to high-quality and socially relevant medical research.

Research Governance and Support Structure

The Research Cell serves as the central institutional platform for the coordination, facilitation, and oversight of research activities at Avicenna Medical College. It provides structured academic and technical support to undergraduate students, postgraduate trainees, faculty members, and research supervisors, ensuring that research is conducted systematically, ethically, and in accordance with institutional and professional standards.

Its core functions include the preliminary screening of research synopses and proposals for scientific quality, methodological consistency, feasibility, and alignment with approved institutional requirements. The Research Cell also coordinates the submission of eligible proposals to the Institutional Review Board and facilitates communication between investigators, supervisors, departments, and the relevant ethical review bodies.

To promote academic integrity, the Cell supports plagiarism and similarity assessment through authorized institutional systems and provides guidance on responsible authorship, confidentiality, data protection, ethical research conduct, and the appropriate use of artificial intelligence in academic work.

The Research Cell further provides methodological and statistical guidance in areas including study design, sampling strategy, sample-size estimation, development of data-collection tools, preparation of data-analysis plans, selection of appropriate statistical techniques, interpretation of findings, and presentation of results in accordance with accepted scientific standards.

A systematic monitoring mechanism is maintained to document the status and progress of ongoing research projects. This includes tracking proposal submissions, revisions, ethical approvals, data-collection progress, analysis, manuscript preparation, conference presentations, and research completion. Regular coordination with researchers, supervisors, and academic departments supports timely progression and helps identify areas requiring additional guidance.

Through this integrated governance and support framework, the Research Cell strengthens research quality, accountability, transparency, and institutional coordination, while contributing to the development of a sustainable and ethically responsible research environment.

Research Highlights at a Glance

The **Research Highlights at a Glance** section presents a concise overview of the key scholarly activities, capacity-building initiatives, and research achievements undertaken during the reporting period. It reflects the institution's continued efforts to promote scientific inquiry, strengthen faculty and student engagement, encourage interdisciplinary collaboration, and translate research into meaningful academic and healthcare outcomes.

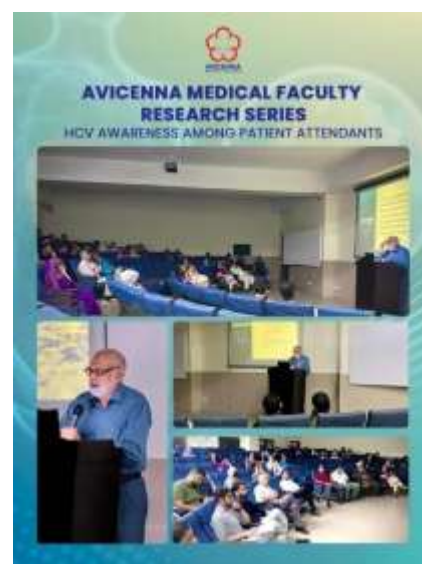
Faculty Research Series

The **Faculty Research Series** provided a structured platform for faculty members to present their ongoing and completed research, exchange scientific perspectives, and engage in focused academic discussions. Each session highlighted a relevant healthcare issue, encouraged critical appraisal of research methods and findings, and supported the development of a collaborative, evidence-based research culture across the institution. Brief details and photographs of the sessions conducted during the reporting period are presented below.



HCV Awareness Among Patient Attendants

As part of the **Avicenna Medical Faculty Research Series**, Prof. Dr. Raana Akhtar conducted an engaging session on *“Assessment of Knowledge about HCV among Attendants of Patients Visiting Medical Wards of a Tertiary Care Hospital, Lahore”* on 26 September 2025. The session highlighted key knowledge gaps related to HCV transmission, prevention, screening, and treatment, while encouraging meaningful academic discussion among faculty members. This initiative reflected the College’s commitment to promoting community-focused research, scientific dialogue, and evidence-based healthcare.



Serum NGAL Levels in Systemic Lupus Erythematosus

As part of the **Avicenna Medical Faculty Research Series**, Prof. Dr. Naim Ashraf conducted an interactive session on 17 October 2025 titled *“Assessment of Serum Neutrophil Gelatinase-Associated Lipocalin Levels in Patients with Systemic Lupus Erythematosus, with and without Lupus Nephritis.”* The session explored the clinical and research significance of NGAL in evaluating renal involvement among patients with SLE and encouraged meaningful academic discussion on biomarkers, early assessment, and evidence-based clinical practice.

Neonatal Hypoglycemia: Frequency and Clinical Manifestations

As part of the **Avicenna Medical Faculty Research Series**, Dr. Husnul Hayat conducted an interactive session on 14 November 2025 on the frequency and clinical manifestations of hypoglycemia among neonates during the first 24 hours of life. The session highlighted the importance of early recognition, timely screening, and appropriate clinical management of neonatal hypoglycemia, while promoting evidence-based discussion and collaborative learning among faculty members.



Biochemical Markers in Periodontitis

As part of the Avicenna Medical Faculty Research Series, Dr. Yusra Leghari conducted an interactive session on 28 November 2025 titled “*Comparative Evaluation of Magnesium, Zinc, Catalase, Superoxide Dismutase, and Nitric Oxide in Patients with Periodontitis.*” The session explored the role of trace elements, antioxidant enzymes, and oxidative stress markers in periodontal disease, promoting scientific discussion on their potential relevance in disease assessment and evidence-based clinical practice.



Neuroprotective Role of *Hericium erinaceus* in Experimental Stroke

As part of the **Avicenna Medical Faculty Research Series**, Dr. Beenish Sohail conducted an interactive session on 12 December 2025 exploring the role of *Hericium erinaceus* in ischemia–reperfusion injury using a rat model of middle cerebral artery occlusion. The session highlighted the significance of experimental research in investigating potential neuroprotective interventions for stroke and encouraged scholarly discussion on translational neuroscience and evidence-based therapeutic innovation.





Non-Traumatic Causes of Death in Police Custody

As part of the **Avicenna Medical Faculty Research Series**, Dr. Zainab Parveen conducted an interactive session on 9 January 2026 titled *“Death in Police Custody—Non-Traumatic Causes.”* The session explored the forensic evaluation of natural and non-traumatic custodial deaths, emphasizing accurate cause-of-death determination, systematic medico-legal investigation, and evidence-based interpretation of findings. The discussion enhanced faculty understanding of this sensitive medico-legal issue while promoting scholarly dialogue in forensic medicine.



Comparative Outcomes of VP Shunt Placement Techniques

As part of the **Avicenna Medical Faculty Research Series**, Dr. Zubair Mahmood conducted an interactive session on 13 February 2026 titled “*Comparison of Surgical Outcomes of Ventriculoperitoneal Shunt at Choudhary’s Point versus Keen’s Point.*” The session explored the clinical and surgical considerations associated with both approaches, encouraging evidence-based discussion on operative outcomes, complication profiles, and the optimization of neurosurgical practice.



Introduction to Data Analysis and Research Resources

A comprehensive workshop on Introduction to Data Analysis and Research Journals was conducted on 29 September 2025 by Ms. Najma Abdul Hakim, Librarian, and Ms. Qurrat-ul-Ain, Biostatistician. The session introduced participants to fundamental data-analysis concepts and provided a guided tour of the e-Library, electronic journals, and digital research resources available at Avicenna Medical and Dental College, enabling faculty and students to access credible literature and utilize institutional resources more effectively.

Faculty Research Capacity-Building Series

Under the leadership of **Dr. Gulfreen Waheed, Principal, Avicenna Medical College**, a structured Faculty Research Capacity-Building Series was initiated to strengthen the research knowledge and practical skills of faculty members. The series featured focused workshops on **Introduction to Research, Medical Study Designs, Sample Size Calculation and Sampling Techniques, SPSS-based Data Analysis, and Selection of Appropriate Statistical Tests**. This initiative aimed to enhance research competence, promote methodological accuracy, and support faculty in conducting high-quality, evidence-based medical research.

Evidence to Impact: Healthcare Research Horizons

The **Faculty Research Capacity-Building Series** commenced on **18 December 2025** with its inaugural workshop, “*Evidence to Impact: Healthcare Research Horizons*,” under the course **Research Writing for Health Professionals**. Facilitated by **Prof. Dr. Gulfreen Waheed**, with **Mr. Kashif Siddiqui** as co-facilitator and **Dr. Amna Haroon** as course coordinator, the session



introduced faculty members to the foundations of healthcare research and highlighted the transformation of scientific evidence into meaningful clinical and community impact.



From Research Ideas to Focused Questions

The second workshop of the **Faculty Research Capacity-Building Series**, held on **14 January 2026**, focused on transforming broad research interests into well-defined and scientifically relevant studies. Facilitated by **Prof. Dr. Gulfreen Waheed**, with **Mr. Kashif Siddiqui** as co-facilitator and **Dr. Amna Haroon** as course coordinator, the hands-on session guided faculty members through topic selection, problem identification, formulation of research questions and hypotheses, and development of clear research objectives.



Research Methodology: Developing a Data Analysis Plan

The fourth workshop of the **Faculty Research Capacity-Building Series**, held on **15 April 2026**, focused on the development of a structured and scientifically appropriate **data analysis plan**. Facilitated by **Prof. Dr. Gulfreen Waheed**, with **Mr. Sheraz Ahmed** as co-facilitator, the hands-on session guided faculty members in organizing research variables, planning data analysis, and aligning appropriate analytical methods with study objectives to ensure accurate and meaningful interpretation of research findings.



Pre-Conference Workshop on AI-Integrated Medical Mentorship

As part of the **International Conference on Health Professionals' Education, Research and Entrepreneurship**, a pre-conference workshop titled *"Mentorship Reimagined: Integrating AI into Medical Education"* was conducted on **13 November 2025**. The session was facilitated by **Prof. Dr. Gulfreen Waheed** and **Prof. Dr. Aneela Zareen** and explored the emerging role of artificial intelligence in strengthening academic mentorship, enhancing faculty–student engagement, and supporting innovative teaching and learning practices. The workshop reflected Avicenna Medical College's commitment to educational innovation, technology-enabled mentorship, and the advancement of contemporary health-professions education.



Community Outreach and Health Screening Camps

Avicenna Medical College remained actively committed to community-responsive healthcare through a series of multidisciplinary outreach and health screening camps conducted during the reporting period. These initiatives extended essential preventive and clinical services to underserved communities, including health assessments, medical consultations, awareness sessions, counselling, and referral support for individuals requiring further evaluation or specialized care.

In addition to improving access to healthcare, the camps provided faculty members, postgraduate trainees, and students with valuable opportunities to engage directly with diverse communities, identify prevailing health concerns, and apply evidence-based knowledge in real-world settings. Where appropriate, data generated through these outreach activities may also support approved academic and research projects undertaken by students, trainees, and faculty members, subject to

formal institutional and ethical approvals, informed consent requirements, confidentiality safeguards, and responsible data-management practices.

By integrating healthcare delivery with structured academic inquiry, these initiatives contribute to the identification of community health priorities, development of locally relevant research questions, and generation of evidence that may inform preventive strategies and future interventions. Through this approach, the institution continues to strengthen its commitment to research, experiential learning, social responsibility, preventive healthcare, and community wellbeing.

January 2026 Community Outreach Activities

During January 2026, Avicenna Medical College and Hospital conducted **six multidisciplinary outreach and health screening camps** across four nearby villages and the Elite Police Centre. Teams from Medicine, Gynaecology, Dentistry, Physiotherapy, and Nutrition delivered **375 clinical consultations**, preventive health education, counselling, and referral support, with **56 individuals referred** for further investigations or specialist care. The camps also generated community-based health information that may support approved research projects undertaken by students, postgraduate trainees, and faculty members, subject to formal institutional and ethical approvals, informed consent, confidentiality, and responsible data-management requirements.



July–December 2025

During the reporting period, Avicenna Medical College and Hospital conducted a structured series of multidisciplinary medical and dental outreach camps across villages, schools, residential communities, welfare organizations, industrial sites, and institutional settings. Teams from Paediatrics, Medicine, Obstetrics and Gynaecology, Dentistry, Nutrition, and Physiotherapy provided health screening, clinical consultations, counselling, medicines, preventive education, and referral support for individuals requiring further investigations or specialist care.

The programme also promoted community-based learning and research engagement among students, postgraduate trainees, and faculty members. Subject to formal institutional and ethical approvals, informed consent, confidentiality, and appropriate data-management procedures, de-identified camp data may support community health assessments, clinical audits, epidemiological studies, and evaluation of preventive interventions. Through these activities, the College strengthened its commitment to accessible healthcare, evidence-based practice, experiential learning, and community wellbeing.





Monthly Patient Statistics — July to December 2025

Month	Complete Records	Camp Documented Patient Encounters
July 2025	8	648
August 2025	8	607
September 2025	10	663
October 2025	12	713
November 2025	11	800

Month	Complete Records	Camp Documented Patient Encounters
December 2025	12	820
Total	61	4,251

January–June 2025

During the first six months of 2025, Avicenna Medical College and Hospital conducted a structured series of multidisciplinary medical and dental outreach camps across rural villages, residential communities, welfare organizations, and institutional settings. Teams from **Paediatrics, Medicine, Obstetrics and Gynaecology, Dentistry, Nutrition, and Physiotherapy** provided clinical consultations, preventive screening, counselling, medicines, health education, and referral support for individuals requiring specialist assessment, laboratory investigations, or radiological evaluation.

The programme strengthened access to essential healthcare while creating valuable opportunities for community-based learning and research engagement. Subject to formal institutional and ethical approvals, informed consent, confidentiality safeguards, and responsible data management, de-identified information generated through these activities may support research projects, clinical audits, community health assessments, and service evaluations undertaken by undergraduate students, postgraduate trainees, and faculty members. Through this integrated approach, the College continued to advance preventive healthcare, evidence-based practice, social responsibility, and community wellbeing.





Patient Statistics — January to June 2025

Month	Documented Camps	Patient Encounters
January 2025	11	944
February 2025	11	815
March 2025	11	771
April 2025	10	725
May 2025	5	379

Month	Documented Camps Patient Encounters	
June 2025	12	809
Total	60	4,443

Research Achievements, Recognition and Institutional Support

Avicenna Medical College continues to foster a culture of research excellence by recognizing the scholarly achievements of its students and faculty and encouraging active participation in national and international academic forums. Awards, scientific presentations, conference participation, and institutional representation reflect the growing engagement of the College community in research and academic scholarship. These efforts are reinforced through research grants, travel and conference support, capacity-building initiatives, digital resources, specialized research software, and operational assistance provided through the Research Cell. Collectively, these measures strengthen research capacity, promote academic collaboration, and create an enabling environment for high-quality and impactful scholarly work.

Institutional Research Funding and Resource Support

Avicenna Medical College has established a dedicated institutional framework to support research and scholarly development across faculty and student communities. The support encompasses faculty-led research activities, student research grants, academic travel, participation in national and international conferences, research training, scientific events, and recognition of academic achievements.

The institution also facilitates access to essential research resources, including specialized software, digital library services, plagiarism-screening systems, and administrative support through the Research Cell. By providing financial, technical, and academic assistance, the College aims to strengthen research capacity, promote meaningful scientific collaboration, and enable students, postgraduate trainees, and faculty members to undertake ethical, methodologically sound, and impactful research.

Research Awards and Academic Recognition

Collaborations

National Collaboration

Avicenna Medical and Dental College entered into a national academic collaboration with **Fatima Jinnah Medical University** to launch the **Certification in Health Professions Education**.

This partnership reflects a shared commitment to strengthening faculty development, advancing contemporary teaching practices, and enhancing professional competence in health-professions education. The programme was announced with applications open until **15 June 2026**, while the first batch was scheduled to commence on **1 July 2026**.

Through this initiative, both institutions aim to promote educational excellence, academic capacity-building, and collaborative advancement in medical and dental education.



Avicenna Advances International Research Collaboration with the Philippines

Avicenna Medical and Dental College has initiated discussions to establish international research collaborations with leading medical universities in the Philippines, with the aim of promoting high-quality, globally relevant healthcare research. During a high-level meeting held on **8 October 2025**, **His Excellency Mr. Emanuel R. Fernandez, Ambassador of the Philippines**; **Vice Consul Mr. Rain Mendoza**; **Col. Wajahat Bukhari**; and **Honorary Consul Mr. Fahdel Sheikh** explored potential areas of academic and research cooperation.

The proposed collaborations are intended to strengthen scientific exchange, support joint research initiatives, encourage institutional networking, and promote innovation in medical and dental education and healthcare research. This engagement represents an important step toward expanding Avicenna's international academic partnerships and contributing to research with meaningful regional and global impact.

