प्रारंभ

AN OFFICIAL NEWSLETTER OF GMERS MEDICAL COLLEGE, GANDHINAGAR

2025: Issue-2 (April - June)

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Welcome to GMERS Medical College, Gandhinagar

GMERS Medical College, Gandhinagar is an academic institution of repute under The Gujarat Medical Education and Research Society of Department of Health and Family Welfare, Government of Gujarat and located in the city of Gandhinagar, Capital of Gujarat State in Western India. It is one of the fastest growing Medical College of Gujarat. The institute strives to be among the top medical colleges in India in the spheres of medical education, research and health care services.

Dr. Ankur Zalawadia
Dean
GMERS Medical College, Gandhinagar

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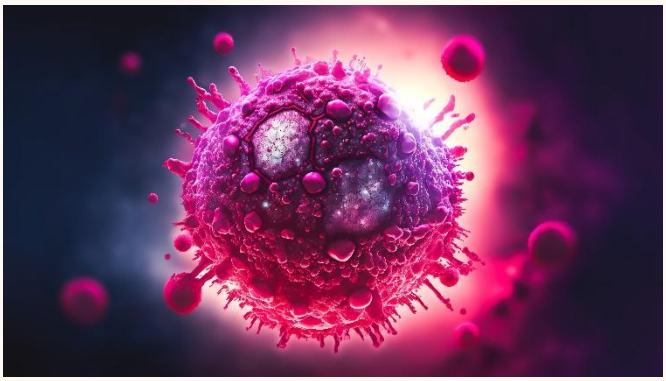

The U.S. Food and Drug Administration's approval of lenacapavir (Yeztugo, Gilead Sciences) on June 18, 2025, as a twice-yearly injectable for HIV pre-exposure prophylaxis (PrEP) represents a groundbreaking milestone in HIV/AIDS management.[1] As a first-in-class HIV-1 capsid inhibitor, lenacapavir offers unmatched efficacy and convenience, with potential to redefine global HIV prevention and treatment strategies.[2,3] For medical students and healthcare professionals, this innovation highlights the synergy of advanced pharmacology, clinical research, and public health advocacy. This editorial delves into the pharmacology of lenacapavir, its clinical efficacy, therapeutic advantages, and the challenges ahead, emphasizing its significance in medical education and practice.

Pharmacology of Lenacapavir

A Novel Mechanism of Action: Unique Target – HIV-1 Capsid Protein: Lenacapavir is a pioneering antiretroviral that targets the HIV-1 capsid protein, a critical component of the viral core that encases its genetic material.[2,8] Unlike traditional antiretro-virals, which primarily inhibit reverse transcriptase, integrase, or protease, lenacapavir disrupts multiple stages of the HIV lifecycle: capsid assembly, nuclear entry, and virion maturation.[8] By binding to the capsid's N-terminal domain, it destabilizes the capsid structure, preventing viral uncoating and integration into host DNA.[8] This novel mechanism eliminates cross-resistance with existing drug classes, making lenacapavir effective against multidrug-resistant HIV strains.[6,8] Its unique action underscores its value in both treatment and prevention, offering a versatile tool in HIV management.[6]

Pharmacokinetics: Ultra-Long Half-Life Enables Twice-Yearly Dosing: Lenacapavir's pharmacokinetic profile is a cornerstone of its revolutionary dosing schedule. Administered subcutaneously, it forms a depot at the injection site, allowing slow, sustained release into the bloodstream.[8] Peak plasma concentrations are achieved approximately 84 days post-injection, with a terminal half-life of 10–12 weeks, supporting twice-yearly dosing.[2,8] This is a significant improvement over daily oral PrEP options like combination of emtricitabine + tenofovir disoproxil fumarate or monthly injectables cabotegravir.[1,5] The drug's high potency, with an in vitro EC50 in the picomolar range, ensures effective viral suppression with minimal dosing frequency.[8]

***Pharmacodynamics: Potent Inhibition Across HIV Clades*:** Lenacapavir exhibits broad-spectrum activity against diverse HIV-1 clades, including subtypes A, B, C, and circulating recombinant forms prevalent in high-burden regions like sub-Saharan Africa.[2,8] Its picomolar potency allows it to maintain therapeutic concentrations for months, inhibiting viral replication even in the presence of resistance mutations to other antiretroviral classes. In preclinical studies, lenacapavir demonstrated synergistic effects with other antiretrovirals, enhancing its utility in combination regimens.[8] This pharmacodynamic profile positions lenacapavir as a game-changer for both treatment-experienced patients and PrEP candidates in diverse epidemiological settings.[2,6]

Clinical Efficacy: Evidence from Pivotal Trials

***Treatment of Multidrug-Resistant HIV (CAPELLA Trial)*:** The CAPELLA trial established lenacapavir's efficacy in treating multidrug-resistant (MDR) HIV-1 infection. In this Phase II/III study, 72 heavily treatment-experienced adults with MDR HIV received subcutaneous lenacapavir every 6 months alongside an optimized background regimen. At week 26, 88% of participants achieved viral suppression (HIV-1 RNA <50 copies/mL), with significant CD4 count improvements.[4] The trial highlighted lenacapavir's ability to overcome resistance barriers, offering hope for patients with limited treatment options. Its long-acting nature also reduced treatment burden, a critical factor for this population.[4]

***PrEP Efficacy (PURPOSE-1 Trial)*:** The PURPOSE-1 trial, conducted among 5,345 cisgender women aged 16–26 in South Africa and Uganda, demonstrated lenacapavir's unparalleled efficacy as PrEP. The trial reported zero HIV infections in the lenacapavir arm, achieving 100% efficacy

compared to a background incidence of 2.41 per 100 person-years and outperforming daily oral Truvada ($p<0.0001$). Similarly, PURPOSE-2, involving 3,265 diverse participants, reported a 96% risk reduction compared to Truvada, with only two infections in the lenacapavir group (0.10 per 100 person-years).[2] These results underscore lenacapavir's potential to transform HIV prevention, particularly in high-risk populations.[2,3,5]

Therapeutic Advantages Over Existing Regimens

***Superior Adherence*:** Lenacapavir's twice-yearly dosing addresses a major barrier to PrEP: adherence. Daily oral regimens like Truvada and Descovy often see suboptimal adherence due to pill burden, stigma, or logistical challenges. In PURPOSE-1, adherence to oral PrEP was low, whereas lenacapavir's infrequent dosing ensured consistent protection.[2,5] This is particularly impactful for populations like young women in sub-Saharan Africa, where social and structural barriers hinder daily medication use.[3,5]

***Broad-Spectrum Activity*:** Lenacapavir's lack of cross-resistance and activity across HIV-1 subtypes make it a versatile option for both treatment and prevention.[6,8] Its ability to inhibit MDR strains in CAPELLA and prevent infections across diverse populations in PURPOSE trials highlights its broad applicability.[2,4] This is critical in global health contexts where viral diversity and resistance patterns vary widely.[8]

***Safety Profile*:** Lenacapavir's safety profile is favorable, with most adverse events being mild. In PURPOSE-1, injection-site reactions (pain, 31%; swelling, 31%; erythema, 25%) were common but resolved quickly, with only 0.2% discontinuation rates. In PURPOSE-2, discontinuation due to adverse events was 1.2%.[2] No serious drug-related adverse events were reported, reinforcing lenacapavir's tolerability.[2,4] However, long-term safety data are still emerging, necessitating ongoing monitoring.[8]

Challenges and Future Directions

***Cost and Accessibility*:** Despite its promise, lenacapavir's high cost—$28,218 annually in the U.S.—poses a significant barrier.[1,7] While comparable to cabotegravir ($24,000/year), it far exceeds generic oral PrEP ($1/dose).[1]. Gilead's patient assistance programs and voluntary licensing agreements with generic manufacturers aim to improve access in 120 high-incidence, low-income countries. However, middle-income countries like Brazil are excluded, and generic production may take years. Cost-effectiveness analyses suggest lenacapavir could be produced for $25–$40 annually, urging advocacy for affordable pricing. Political challenges, such as potential cuts to PEPFAR, further complicate global rollout.[5,7]

***Ongoing Research*:** Ongoing trials are exploring lenacapavir's role in additional populations, such as people who inject drugs and cisgender women in the USA.[5] Its potential synergy with broadly neutralizing antibodies and implications for HIV vaccine development are also under investigation.[6,8]

Conclusion

Lenacapavir's approval as a twice-yearly injectable marks a new era in HIV prevention and treatment, driven by its innovative pharmacology, exceptional efficacy, and patient-friendly dosing. Its ability to address multidrug resistance and overcome adherence barriers positions it as a cornerstone of global HIV strategies. However, ensuring equitable access remains a critical challenge.

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Dr. Amit M Shah
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Department of Pharmacology

Research Methodology & Good Clinical Practices Workshop: A Step Towards Excellence in Medical Research

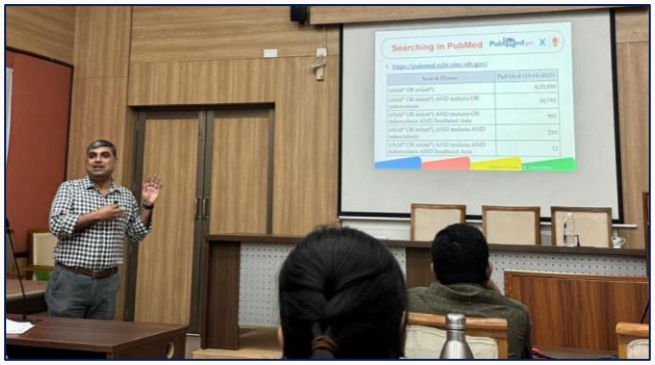
On April 16 and 17, 2025, GMERS Medical College and General Hospital, Gandhinagar, under the aegis of Institutional Ethics Committee (IEC) hosted a highly impactful two-day "Research Methodology & Good Clinical Practices (GCP) Workshop" for its first-year post-graduate students pursuing MD, MS, and DNB programs. Held at the Conference Room of the college's auditorium, this workshop aimed to equip budding medical researchers with essential skills for crafting robust dissertation proposals, fostering a strong foundation in clinical research and ethical practices. The event, organized by the institution, show active participation from post-graduate students and selected faculty members, marking a significant step in enhancing the research scope of the medical community at our institute.

The workshop was designed to guide students in formulating research questions, designing studies, and adhering to ethical standards in biomedical research. With a well-structured schedule spanning from 8:30 AM to 5:00 PM each day, the event featured a blend of theoretical lectures, hands-on training sessions, and interactive discussions led by distinguished faculty members from various departments. The workshop was a testament to GMERS Medical College's commitment to fostering a research-oriented culture, aligning with its mission to produce skilled healthcare professionals who contribute meaningfully to medical knowledge and practice.

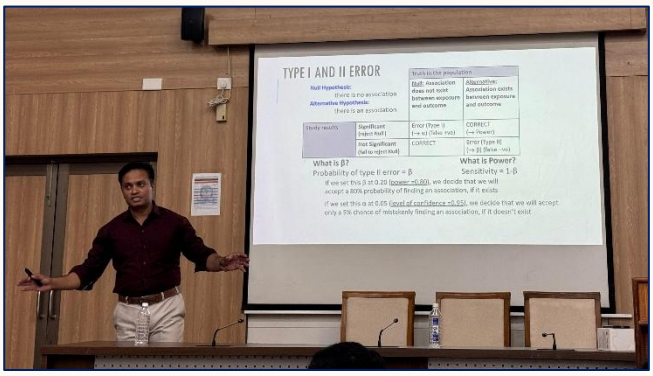
Day 1: Laying the Foundation for Research Excellence

The first day of the workshop commenced with a warm inauguration ceremony at 9:30 AM, led by Dr. Ankur Zalawadia and Dr. Meeta Nanavati. Their opening remarks set the tone for the event, emphasizing the importance of research methodology in shaping evidence-based medical practice and encouraging students to approach their dissertation work with rigor and curiosity. The inaugural session was followed by a series of insightful lectures and practical sessions that provided a comprehensive overview of the research process.

The first session was taken by Dr. Darshan J. Dave from the Department of Pharmacology, titled "Clinical Research - Dissertation Topic: Challenges and Opportunities." He highlighted the critical role of selecting a feasible yet impactful dissertation topic, discussing common mistakes done and how to avoid them. His session encouraged students to think creatively about their research projects by highlighting the significance of aligning research subjects with clinical relevance and practical usefulness. Following this, he continued addressing "Formulation of Research Question, Hypothesis, and Study Objectives." This session was crucial in helping students understand how to frame precise and answerable research questions that form the backbone of any scientific study. Dr. Dave's engaging presentation included real-world examples from medical research, illustrating how well-defined hypotheses and objectives drive the success of a study.



Dr. Amit M. Shah then delivered a lecture on "Literature Search & Review," guiding students on the art of conducting thorough literature reviews to establish the context and justification for their research. He highlighted the importance of using reliable databases and critical assessment methods to make sure that their dissertation proposals were built on a strong framework. This session transitioned smoothly into a hands-on training exercise led by Dr. Darshan J. Dave and Dr. Amit M. Shah, where students practiced formulating research questions and conducting literature searches. The interactive structure allowed participants put theoretical ideas into practice right away, which helped them comprehend the research process better.



After a refreshing lunch break, Dr. Nilesh Thakor delivered a session on "Study Types and Study Designs," providing an in-depth exploration of various study design including observational and experimental designs. His clear explanations helped understand complex concepts, enabling students to select appropriate study designs for their research projects. Dr. Pratik Shah followed with a session on "Study Participants: Inclusion & Exclusion Criteria," emphasizing the importance of defining clear criteria to ensure the validity and generalizability of study findings.

The day concluded with Dr. Nilesh Thakor leading another hands-on training session on "Selection of Study Design: Sample Size Calculation." This hands-on activity was very beneficial since it gave students the capacity to determine suitable sample sizes, which is critical for ensuring statistical power and reliability in research studies. Dr. Thakor's guidance and use of case studies made this complex topic accessible and engaging.

Day 2: Ethics and Responsibilities in Research

The second day of the workshop focused heavily on the ethical dimensions of biomedical research, ensuring that participants understood the importance of conducting studies with integrity and accountability. Starting the day with a breakfast session, after which Dr. Darshan J. Dave delivered a session on "Ethics in Biomedical Research." He discussed key ethical principles, such as autonomy, justice, beneficence, and non-malefiecence, and highlighted their application in clinical research. This session was particularly relevant for post-graduate students, as it mentioned the importance of ethical responsibilities they must uphold in their dissertation work.

Dr. Atul Shrivastava followed with a session on the "Roles and Responsibilities of Ethics Committee." He provided a detailed overview of the Institutional Ethics Committee's (IEC) functions, emphasizing its role in safeguarding participant rights and ensuring compliance with regulatory guidelines. His session clarified the processes involved in obtaining ethical approval, a critical step for all research projects at GMERS Medical College and General Hospital.

The final lecture of the morning was delivered by Dr. Pratik Shah on the "Roles and Responsibilities of Investigator." Dr. Pratik outlined the duties of principal investigators, including protocol adherence, data integrity, and participant safety. His practical insights, drawn from years of experience, resonated with students, who appreciated the real-world context he provided.

Dr. Amit M. Shah's session on "Informed Consent Process" covered tailoring consent processes for different age groups: adults (direct consent), minors (parental consent with assent), and vulnerable populations (simplified explanations). Informed consent ensures autonomy, protects rights, and builds trust in research.

After a lunch break, Dr. Apexa Shukla's session on "How to Cite a Reference?" explored referencing styles like APA, MLA, Vancouver, and Chicago. Helping the students understand the importance of proper citation which ensures academic integrity, credits original authors, and supports credible, reproducible research. Dr. Darshan J. Dave's followed with a session on "Elements of Protocol" covering key components like objectives, methodology, participant criteria, and ethical considerations in a protocol. A well-structured protocol ensures clarity, reproducibility, and ethical compliance in research, guiding investigators and ensuring studies meet scientific and regulatory standards.

These sessions likely focused on applying ethical principles and investigator responsibilities to practical scenarios, ensuring that students left the workshop well-prepared to navigate the ethical and procedural aspects of their research.

The faculty speakers' knowledge and the organising team's hard work made the workshop a huge success. From developing research ideas to addressing ethical issues, the event gave first-year post-graduate students a strong foundation for planning and carrying out excellent research. The hands-on training sessions were particularly praised for their interactive approach, allowing students to apply theoretical knowledge in practical settings.

The workshop's success demonstrates GMERS Medical College's dedication to encouraging a research-driven culture among its staff and students. By equipping post-graduate students with the tools and knowledge needed to excel in their dissertation projects, the institution is paving the way for meaningful contributions to medical science. The occasion also emphasised the value of lifelong learning and professional growth in the dynamic healthcare industry.

CME on Challenges and Way Out for Community Involvement in Pharmacovigilance

CME on Challenges and Way Out for Community Involvement in Pharmacovigilance was organized by ADR Monitoring Center (AMC) and Department of Pharmacology on May 16, 2025. The objective of the Continuing Medical Education (CME) training was to explore key aspects of pharmacovigilance, focusing on the challenges clinicians face and offering practical solutions. The CME also aimed to update participants on the latest advancements in Adverse Drug Reaction (ADR) reporting, common obstacles in the reporting process, and effective strategies to improve community involvement in pharmacovigilance initiatives.

The session commenced with a pre-test, after which the first segment highlighted the ongoing ADR reporting activities at GMERS Medical College, Gandhinagar (AMC), where the hospital achieved 5th place in ADR reporting across India. This success was attributed to the continuous efforts of the hospital staff and the AMC center. The goal of the session was to sensitize new intern doctors to the importance of ADR reporting and the crucial role they can play in it.

Dr. Darshan J. Dave, Professor and Head of the Pharmacology Department and Coordinator at AMC, led the second session, which emphasized the importance of pharmacovigilance. Dr. Dave inspired the interns with real-life examples, illustrating that while ADR monitoring may not provide immediate rewards, it significantly benefits society in the long term. His presentation received a positive response from the audience, including a round of applause. The session concluded with Dr. Amit Shah, Professor (HG) of Pharmacology, who conducted a highly engaging and informative session on how to fill the ADR reporting form. This practical session ended with a post-test and a lunch break.

The post-lunch sessions primarily targeted the hospital staff. Dr. Darshan J. Dave opened the session by introducing the pharmacovigilance program at AMC and providing an overview of the current status of ADR reporting at the center. Dr. Jigar Modi, Assistant Professor of Pharmacology and Deputy Coordinator of AMC, gave a detailed presentation on the status of ADR reporting at the hospital. Dr. Gunjan Upadhyay, Professor and Head of the Respiratory Medicine Department, followed with a session on the various barriers to ADR reporting, including human psychology, lack of technology, and insufficient awareness.

In the next session, Dr. Vaidehi Gor, Senior Resident in General Medicine, discussed the issue of underreporting

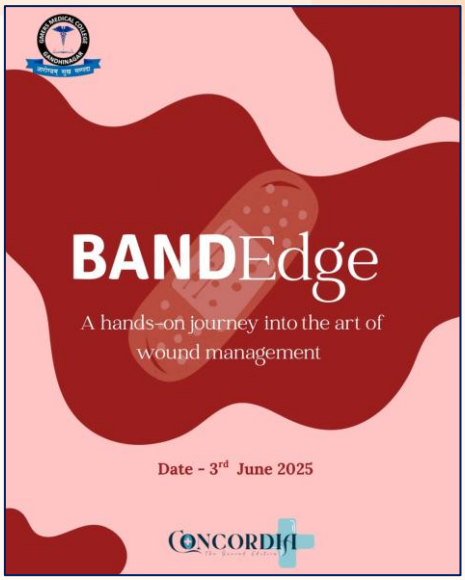
and proposed several solutions. These included increasing education and awareness, improving technology and training, enhancing communication, and implementing policy and regulatory changes. The session focused on the clinical perspective of overcoming underreporting. Dr. Amit Shah wrapped up the discussion by providing a pharmacologist's perspective on the challenges and solutions to ADR reporting. He covered the need for involving special populations and standardizing data collection to improve the process.

The CME was widely regarded as a success, receiving positive feedback and valuable suggestions from the participants. The event not only contributed to enhancing the knowledge and skills of clinicians and hospital staff but also reinforced the importance of ADR reporting in the overall healthcare system. Looking ahead, the team is committed to continuing efforts to raise awareness about ADR reporting and the Pharmacovigilance Programme of India (PvPI). This will be achieved through ongoing collaboration with the National Coordinating Centre and the Indian Pharmacopoeia Commission, Ghaziabad.

Concordia 2025: Empowering Future Physicians Through Hands-On Learning

In a remarkable display of initiative and academic enthusiasm, the MBBS students of GMERS Medical College, Gandhinagar, organized *Concordia 2025*, a series of immersive, hands-on training workshops held from June 3 to June 5, 2025. This student-led initiative was designed to bridge the gap between theoretical knowledge and practical application, fostering clinical proficiency, critical thinking, and a passion for lifelong learning among undergraduate medical students. *Concordia 2025* featured four meticulously crafted workshops—*Bandage*, *Vitalsync*, *Analytica*, and *Theorem*—each tailored to equip participants with essential skills in clinical practice and research. By providing hands-on training and expert guidance, these workshops aimed to enhance students' readiness for real-world medical challenges, complementing the standard MBBS curriculum and inspiring a new generation of skilled, compassionate physicians.

Bandage: A Hands-On Journey into the Art of Wound Management



On June 3, 2025, GMERS Medical College and Hospital, Gandhinagar, hosted a comprehensive half-day workshop titled *Bandage*, focusing on bandaging and suturing techniques. Led by distinguished faculty from the Department of Surgery, this workshop aimed to enhance participants' expertise in wound management, emphasizing practical skills to ensure optimal patient outcomes in diverse clinical scenarios.

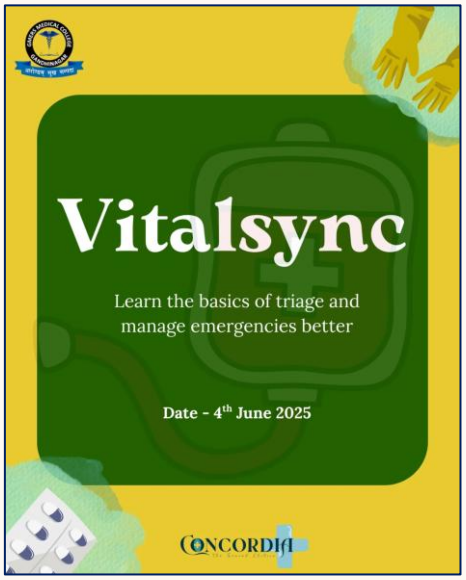
The session commenced with an engaging lecture, *"Do Suture as a Tailor or a Sailor"*, delivered by Dr. Hiren Parmar, Professor (HG) of Surgery. Dr. Parmar elucidated the fundamentals of suturing, introducing students to various suture techniques, including simple, interrupted, and mattress sutures. He discussed their specific applications, advantages, and limitations, supplemented by high-quality instructional videos that vividly demonstrated each method. This visual aid helped students grasp the nuances of suturing with greater clarity.

The second session, *"The Art of Handling Dirt"*, was led by Dr. Pratik Shah, Professor (HG) of Surgery. Dr. Shah provided detailed guidance on wound cleaning and bandage application, emphasizing the importance of meticulous wound preparation to prevent infections and promote healing. His session covered a range of bandaging techniques tailored to different wound types and locations. To make the learning experience interactive and enjoyable, Dr. Shah concluded with a fun, knowledge-based game, rewarding winners with chocolates, which added a lighthearted touch to the rigorous academic session.

The highlight of the workshop was the hands-on training segment, where students were provided with suture pads, suturing materials, bandages, and gloves. Under the close supervision of multiple faculty members from the Surgery Department, participants practiced suturing techniques on suture pads and applied bandages on specialized mannequins designed to simulate real-world wound care scenarios. This practical exposure was both enriching and empowering, allowing students to refine their techniques and build confidence in their abilities.

Feedback from participants highlighted the workshop's success in making wound management approachable and engaging. Students left with a deeper understanding of how precise bandaging and suturing techniques contribute to improved healing outcomes, reduced complications, and enhanced patient care. The combination of expert instruction, interactive elements, and hands-on practice made *Bandage* an invaluable learning experience, equipping students with skills essential for their future clinical practice.

Vitalsync: Mastering Triage and Emergency Management



On June 4, 2025, GMERS Medical College and Hospital, Gandhinagar, hosted *Vitalsync*, a dynamic workshop dedicated to triage and initial trauma management. This intensive session was designed to sharpen students' emergency response skills, preparing them to make critical decisions under pressure in high-stakes medical situations.

The workshop opened with an interactive lecture, *"Initial Trauma Assessment"*, delivered by Dr. Sanjay Shah, Senior Consultant of Emergency Medicine. Dr. Sanjay

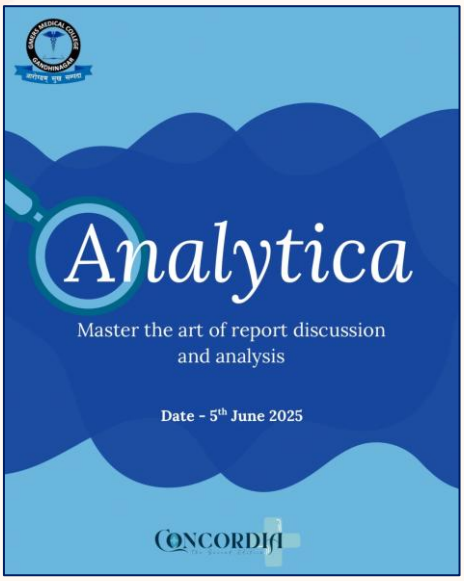
emphasized the principles of triage, teaching students how to prioritize patients based on the severity of their conditions. His session focused on rapid decision-making and efficient trauma management, equipping students with strategies to act swiftly and effectively to save lives.

Subsequent sessions featured specialized topics critical to emergency care. Dr. Tarlika Doctor, Professor and Head of Department of Emergency Medicine, delivered an in-depth presentation on airway management techniques, including bag-valve-mask ventilation and endotracheal intubation. Her session provided practical insights into maintaining airway patency in emergencies. Dr. Ayushi Parikh, followed with an informative discussion on cardiopulmonary resuscitation (CPR), detailing the steps for effective CPR delivery in both adult and pediatric patients. Dr. Dhrupad Rathod conducted a session on intravenous (IV) line insertion, highlighting techniques to ensure accurate and safe vascular access.

The afternoon hands-on session was a cornerstone of the workshop, with students divided into four groups to maximize engagement. Under the guidance of Dr. Ayushi, participants practiced CPR on adult and pediatric mannequins, gaining proficiency in chest compression and ventilation techniques. They also learned to operate automated external defibrillators (AEDs), a critical skill in managing cardiac emergencies. Dr. Sanjay and Dr. Dhrupad led an interactive session on spine immobilization, teaching students how to stabilize patients with suspected spinal injuries. Dr. Tarlika Doctor demonstrated airway management procedures on specialized mannequins provided by the Emergency Medicine Department, while Dr. Patel guided students through shock management and central/peripheral line insertion techniques.

The hands-on format, coupled with expert mentorship, fostered a dynamic learning environment. Students reported that the workshop was both educational and enjoyable, leaving them with practical skills and newfound confidence to handle trauma scenarios. *Vitalsync* successfully bridged theoretical knowledge with real-world application, preparing students to excel in emergency medical settings.

Analytica: Mastering the Art of Report Interpretation and Analysis



On June 5, 2025, GMERS Medical College and Hospital, Gandhinagar, hosted *Analytica*, a structured workshop on basic laboratory report interpretation. This initiative aimed to empower undergraduate MBBS students with the critical skills needed to analyze common medical investigations, fostering a deeper understanding of their clinical significance. The workshop was led by esteemed faculty from the Departments of Biochemistry and Medicine, including Dr. Kirankumar Chauhan (Professor and Head, Biochemistry), Dr. Gaurav Modi (Professor, Biochemistry), Dr. Lipi Patel (Associate Professor, Biochemistry), and Dr. Neema Thakkar (Assistant Professor, Medicine).

The workshop's objectives were multifaceted: to develop critical thinking for prescribing appropriate investigations, interpreting positive and negative test results, understanding pre-analytical, analytical, and post-analytical errors, and correlating laboratory findings with clinical contexts. It focused on demystifying routine tests such as complete blood count (CBC), liver function tests (LFT), renal function tests (RFT), thyroid profile, electrolytes, and urinalysis, which are integral to modern medical practice.

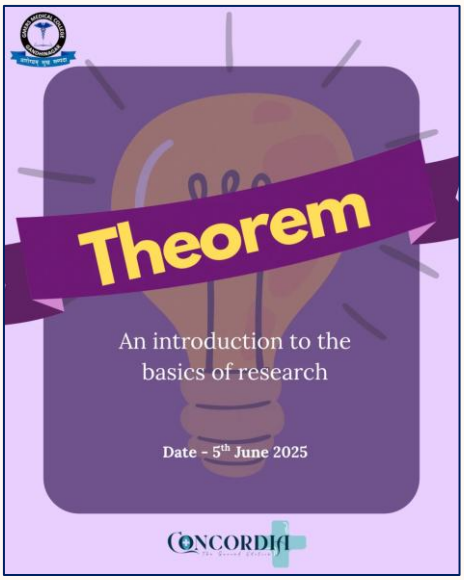
The first three sessions, led by Dr. Lipi Patel, Dr. Gaurav Modi, and Dr. Kirankumar Chauhan, provided a comprehensive overview of commonly ordered investigations. These sessions were highly interactive, incorporating Q&A segments, real-life case scenarios, visual aids, and live quizzes to reinforce learning. For example, during the CBC segment, faculty emphasized not only identifying abnormalities like low hemoglobin or high white blood cell counts but also interpreting patterns such as neutrophil-lymphocyte ratios and their implications in diagnosing conditions like infections or malignancies. The sessions broke down complex terminologies into practical, clinically relevant insights, making laboratory data accessible to undergraduate students.

The workshop culminated in a Q&A session led by Dr. Kirankumar Chauhan, during which students presented doubts and shared report samples encountered during internships or clinical postings. Dr. Neema Thakkar provided valuable insights into common interpretive pitfalls and shared strategies for developing a systematic approach to report analysis. This session fostered peer learning and collaboration, encouraging students to engage critically with laboratory data.

Analytica successfully bridged the gap between preclinical theory and clinical application, enabling students to confidently interpret lab results and contribute meaningfully during clinical rotations. Participants provided feedback that the workshop enhanced their ability to connect textbook knowledge with real-world

patient care, making them more adept at using laboratory data to inform diagnosis, monitoring, and treatment decisions. The event underscored the pivotal role of biochemistry in patient care and showcased the students' proactive spirit in advancing their medical education.

Theorem: An Introduction to the Basics of Research



On June 5, 2025, GMERS Medical College, Gandhinagar, hosted *Theorem*, a workshop on clinical research methodology and scientific writing. This session aimed to provide MBBS students with a foundational understanding of clinical research principles and the essential steps involved in drafting and publishing high-quality research papers, preparing them for academic and professional contributions in medicine.

The workshop began with a lecture by Dr. Amit Shah, Professor (HG) of Pharmacology, titled *"Current Scenario & Future Prospects of Clinical Research"*. Dr. Shah highlighted the growing importance of research in advancing medical knowledge and improving patient care, discussing emerging trends and opportunities for undergraduate researchers.

Dr. Darshan J. Dave, Professor and Head of Pharmacology, followed with a session on *"Clinical Research: Types & Design"*. He provided a detailed overview of various research methodologies, including observational and experimental study designs, and offered practical guidance on selecting feasible research topics for undergraduate students. His insights helped demystify the research process, making it accessible to novices.

The third session, *"Literature Search for Clinical Research"*, was delivered by Dr. Apexa Shukla, Associate Professor of Pharmacology. Dr. Shukla guided students on formulating clear and focused research titles, navigating challenges in conducting literature reviews, and preparing structured research protocols. She emphasized the importance of a thorough literature search in building a strong foundation for research studies.

The workshop concluded with a session by Dr. Kamalesh Bhatt, Assistant Professor of Pharmacology, on *"Essential Components of a Clinical Research Proposal"*. Dr. Bhatt provided a step-by-step guide to framing a research proposal, covering critical elements such as objectives, methodology, ethical considerations, and publication platforms. He introduced students to tools and

techniques for crafting compelling proposals, ensuring alignment with scientific and ethical standards.

With the guidance of this distinguished faculty, students gained a comprehensive understanding of the research process, from ideation to publication. The interactive format, combined with practical insights, empowered participants to pursue research with confidence. *Theorem* not only sparked enthusiasm for academic inquiry but also equipped students with the tools to contribute meaningfully to medical literature in their future careers.

Concordia 2025 stands as a testament to the initiative, creativity, and dedication of the MBBS students at GMERS Medical College, Gandhinagar. Through the four meticulously designed workshops—*Bandage*, *Vitalsync*, *Analytica*, and *Theorem*—participants acquired practical skills, clinical acumen, and research capabilities that will serve as a strong foundation for their medical careers. These workshops not only enhanced technical proficiency but also fostered critical thinking, teamwork, and a commitment to excellence in patient care and academic inquiry. The enthusiastic participation, expert guidance from faculty, and hands-on learning approach created an enriching environment that inspired students to push the boundaries of their medical education. As GMERS Medical College continues to nurture such innovative initiatives, *Concordia 2025* will be remembered as a milestone in shaping competent, compassionate, and research-driven physicians ready to meet the challenges of modern healthcare.

Advancing Diagnostic Excellence: CME on Liquid-Based Cytology

On May 28, 2025, the Department of Pathology at GMERS Medical College and General Hospital, Gandhinagar, successfully organized a Continuing Medical Education (CME) session on Liquid-Based Cytology (LBC). Held from 3:00 PM to 5:00 PM in the conference hall on the 4th floor of the OPD building, the event attracted a diverse and enthusiastic audience, including faculty, resident doctors, and nursing staff from various clinical departments. This CME underscored the institution's commitment to fostering interdisciplinary learning and advancing diagnostic practices in modern medicine.

Liquid-Based Cytology (LBC) represents a transformative advancement in cytopathology, significantly enhancing the quality and accuracy of cytological diagnoses compared to conventional Pap smears. By producing cleaner, more uniform smears with reduced obscuring elements such as mucus and blood, LBC facilitates the detection of epithelial cell abnormalities. This technique is particularly vital in cervical cancer screening, where early detection is critical for timely intervention and improved patient outcomes. As cervical cancer remains the second most common cancer among women worldwide, LBC's ability to enable ancillary testing, such as HPV DNA testing from the same sample, positions it as an indispensable tool for comprehensive cervical health assessment.

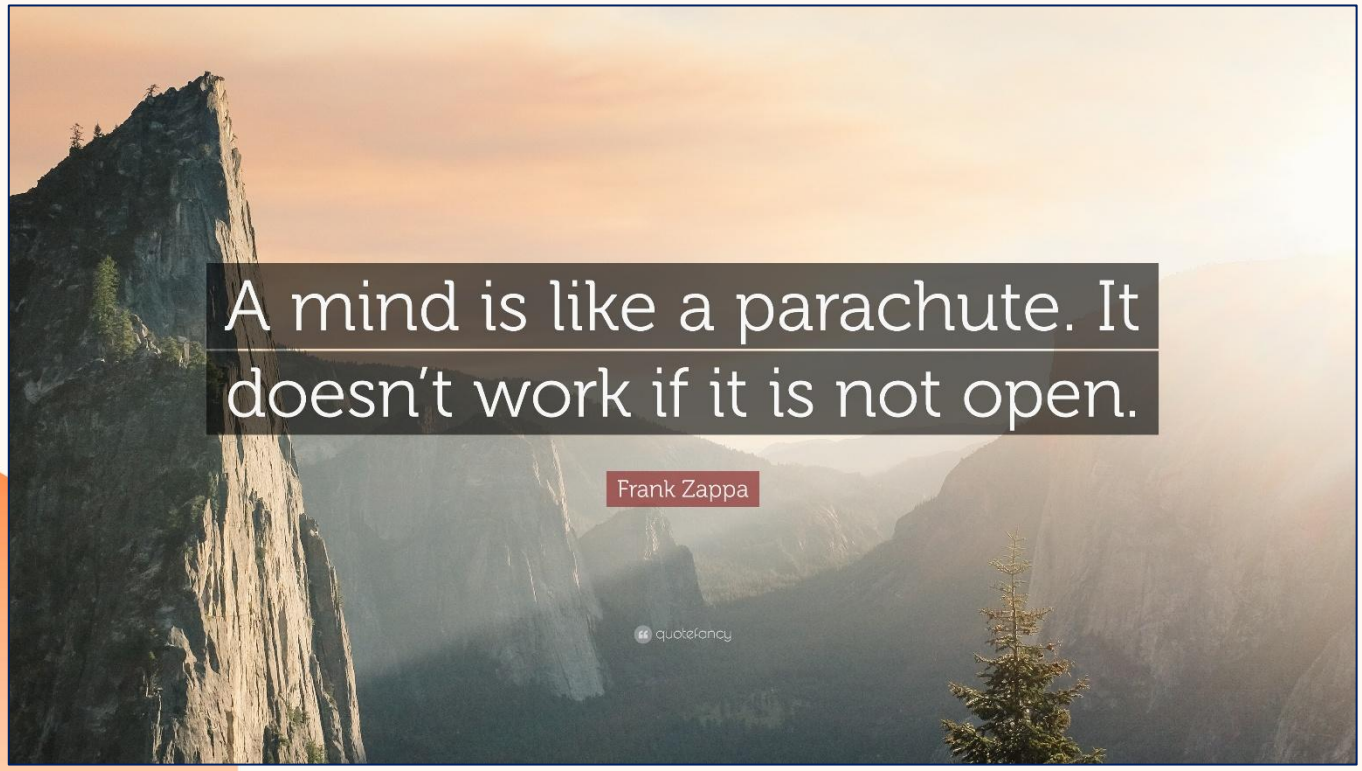
The CME featured an insightful and interactive lecture by Dr. Bhaskar Thakkar, Professor (HG) in the Department of Pathology. Dr. Thakkar's presentation focused on the principles, advantages, and clinical relevance of LBC, with a particular emphasis on its role in cervical cancer screening and women's health. He elucidated how LBC's enhanced diagnostic reliability improves early detection and management of cervical abnormalities. The lecture was well-received, with attendees appreciating Dr. Thakkar's ability to blend theoretical insights with practical applications, making complex concepts accessible and relevant to clinical practice.

A key highlight of the event was a live technical demonstration conducted by a representative from a leading medical equipment company. The expert provided a detailed, step-by-step explanation of the LBC sample preparation process and demonstrated the correct technique for cervical sample collection using a specially designed cytobrush. This hands-on session offered participants a practical understanding of the technical nuances involved in achieving accurate cytological diagnoses, enriching their knowledge and skills. The demonstration was particularly valuable for clinicians and nursing staff, who gained insights into optimizing sample quality to enhance diagnostic outcomes.

The CME fostered an enriching academic environment, with active participation from Heads of Departments and faculty members from key clinical disciplines, including Obstetrics and Gynecology, General Medicine, TB & Chest, Pediatrics, ENT, and Surgery. Resident doctors from these departments, along with nursing staff from the Gynecology OPD, contributed to the lively exchange of ideas and perspectives. Their engagement underscored the interdisciplinary value of the session, bridging gaps between pathology and clinical practice.

The two-hour interactive session served as a robust platform for knowledge-sharing and professional development. Participants noted that the CME was both informative and practically beneficial, equipping them with enhanced skills to improve clinical and diagnostic practices in their respective fields. The combination of expert lectures, hands-on demonstrations, and interdisciplinary discussions made the event a resounding success.

We extend our heartfelt gratitude to all attendees for their enthusiastic participation and commitment to advancing medical education. Special thanks are due to our esteemed CEO, Dr. Manish Ramavat, Dean, Dr. Ankur Zalawadia, and Medical Superintendent and Head of the Department of Pathology, Dr. Meeta Parikh, for their unwavering support, guidance, and encouragement. Their leadership was instrumental in making this CME a landmark event in promoting diagnostic excellence at GMERS Medical College, Gandhinagar.



Celebrating Academic Excellence: Achievements of the Department of Anaesthesia

The Department of Anaesthesia at GMERS Medical College, Gandhinagar, continues to be a beacon of academic excellence, fostering the growth of future anaesthesiologists through its rigorous post-graduate (PG) programs. Since the inception of its post-graduation course in 2015, the department has successfully nurtured approximately 60 PG students, awarding MD and DNB degrees to aspiring professionals who have gone on to make significant contributions to the field of anaesthesiology.

A critical milestone in achieving a PG degree is the submission of a dissertation to the university, a testament to a student's research capabilities and dedication. On May 19, 2025, six PG (MD) students from the 2022–23 batch of the Department of Anaesthesia submitted their signed dissertation copies to the Dean's office, well ahead of the university's deadline of June 5, 2025. This timely submission reflects the unwavering commitment of both the PG students and their mentors, highlighting the department's emphasis on academic discipline and excellence. The completion of these dissertations marks not only an academic achievement but also the beginning of a new chapter in these students' professional journeys. We extend our heartfelt congratulations and best wishes to these PG students as they continue to shape their futures, poised to create masterpieces in the unwritten symphony of their careers.

The Department of Anaesthesia also welcomed 11 PG (MD) students for the 2024–25 batch, all of whom have demonstrated initiative by submitting their dissertation topic proposals to the Central Research Committee. Each proposal received approval, underscoring the students' ability to identify relevant and impactful research questions under the guidance of the department's esteemed faculty. This early milestone sets a strong foundation for their academic and research endeavors, ensuring they are well-prepared to contribute to advancements in anaesthesiology.

Adding to the department's accomplishments, preparations are underway for the 57th Annual Conference of the Indian Society of Anaesthesiologists, scheduled to be held from September 19 to 21, 2025, at the Hyatt Regency in Ahmedabad. The conference, themed "Technology-Enhanced Anaesthesia Care: Demand of the Day", promises to be a pivotal event for professionals in the field. The organizing Chairperson, Secretary, and other office bearers recently visited the Department of Anaesthesia at GMERS Medical College to encourage faculty and PG students to actively participate. They emphasized the importance of registering for the conference to stay abreast of cutting-edge advancements, engage in rigorous training, and gain insights into the competitive landscape of anaesthesiology. This event presents a valuable opportunity for the department's members to expand their knowledge, network with peers, and showcase their expertise on a national platform.

The Department of Anaesthesia at GMERS Medical College remains dedicated to fostering academic rigor, research innovation, and professional development. Through its robust PG programs, timely dissertation submissions, and active engagement in national conferences, the department continues to uphold its reputation as a leader in medical education. We extend our gratitude to the faculty, students, and administrative leadership for their relentless efforts in driving these achievements and wish them continued success in their pursuit of excellence in anaesthesiology.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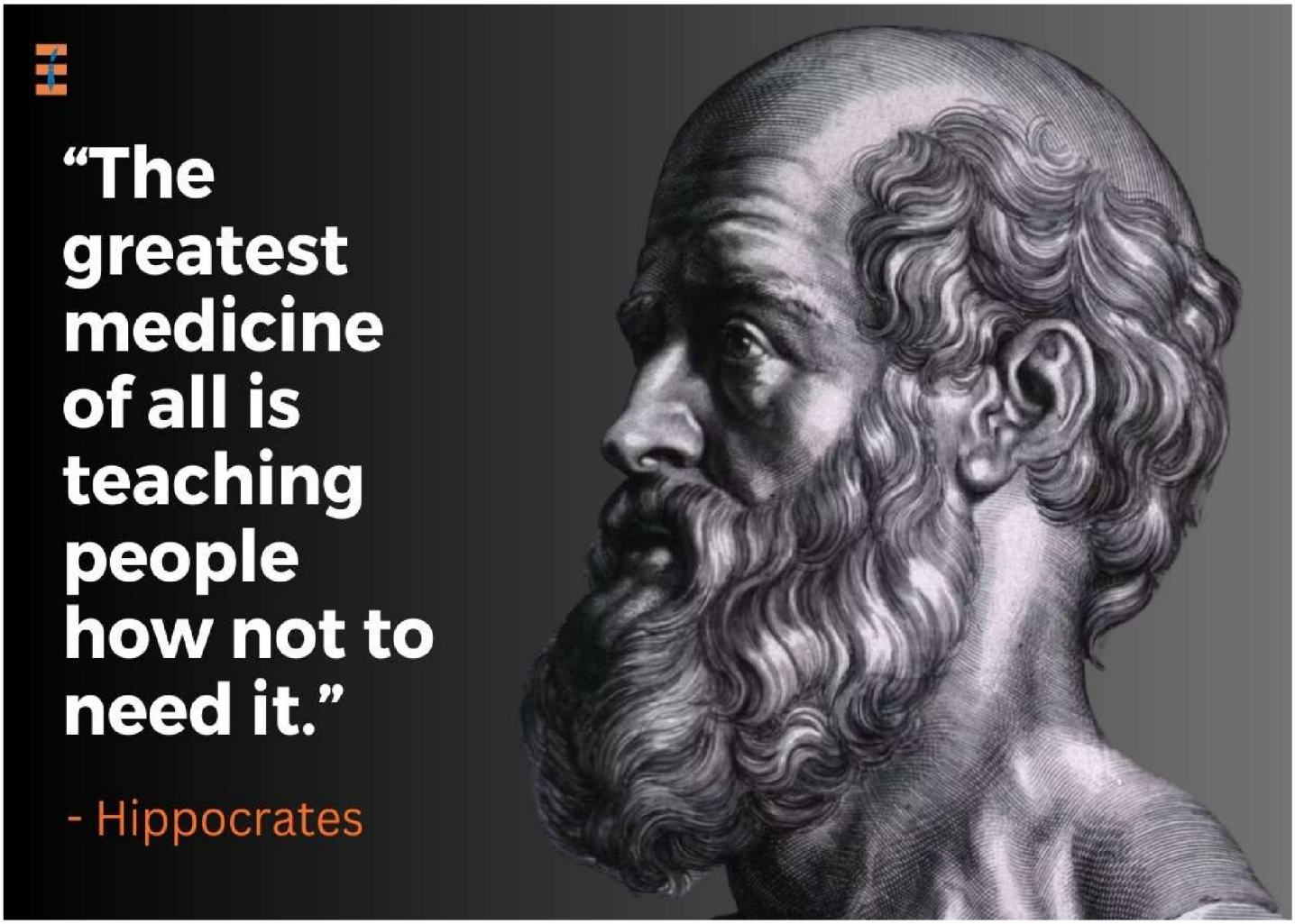
“The greatest medicine of all is teaching people how not to need it.”
- Hippocrates