



# प्रारंभ

**AN OFFICIAL NEWSLETTER OF  
GMERS MEDICAL COLLEGE,  
GANDHINAGAR**

**2025: Issue-1 (January - March)**

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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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# From Editorial Desk:

## Pharmacoepidemiology – An Overview Scope and Challenges as Dissertation Topic

*A desire to take medicine, is perhaps, the greatest feature which distinguishes man from other animal.*

– Sir William Osler, 1891

Drug discovery and development has become the prime factor for treatment of majority of clinical ailments. Availability of pharmacological agents changed treatment outcome significantly. At the same time, increased usage of pharmacological agents generated darker area of statistics too. Adverse drug reaction is the fourth leading cause of death. Incidence of adverse drug reaction is around 12% in outpatient department. 3-10% hospitalization is due to adverse drug reactions. Adverse drug reactions leads to 6-10% increase in hospital stay. Eventhough before the approval of drug for marketing, it has to go through rigorous clinical trials, there are many rare, delayed adverse drug reactions are not noticed during clinical trials. Further to this, phase 0-3 clinical trials are considered to be conducted in artificial environment. i.e. Effect of the investigational agent has not been observed and identified in –

- (1) Extremes of age – paediatric and geriatric populations
- (2) Pregnancy and lactation
- (3) Effect of the investigational agent with other agents. i.e. drug – drug interactions
- (4) Effect of the investigational agent in hepatic and renal insufficiency

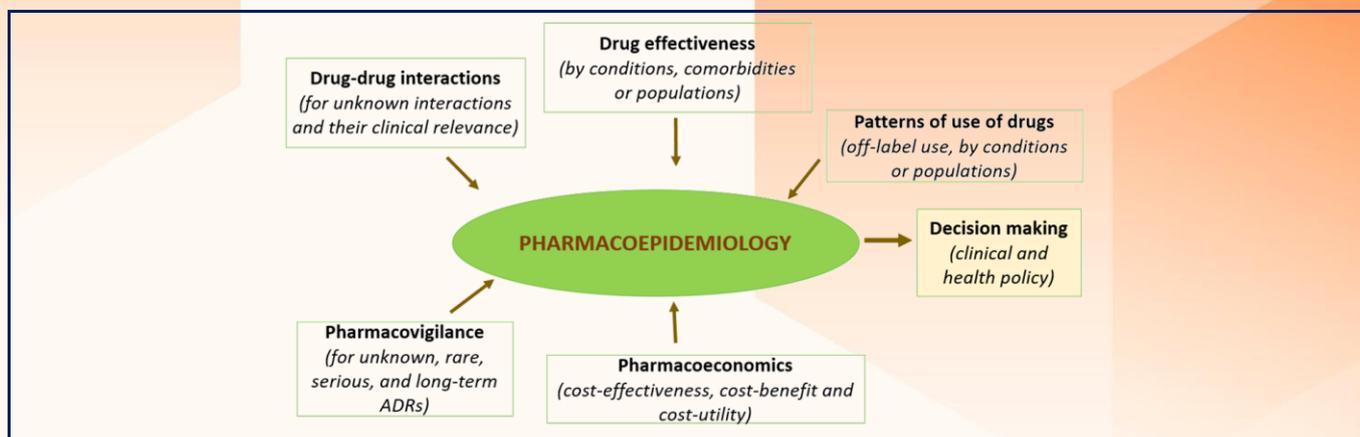
- (5) Effect of the investigational agent with other comorbid conditions.

Hence the ideal clinical status of the pharmacological agent is to be defined after the post marketing studies for several years. Certain examples of Adverse Drug Reactions identified after the approval of the drug are depicted in table 1.

Hence there is definite need of observation of real-life clinical situations (treatment ailments) and generate evidence from interventional studies in real life situations. For this effectiveness and usage of drugs in larger population over prolonged period of time is required. With this need the concept of pharmacoepidemiology emerged. Pharmacoepidemiology utilizes the concepts and methods of inquiry from the principles of epidemiology with the focus of inquiry is on clinical pharmacology. Hence pharmacoepidemiology has been defined as “Usage principles of epidemiology to study the use and effects of drugs (beneficial and adverse effects) in a large population setting and in real conditions”. Primary objectives of pharmacoepidemiology are to enhance the understanding of the benefits and risks associated with drug use and clinical decision making and public health policy.

**Table 1: Adverse Drug Reactions found during phase IV clinical trials**

Phenylbutazone	Serious blood dyscrasias
Fluoxetine	Suicidal ideation
<b>Human Insulin</b>	<b>Disproportionate amount of hypoglycemia</b>
Silicone breast implants	Cancer, rheumatologic disease, and many other problems
<b>Isotretinoin</b>	<b>Teratogenicity</b>
Indomethacin	Small intestinal perforation
β-agonist	Smaller risk of death with β-agonist inhaler used in bronchial asthma (epidemic of death in New Zealand with Fenoterol)
<b>Terfenadine, Astemizole, Cisapride</b>	<b>Arrhythmia</b>
Postpartum use of Bromocriptine	Hypertension, seizure and shock
Dexfenfluramine and Fenfluramine	Primary pulmonary hypertension and cardiac valvular diseases
Tramadol	Seizures
Vitamin K	Anaphylactic reaction
<b>Rotavirus vaccine</b>	<b>Intussusception</b>



**Figure 1: Main goals of pharmacoepidemiology** (Adapted from: Sabaté M, Montané E. *Pharmacoepidemiology: An Overview. J Clin Med.* 2023)

Table 2: Types of Pharmacoepidemiological studies			
Type of Study		Main Utility	Limitations
Descriptive Studies	Cross sectional studies	To provide a snapshot of drug use and its effects on a population	Not good for rare or short-duration diseases
	Drug Utilization Studies	To describe patterns of use of drugs regarding rational use and guidelines	No information on drugs
	Ecological Studies	To identify patterns of drug use and disease occurrence	Data are inaccurate
Analytical Studies	Cohort Studies	To study long-term drug effects. Can assess multiple exposures and outcomes	Need for a large sample size and an extended study period. Not useful for studying rare outcomes or diseases
	Case Control Studies	To assess rare outcomes or diseases, and those with long latency periods	Accurate selection of control subjects is a challenge. Difficult to find cases
	Target Trial Emulation	Emulates a hypothetical randomized trial Eliminates common sources of bias	Cannot eliminate the bias that arises from a lack of randomization. Requires detailed data on treatment, outcome, and confounders. Not useful for new drugs.

(Adapted from: Sabaté M, Montané E. *Pharmacoepidemiology: An Overview. J Clin Med.* 2023)

Pharmacoepidemiological studies are basically divided into two types: (1) Descriptive studies and (2) Analytical studies. Further subtypes of these studies as well as their utilities and limitations are mentioned in table 2.

Pharmacoepidemiological studies are useful by providing information which supplements that available from premarketing studies and hence useful for better quantitation of the incidence of known adverse and beneficial effects. These studies are also useful to provide new types of information not available from premarketing studies. i.e. Discovery of previously undetected adverse and beneficial effects (Uncommon & delayed effects), Patterns of drug utilization, The effects of drug overdoses and economic implications of drug use. Reassurances about drug safety & fulfilment of ethical and legal obligations are the general contributions of pharmacoepidemiology.

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# Nafithromycin: India's Pioneering Indigenous Macrolide Antibiotic in the Era of Antimicrobial Resistance

Antimicrobial resistance (AMR) stands as a formidable and escalating global health crisis, threatening to undermine decades of advancements in modern medicine. The unchecked proliferation of drug-resistant bacteria poses a significant risk to public health, potentially leading to increased morbidity, mortality, and economic burden.<sup>[1]</sup> India has achieved a significant milestone in this global battle against AMR with the development of Nafithromycin, the first indigenously developed macrolide antibiotic. This groundbreaking achievement not only highlights India's burgeoning expertise in pharmaceutical research and innovation but also offers a beacon of hope in combating recalcitrant bacterial infections.<sup>[2]</sup>

Nafithromycin, a novel fourth-generation semi-synthetic macrolide belonging to the ketolide subclass, exhibits potent activity against a wide spectrum of antibiotic-resistant bacteria. Its unique structural features, including a naphthyl group and a keto function at C3 replacing the L-cladinose sugar, contribute to its enhanced antimicrobial efficacy. This structural modification allows Nafithromycin to overcome common bacterial resistance mechanisms, broadening its spectrum of activity.<sup>[3]</sup>

## Mechanism of Action

Nafithromycin exerts its antibacterial effects through a dual mechanism of action. Primarily, it inhibits bacterial protein synthesis by targeting the 50S subunit of the 70S bacterial ribosome, thereby disrupting the elongation of the peptide chain essential for bacterial growth and replication. Additionally, the presence of the naphthyl group contributes to the inhibition of peptidoglycan biosynthesis, a critical process for bacterial cell wall integrity. This dual-targeting mechanism enhances Nafithromycin's potency and its ability to combat bacteria that have developed resistance to other macrolide antibiotics.<sup>[3]</sup>

## Spectrum of Activity

Preclinical and clinical studies have demonstrated Nafithromycin's efficacy against a range of clinically significant pathogens, including both Gram-positive and select Gram-negative bacteria. Notably, it exhibits strong

activity against notorious antibiotic-resistant strains such as Methicillin-Resistant *Staphylococcus aureus* (MRSA) and Vancomycin-Resistant *Enterococcus* (VRE), which pose significant therapeutic challenges in healthcare settings. Furthermore, Nafithromycin demonstrates activity against typical respiratory pathogens like *Streptococcus pneumoniae* and *Haemophilus influenzae*, as well as atypical pathogens such as *Mycoplasma pneumoniae* and *Chlamydia pneumoniae*, which are common culprits in community-acquired respiratory infections. Remarkably, *in vitro* studies suggest that Nafithromycin is up to ten times more potent than azithromycin against certain respiratory pathogens.<sup>[3]</sup>

## Pharmacokinetic Profile

Preclinical data indicate that Nafithromycin is rapidly absorbed following oral administration, exhibiting good tissue penetration, particularly into the lungs, the primary site of infection for its initial indication. Its long half-life (9-14 hours) allows for convenient once-daily dosing. Importantly, clinical trials have validated its efficacy with a short, three-day treatment regimen, which is expected to improve patient compliance and clinical outcomes compared to longer treatment courses with other antibiotics.<sup>[3]</sup>

## Safety Profile

Early toxicity studies have indicated that Nafithromycin is generally well-tolerated, with predominantly mild gastrointestinal side effects reported. Notably, preclinical data have not raised significant concerns regarding nephrotoxicity or hepatotoxicity. Phase 3 clinical trial data further corroborate its favourable safety profile, with no serious adverse events attributed to the drug. These findings suggest that Nafithromycin has the potential to be a safe and effective treatment option for community-acquired bacterial pneumonia. However, comprehensive post-marketing surveillance will be crucial to further evaluate its long-term safety in diverse patient populations.<sup>[2]</sup>

## Therapeutic Potential

Nafithromycin, marketed as "Miqnaf," has been

specifically developed to address the urgent unmet medical need for effective and safe antibiotics for community-acquired bacterial pneumonia (CABP), particularly those caused by drug-resistant pathogens. The successful completion of Phase 3 clinical trials in India demonstrated that a three-day regimen of Nafithromycin is as effective as a seven-day course of moxifloxacin, a last-line respiratory antibiotic, in achieving clinical cure in patients with CABP. This shorter treatment duration offers significant advantages, including improved patient adherence, reduced healthcare costs, and potentially lower selection pressure for the development of further antibiotic resistance.<sup>[3]</sup>

Furthermore, Nafithromycin's broad spectrum of activity, encompassing both typical and atypical respiratory pathogens, including those resistant to commonly used antibiotics like macrolides, beta-lactams, and fluoroquinolones, positions it as a valuable empirical therapy option for CABP. Its ability to achieve high and sustained concentrations in the lung tissue, the primary site of infection in pneumonia, further enhances its therapeutic efficacy.<sup>[3]</sup>

### **India's Leadership in Combating Antimicrobial Resistance: A Paradigm of Public-Private Collaboration**

Nafithromycin marks a significant breakthrough as the first novel antibiotic in its class developed globally in over three decades and the first indigenous antimicrobial agent from India to combat antimicrobial resistance (AMR). This milestone highlights India's growing pharmaceutical research capabilities and commitment to addressing AMR. Developed by Wockhardt with financial support from Biotechnology Industry Research Assistance Council (BIRAC) under the Department of Biotechnology, the project exemplifies successful public-private collaboration. BIRAC's ₹8 crore (~US\$945,000) funding enabled Phase 3 clinical trials, bridging the gap between research and clinical application. Nafithromycin's efficacy against drug-resistant respiratory pathogens and its favourable safety profile make it a crucial addition to the global antimicrobial arsenal. India's proactive AMR strategies, including research investment, public-private partnerships, and responsible antimicrobial

stewardship, position it as a leader in global healthcare. Sustained efforts in these areas are vital to tackling the rising threat of antibiotic resistance worldwide.<sup>[5]</sup>

### **Conclusion**

Nafithromycin represents a significant breakthrough in the fight against antimicrobial resistance. As India's first indigenously developed macrolide antibiotic, it underscores the nation's scientific capabilities and commitment to addressing a critical global health challenge. Its efficacy against drug-resistant bacteria, convenient short-course regimen, and favourable safety profile offer a promising new therapeutic option for community-acquired bacterial pneumonia. The successful development of Nafithromycin through a robust public-private partnership serves as an inspiring model for future endeavours in antimicrobial drug discovery and development, paving the way for a healthier future in the face of the growing threat of AMR.

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# Curriculum Implementation Support Program (CISP) – III

The Curriculum Implementation Support Program (CISP) – III was successfully conducted at the auditorium of GMERS Medical College, Gandhinagar, on February 20-21, 2025, under the aegis of the NMC Nodal Centre – NHL Municipal Medical College, Ahmedabad. This Faculty Development Program aimed to provide an in-depth understanding of Competency-Based Medical Education (CBME) and its effective implementation, as per the Graduate Medical Education Regulations (GMER) 2019. The program was attended by enthusiastic faculty members eager to understand and implement CBME principles effectively. Dr. Sapna Gupta was appointed as the NMC observer for this event and provided valuable inputs throughout various sessions, ensuring alignment with national guidelines and best practices.



The program commenced with a Pre-Test to assess the baseline knowledge of participants regarding CBME

concepts. This was followed by Inauguration, and an Introductory Session, where participants and faculty members were introduced, setting the tone for an engaging and collaborative learning experience. The first academic session, conducted by Dr. Darshan J. Dave, focused on Competency-Based Medical Education (CBME) and the Indian Medical Graduate (IMG), covering the definition of competency, its difference from objectives and outcomes, and the fundamental principles of CBME. Participants actively engaged in discussions, seeking clarity on how CBME differs from traditional medical education. The Graduate Medical Education Regulations (GMER) 2019 session, led by Dr. Mallika Chavada, emphasized key changes, including the incorporation of the Foundation Course, competency-based training, formative feedback mechanisms, and assessment strategies. This session provided critical insights into the evolving medical education landscape and how these changes align with global standards.



A session on Alignment and Integration was conducted by Dr. Pratik Shah and Dr. Amit Upadhyah, demonstrating how various disciplines in medical education could be integrated for a holistic learning experience, using competency tables. The session included interactive topics and practical applications, making it easier for faculty to visualize the integration process. This was followed by an insightful discussion on Electives by Dr. Amit M. Shah, explaining their concept, implementation challenges, and possible solutions. Participants shared their experiences

regarding electives at their respective departments, discussing ways to improve the system.

highlighted real-life scenarios and role-playing activities to reinforce key concepts. Throughout the day, Dr. Sapna Gupta, the NMC observer, provided valuable inputs, ensuring that the discussions remained aligned with national guidelines and best practices.



The second day commenced with a Report of the First Day, presented by Dr. Priyanka Sutariya, summarizing the key learnings. The first academic session introduced the Student Doctor Method of Clinical Teaching, conducted by Dr. Ekta Dalal, which enables medical students to actively engage in patient care while under supervision. Faculty members discussed how this method could enhance student engagement and accountability.



The session on Early Clinical Exposure, delivered by Dr. Sudarshan Gupta, elaborated on its concept, components, and timeframe, with examples illustrating how early exposure to clinical settings enhances students' learning and professional development. The final session of the day focused on the AETCOM Module, presented by Dr. Dharmendra Dodiya, reviewing its purpose, mission, and objectives, emphasizing the role of ethics, attitude, and communication in medical education. The session



This was followed by an extensive Skills Training session, led by Dr. Pratik Shah, covering competency acquisition and the role of skills labs in medical education. The session included hands-on demonstrations and best practices for implementing skills training effectively. The Assessment in CBME session, facilitated by Dr. Amit M. Shah and Dr. Atul Shrivastav, discussed various assessment methods, including OSCE (Objective Structured Clinical Examination) and OSPE (Objective Structured Practical Examination), and highlighted the importance of constructive feedback in student evaluation. Faculty members engaged in a lively discussion on the challenges of competency-based assessment and how to ensure objective evaluation.

A practical session on Drafting Teaching Schedules and Assessment Plans engaged participants in designing competency-based schedules for lectures, small group discussions, and clinical postings, along with corresponding assessment plans. This session was conducted by Dr. Ekta Dalal and provided a hands-on approach to curriculum planning. Faculty members developed drafts and shared feedback with peers, making the session highly interactive. A group activity on Record Maintenance – Log Book and Clinical Case Records followed, where participants discussed best practices in maintaining essential records for competency tracking and student progress. This session was led by Dr. Kirankumar Chauhan and Dr. Jatin Patel, emphasizing the importance of meticulous documentation in medical education. The session on Curricular Governance, conducted by Dr. Amit Upadhyah, focused on the policies and procedures required for the successful governance of CBME implementation. The discussion revolved around institutional challenges and solutions for smooth implementation. Dr. Sapna Gupta, as the NMC observer, provided additional insights on maintaining proper documentation and governance structures.



The program concluded with a Feedback and Open House Session, where participants shared their experiences and insights. Many faculty members appreciated the practical approach of the program, particularly the hands-on sessions and group activities. This was followed by the Valedictory Session and Post-Test to evaluate knowledge gained over the two days. The post-test results showed a marked improvement, indicating that the sessions had significantly enhanced participants' understanding of CBME concepts.

Key takeaways and outcomes from the program included a deeper comprehension of competency-based

medical education, with participants gaining clarity on CBME principles, assessment methods, and curriculum integration strategies. The program fostered a collaborative learning environment, encouraging active participation and knowledge exchange among faculty members. The hands-on sessions provided faculty with practical tools to implement CBME effectively. Faculty members appreciated the emphasis on real-life applications and interactive learning methods, making the program highly engaging and informative. The continuous inputs from Dr. Sapna Gupta as the NMC observer enriched the discussions, ensuring that all

aspects of CBME implementation were aligned with the latest national guidelines. Overall, CISP-III at GMERS Medical College, Gandhinagar, proved to be an enriching experience for all participants, contributing significantly to the faculty's ability to implement competency-based medical education in alignment with national medical education standards. The event underscored the importance of continuous faculty development in ensuring the successful adoption of CBME and improving the quality of medical education in India.



# Postgraduate Orientation Program 2025: A Guiding Start for New Residents

A Postgraduate Orientation Program was organized at GMERS Medical College, Gandhinagar, on March 7, 2025, to welcome and guide the newly admitted postgraduate students from all broad specialties. The program was conducted under the guidance of Dean, Dr. Ankur Zalawadia, and Medical Superintendent, Dr. Meeta Parikh, with the aim of acquainting the fresh batch of residents with the institutional framework, responsibilities, and essential skills required during their postgraduate journey.

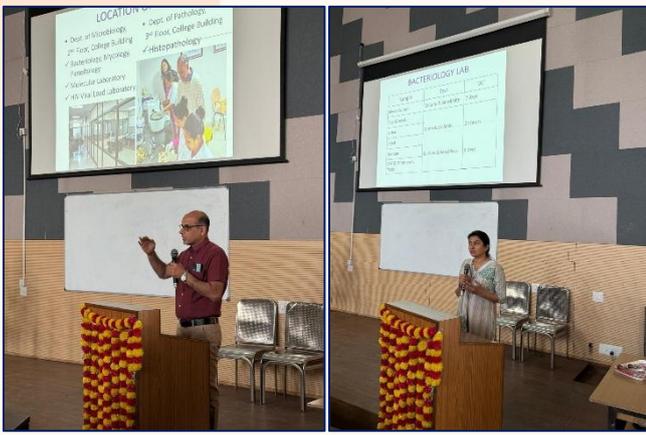
Bela Padhiar. She introduced the students to the legacy, infrastructure, and academic culture of the institution, helping them understand the rich learning environment they were stepping into. Following this, Dr. Dinkar Goswami sensitized the students about essential aspects of their residency. He elaborated on the rules and regulations governing postgraduate training, the rights and responsibilities of resident doctors, and the ethical expectations placed upon them. This session was crucial in setting the tone for their academic and professional conduct throughout their residency.



To introduce the students to research methodology and academic requirements, Dr. Darshan Dave delivered a session on Basic Course in Biomedical Research (BCBR), thesis formulation, and research orientation. He emphasized the significance of research in postgraduate education and provided insights into developing a structured and meaningful research project. Recognizing the importance of soft skills in medical practice, Dr. Gunjan Upadhyay conducted an interactive session on communication skills and time management. She highlighted the need for effective doctor-patient communication, teamwork in healthcare settings, and strategies for managing workload efficiently—all of which are vital for maintaining professionalism and ensuring quality patient care.

A crucial part of postgraduate training involves understanding the technical aspects of various laboratory disciplines. Dr. Bhaskar Thakkar and Dr. Payal Raval provided an informative session on the fundamental principles of biochemistry, microbiology, and pathology, helping students grasp the significance of laboratory investigations in clinical decision-making.

The session commenced with a warm welcome and an overview of GMERS Medical College delivered by Dr.



ragging and ensuring a safe and respectful learning environment.

The significance of proper clinical documentation was highlighted by Dr. Niyati Lakhani, who provided valuable guidance on maintaining accurate patient records, which are crucial for patient safety, legal protection, and academic purposes. Emergency care being a critical aspect of residency, Dr. Tarlika Doctor discussed the rules and responsibilities in the emergency department. She emphasized triage protocols, handling critical cases, teamwork in emergencies, and ethical decision-making under pressure.

Given the medico-legal responsibilities of doctors, Dr. Shailesh Zaveri addressed medicolegal issues in patient care. He educated the students on documentation protocols, informed consent, handling legal cases, and the implications of negligence in medical practice. This session aimed to make the residents aware of their legal obligations and the importance of adhering to ethical and legal standards in patient management.



In the afternoon, the newly admitted postgraduate students attended department-specific orientation sessions, where they interacted with their faculty members and senior residents. These sessions helped them understand the expectations, clinical workload, and academic activities of their respective departments, thereby preparing them for their roles as postgraduate trainees.



The Postgraduate Orientation Program 2025 was a comprehensive and well-structured event that equipped the fresh batch of residents with the knowledge and skills needed for a successful academic and clinical journey. With sessions covering academic responsibilities, medico-legal aspects, research, communication, stress management, and emergency care, the program provided a strong foundation for their postgraduate training.

Understanding the challenges of postgraduate training, Dr. Kaushal Jadeja conducted a session on stress management. He discussed coping mechanisms, maintaining a work-life balance, and strategies for handling professional pressure. This was followed by a talk on anti-ragging policies by Dr. Mitul Mistry, reinforcing the institution's zero-tolerance stance on

By organizing such orientation programs, GMERS Medical College continues its commitment to shaping competent, ethical, and well-rounded medical professionals, ensuring that the residents are well-prepared to face the challenges of their medical careers with confidence and diligence.

# A Celebration of Achievement: GMERS Medical College, Gandhinagar, Honors the MBBS 2025 Graduates

On March 29, 2025, GMERS Medical College, Gandhinagar, celebrated the graduation ceremony of its MBBS 2025 batch, marking the culmination of years of rigorous academic and clinical training. This significant event honored the graduates' dedication and readiness to enter the medical profession.



GMERS Medical College, established in 2012 and affiliated with Gujarat University, is recognized for its commitment to high-quality medical education and comprehensive clinical exposure. The 2025 batch, having embarked on their journey in 2019, engaged in a demanding curriculum that blended theoretical knowledge with practical experience. The college's modern facilities, including advanced laboratories and a multi-specialty teaching hospital, provided a robust learning environment.



The ceremony was graced by esteemed dignitaries, including Dr. Manish Ramavat, CEO of GMER Society, who served as the chief guest. His address emphasized the vital role of medical professionals in advancing healthcare and improving societal well-being. The presence of Additional Dean Dr. Darshan Dave, Assistant Dean Dr. Amit Upadhyah, and Superintendent Dr. Meeta Parikh added prestige to the occasion, as they celebrated the graduates' accomplishments.

The ceremony featured speeches reflecting on the graduates' academic journey, highlighting the

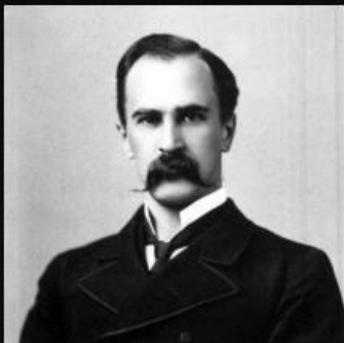
challenges they overcame and the promising future ahead. The conferral of the MBBS degrees symbolized their readiness to embark on careers dedicated to patient care, medical research, and healthcare advancement. This milestone represented not just the completion of their studies, but the beginning of their roles as competent and compassionate medical professionals.



A truly elevated moment occurred when Dr. Darshan Dave led the graduates in reciting the Hippocratic Oath. This solemn act underscored their commitment to ethical medical practice and their dedication to serving humanity.



This ceremony celebrated the achievements of the MBBS 2025 batch and their preparedness to contribute significantly to the healthcare sector. We extend our heartfelt congratulations and best wishes to the graduates as they embark on their professional journeys.



The good physician treats the disease; the great physician treats the patient who has the disease.

~ William Osler

# Sports Week 2025: A Celebration of Talent, Teamwork, and Triumph

The much-awaited Sports Week at GMERS Medical College, Gandhinagar has concluded with remarkable enthusiasm and memorable moments. The week was filled with healthy competition, unparalleled energy, and teamwork, leaving everyone with a sense of achievement and pride. Here's a recap of the exciting events that made this year's Sports Week a grand success.

## Inauguration Ceremony: A Grand Beginning



The Sports Week kicked off with a spectacular inauguration ceremony, where the ribbon was cut by our esteemed Dean, Dr. Ankur Zalawadiya, and Additional Dean, Dr. Darshan Dave. Their presence set the stage for a week filled with spirit, energy, and enthusiasm. To ignite the competitive flame, Dean Sir and Additional Dean Sir also had a memorable moment participating in a friendly game of cricket, encouraging the students to embrace the competitive yet joyous spirit of the event. The lighting of the torch symbolized the beginning of an action-packed week. Their words of wisdom inspired all the participants to put forth their best efforts, reminding them that true victory lies in the spirit of sportsmanship.

## Cricket: A Thrilling Contest of Skill and Strategy



Cricket, without a doubt, was one of the biggest attractions of the Sports Week. With both serious players and enthusiasts taking the field, the competition was fierce. Teams displayed exemplary skills, whether it was in batting, bowling, or fielding, making for a highly engaging series of matches. The strategies adopted by different teams showed their deep understanding of the game, with captains leading their teams with great foresight. The atmosphere around the cricket ground was electric, as every run, every boundary, and every wicket earned loud cheers from the spectators. Black panthers emerged as the deserving champions after a thrilling finale, proving their dominance on the field with an all-round performance. Their impeccable teamwork and determination were key to their success.

## Football: A Battle of Strength and Teamwork



The football tournament was a fast-paced, action-packed event that saw players showcasing incredible stamina, strength, and agility. The matches were filled with thrilling moments — from breathtaking saves to

perfectly executed goals — keeping the spectators on their toes. The teams demonstrated excellent coordination, with players running tirelessly up and down the field, strategically passing the ball and finding gaps in the opposition’s defense. The excitement reached its peak during penalty shootouts, where each kick could turn the tide. In the end, Capital F.C. triumphed, not just because of their technical prowess, but also because of their exceptional teamwork and spirit. Their ability to work as a cohesive unit made them the champions of the football field.

### Volleyball: High-Flying Action and Intensity



Volleyball was another event that captivated the audience, with thrilling rallies and high-flying action. The teams showed incredible agility and jumping power, making every spike and block a spectacle. The games were marked by fast reactions, sharp serves, and strategic placement of the ball. Players demonstrated both offensive and defensive skills, making it clear that volleyball is as much about mental toughness as it is about physical ability. The final match was an intense showdown between two equally strong teams, The energy and passion displayed throughout the tournament were truly inspiring.

### Fun Cricket: A Light-Hearted Yet Competitive Spirit

The Fun Cricket event brought a lighter, more jovial side to the Sports Week. Although the format was casual, the competitive spirit was no less. Participants, dressed in colorful attire, played with laughter and joy, ensuring

everyone had a memorable time. The atmosphere was full of cheer, and the event was a great way to break the seriousness of the competition while still enjoying the game of cricket.



Though the focus was on fun and participation, Dinesh Jaru, Jatin Chaudhary, Dhaval Chaudhary, Het Thacker, Chitra Sirodariya, Aesha Patel, Disha Mer emerged victorious, showcasing their enthusiasm and team spirit in this relaxed version of the game.

### Badminton: Speed, Precision, and Agility

Badminton proved to be a thrilling event, with players demonstrating impressive speed, precision, and agility on the court. The fast-paced rallies kept spectators engaged as players exhibited sharp reflexes, jumping smashes, and clever drop shots. The singles and doubles matches were a true testament to the players’ ability to outwit their opponents with both offensive and defensive strategies.

### Table Tennis: Reflexes and Rapid Response

The Table Tennis competition was a test of reflexes and mental agility. The ping pong balls zipped across the tables at lightning speed, with players displaying impeccable hand-eye coordination and fast decision-making. Each match was a series of rapid exchanges, requiring the players to stay focused and react instantly to their opponent’s moves.

### Chess: Strategy, Patience, and Focus

In contrast to the physical sports, Chess was a brilliant display of intellect and strategy. The tournament was a battle of minds, where players had to anticipate their opponent’s moves and outthink them at every turn. Each move was calculated, and the tension was palpable as both participants and spectators watched intently, with every piece on the board playing a pivotal role.



Bhavya and Abhilasha emerged victorious after a tense and meticulous final, demonstrating an exceptional ability to plan and execute strategies. The mental fortitude required in Chess made this event a true test of patience and concentration.

### Carrom: Precision and Concentration



Carrom was another competition that demanded precision, patience, and a steady hand. The players showcased their exceptional skills in flicking coins with remarkable accuracy, carefully aiming for the pocket while keeping an eye on their opponent's moves. The tournament was a captivating blend of skill, strategy, and concentration, with players engaging in tactical moves to outsmart their opponents. In the end, Ruchit and Rutvik emerged as the winner, having displayed exceptional control over the coins and strategy to win the match.

### Relay Race: Teamwork and Speed in Perfect Harmony

The Relay Race was a thrilling showcase of speed and teamwork. Runners passed the baton in perfect synchronization, their teamwork ensuring that every transition was smooth and efficient. Each runner gave their best, striving to finish their leg of the race with speed and precision, while relying on their teammates to carry the baton to the next runner.



The Girls team comprising Shreya Kanani, Shreya Viramgama, Hetal Jani, and Mansee Patel; the Mixed team comprising Shreya Kanani, Shreya Viramgama, Aditya Kumar, and Avadh Chhatbar; and the Boys team comprising Aditya Kumar, Tahil Chandava, Yuvraj Singh, and Sujal Patel each crossed the finish line first in their respective categories — a result of seamless teamwork, speed, and determination. Their victory was a perfect example of how collaboration and coordination can turn a simple race into a triumphant moment.

### Tri-Leg Race: Fun and Coordination

The Tri-Leg race was a hilarious yet challenging event that required participants to coordinate their movements. With three people from each team tying their legs together, they had to work in perfect sync to move forward, navigating obstacles and aiming to cross the finish line first. The atmosphere was lighthearted, yet everyone took the event seriously, ensuring that teamwork and coordination prevailed. The Boys team comprising Dixit and Dhruv, the Girls team comprising Liza and Shreya Kanani, the Mixed team comprising Dixit and Liza, and the Faculty team comprising Dr. Jagravi and Dr. Vaishakhi claimed victory in this fun event, showcasing their teamwork and ability to work together effectively. Together, all while having a great time.

### Basketball: A Thrilling Contest of Skill and Teamwork



Basketball was a high-energy event, with teams showcasing their skills in dribbling, shooting, and

defending. The matches were fast-paced, with players working tirelessly to get the ball through the hoop while also defending their own basket. The intensity of the games was incredible, and the skill level on display was nothing short of impressive. Players demonstrated remarkable teamwork, with perfect passes, strategic plays, and breathtaking dunks.

### **Kabaddi: Strength, Agility, and Strategy**



Kabaddi was a thrilling event, where players combined strength, agility, and clever tactics. The game required quick thinking and sharp reflexes as players had to tag opponents while evading their capture. The intensity of the matches kept everyone on the edge of their seats, with each point being fiercely contested.

### **Tug of War: The Ultimate Test of Strength and Unity**

The Tug of War event was a true test of strength and unity. Teams worked together to pull the rope with all their might, relying on their physical power as well as their ability to coordinate and maintain a steady pull. The event was as much about teamwork as it was about sheer strength.

### **Women's Cricket: Empowering Talent and Determination**



The Women's Cricket tournament was an inspiring display of talent, determination, and strength. The female athletes showcased incredible skill, from

powerful bowling to flawless batting, making every match a thrilling contest. Their dedication and competitive spirit were truly empowering. The team comprising Yashvi, Shikha, Yuvi, Tanya, Tushya, Kriyanshi, Mahi emerged as the champions, with a remarkable all-around performance that inspired everyone present.

### **Kho-Kho: Speed and Agility in Full Display**



Kho-Kho was an exciting blend of speed, agility, and strategic inking. Teams had to sprint, dodge, and outsmart their opponents to capture them. The game was full of intense action, as players displayed incredible reflexes and stamina while trying to tag opponents or evade capture.

### **A Heartfelt Thanks**

As the remarkable Sports Week, the organizing team like to express our deepest gratitude to all the participants, staff, and faculty members who made this event a grand success. Special thanks to our Dean, Dr. Ankur Zalawadiya, and Additional Dean, Dr. Darshan Dave, for their unwavering support and encouragement. Their leadership and dedication are the backbone of this incredible event. A big thank you to all the students who participated, volunteered, and cheered. Your enthusiasm and sportsmanship made this week unforgettable. We look forward to even greater success in the years to come!

# Empowering Communities through Awareness and Action

On January 23, 2025, as a part of Cervical Cancer Awareness week celebration, the Department of Community Medicine at GMERS Medical College, Gandhinagar, under the visionary leadership of Dr. Ankur Zalawadia, Dean, and Dr. Jignesh Chauhan, Professor and Head of the Department of Community Medicine, organized a community-focused event at Nardipur village under family adoption Program. The event aimed to promote awareness, early detection, and care for cervical cancer.



## Cervical Cancer Screening Camp

The day's highlight was the Cervical Cancer Screening Camp which was organized at Ayushyman Arogya Mandir of Nardipur village. The Screening Camp was inaugurated by Dr. Ankur Zalawadia and Dr. Jignesh Chauhan. It was possible with seamless coordination by Dr. Nilesh Thakor, in collaboration with the Chief District health officer (CDHO) Gandhinagar, Taluka Health Office, Kalol, and GCRI, Ahmedabad. The camp screened 35 women for HPV genotype, emphasizing early detection and care. Out of these, 4 women were detected HPV infection, and they were referred to higher center for further investigation. Education was given about the importance of cervical cancer screening and further requirement of follow up to all beneficiaries of the camp. They were also explained about the risk factors of cervical cancer and symptoms for early detection, availability of screening methods and frequency etc. Signification of vaccination for prevention of cervical cancer was also explained by faculties of the department.

## Cancer Awareness Rally & Poster Exhibition



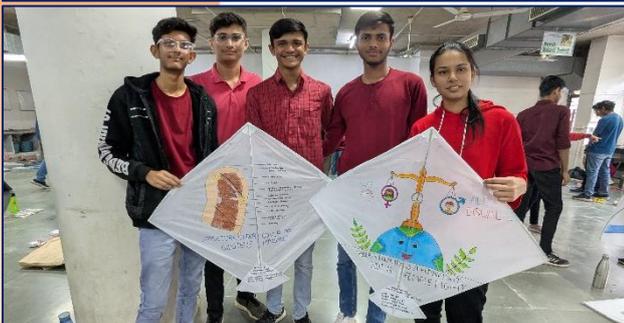
MBBS students of phase II batch 2023-24 led a Cancer Awareness Rally, educating villagers with slogans and banners, followed by an impactful poster exhibition on oral, cervical, breast and colon cancer, which was highly appreciated by all.

This initiative showcased the power of leadership, collaboration, and the commitment of GMERS Medical College, Gandhinagar to create healthier communities while inspiring future doctors to lead with compassion and action.

# Join Hand and Step Together

On January 9, 2025, GMERS Medical College, Gandhinagar, hosted an engaging and educational event titled "Join Hand and Step Together." The event aimed to combine fun with learning by involving students in creative and interactive activities centered around the theme of human anatomy and social awareness. The event was designed to enhance both the academic and social perspectives of students while encouraging teamwork and creativity.

The first part of the event involved a Multiple-Choice Question (MCQ) test, which was focused on anatomical knowledge, particularly related to the upper and lower limbs. It offered an excellent opportunity for the students to test their knowledge in a fun, competitive way. The MCQ test not only assessed the students' understanding of the human body but also sparked curiosity and further interest in anatomy, a vital subject in medical education. Following the MCQ test, the students participated in a unique and creative activity involving the drawing on kites, two kites to each participant, with each kite having a specific theme. The first kite was dedicated to the anatomical drawing of the upper or lower limb. Students were encouraged to illustrate the bones, muscles, joints, and other relevant structures that make up these important parts of the human body. This activity allowed participants to visualize the complex anatomy in a simple and enjoyable format while reinforcing their academic knowledge.



The second kite focused on a social message related to

the upper and lower limbs. Students were tasked with illustrating a message that could raise awareness about various important social causes. The goal was to inspire students to think beyond the academic realm and apply their knowledge to real-world issues. These social messages served to encourage students to use their medical knowledge for community awareness and social good. The kite drawing activity was a delightful fusion of creativity and education. It not only allowed students to demonstrate their artistic skills but also provided them with an opportunity to reflect on important health issues. It created an interactive environment where students could collaborate with their peers, exchange ideas, and learn in a non-traditional, fun setting.



The event concluded with a group discussion where students shared their artistic creations and the social messages they had illustrated. This segment highlighted the significance of combining creativity with learning and served as a platform for students to express their thoughts on improving health awareness. Overall, the "Join Hand and Step Together" event at GMERS Medical College, Gandhinagar, was a tremendous success. It effectively blended academic knowledge with creative activities, fostering both intellectual growth and social consciousness among the participants. The event was a testament to the college's commitment to promoting holistic learning that extends beyond textbooks, preparing students for both professional and community-oriented roles.

# Comprehensive Health Check-up Camp at Gujarat Vidhansabha

A Vidhansabha Health Camp was organized by the Honorable Gujarat Vidhansabha President, Shri Shankarbhai Chaudhary, for ministers, MLAs, press staff, and other support staff of the Vidhansabha on March 18 and 19, 2025, from 9:00 a.m. to 9:00 p.m. The camp was conducted under the supervision of Dr. Meeta Parikh, Medical Superintendent, GMERS Medical College and General Hospital, Gandhinagar, ensuring seamless coordination and high-quality healthcare services.



A total of 67 medical professionals, including doctors, nurses, technicians, pharmacists, attendants, and other support staff, were deputed from various clinical departments such as Medicine, Surgery, ENT, Ophthalmology, Orthopedics, Obstetrics & Gynecology (OBGY), Dental, and Laboratory Medicine (Pathology, Biochemistry & Microbiology) from our institute, to facilitate comprehensive health check-ups.



Throughout the two-day camp, various clinical departments provided medical consultations and screenings. The various departments like, medicine, surgery, ophthalmology, dental, orthopedic, OBGY and

dermatology had examined 313, 36, 358, 197, 151, 76 patients, and 188 patients, respectively. In addition to consultations, a total of 571 laboratory samples were collected—with 86 samples collected on the first day and 485 samples on the second day.

The Laboratory Medicine Department conducted an extensive range of diagnostic tests as part of the General Body Profile, which included Complete Blood Count (CBC), Fasting Blood Sugar/Random Blood Sugar, Lipid Profile, Liver Function Tests, Renal Function Tests, HbA1c, Uric Acid, and Urine Routine & Microscopy. Additionally, specialized tests such as Thyroid Function Tests, Vitamin B12, Vitamin D3, Iron, Ferritin, C-Reactive Protein (CRP), Homocysteine, Rheumatoid Factor, and Beta hCG were performed for many of the participants over both days. The Pathology, Biochemistry, and Microbiology departments efficiently managed a heavy workload of approximately 1,700 samples, resulting in around 18,000 diagnostic tests being processed. Despite the demanding nature of the task, all reports were generated and dispatched within the defined time frame at the Vidhansabha Sankul, ensuring timely access to health information for all participants.



This meticulously organized health camp not only provided comprehensive medical evaluations but also reinforced the commitment of our institute to delivering quality healthcare services.

# Training of Trainers on Integrated Management of Neonatal and Childhood Illness (IMNCI): A Step Towards Reducing Child Mortality

A five-day Training of Trainers (ToT) on Integrated Management of Neonatal and Childhood Illness (IMNCI) was organized by the District Taluka Team (DTT), Gandhinagar, in collaboration with the State Institute of Health and Family Welfare (SIHFW), Vadodara, from January 27 to January 31, 2025. The primary objective of this training was to equip healthcare professionals with the necessary skills and knowledge to manage neonatal and childhood illnesses effectively, ultimately reducing morbidity and mortality in children under five years of age.

India continues to struggle with a high Infant Mortality Rate (IMR) of 28 per 1,000 live births and an Under-Five Mortality Rate (U5MR) of 32 per 1,000 live births (SRS 2020). Neonatal mortality contributes to over 73% of infant deaths, with the majority occurring within the first week of life. Additionally, the second month of life remains a critical period, with mortality rates higher than those observed in later childhood. The leading causes of under-five mortality include perinatal complications, neonatal sepsis, acute respiratory infections, diarrhea, and malnutrition, with many children suffering from multiple illnesses simultaneously. Early identification, appropriate management, and timely referral to healthcare facilities are crucial in preventing these deaths.

The IMNCI strategy takes a comprehensive approach to child healthcare by integrating the assessment, classification, and management of major illnesses in neonates and young children. This strategy also incorporates the evaluation of nutritional and immunization status, ensuring a well-rounded approach to disease prevention and health promotion. By combining both preventive and curative measures, IMNCI helps in significantly reducing childhood mortality rates.

During the mid-1990s, the World Health Organization (WHO), UNICEF, and other global health agencies developed the Integrated Management of Childhood

Illness (IMCI) strategy to improve child survival rates. Initially designed to enhance curative care, the strategy was later expanded to include nutrition, immunization, and preventive healthcare practices. Recognizing the crucial role of neonatal care, India further refined this approach by including newborns, leading to the development of Integrated Management of Neonatal and Childhood Illness (IMNCI). The strategy aims to reduce mortality, minimize disease severity, prevent disabilities, and promote optimal growth and development.



The training program was coordinated by Dr. Anil Chauhan (Senior Medical Officer, DTT Gandhinagar) and conducted with the active participation of faculty members from GMERS Medical College, Gandhinagar. Under the guidance of Dr. Geet Gunjan (Professor & Head, Department of Pediatrics) and Dr. Jignesh Chauhan (Professor & Head, Department of Community Medicine), two key faculty members served as resource persons: Dr. Dipal Patel (Assistant Professor, Pediatrics); and Dr. Kavita Banker (Assistant Professor, Community Medicine).



A total of 47 healthcare professionals, including 33 medical officers and 14 staff nurses, participated in this training. These frontline healthcare providers play a pivotal role in ensuring the successful implementation of IMNCI protocols in their respective healthcare facilities.



The training followed a multi-modal teaching approach to ensure active learning and practical application. Various teaching methodologies were employed, including self-reading by trainees, live demonstrations, video-based learning, role-playing exercises, case studies, and photographic exercises. Participants also received clinical exposure through sick infant visits at the SNCU (Special Newborn Care Unit) and pediatric ward at GMERS Hospital, Gandhinagar. This hands-on approach allowed the participants to apply theoretical knowledge in real-world clinical settings, reinforcing their learning and improving their ability to manage childhood illnesses effectively.



The program concluded with a certificate distribution ceremony, where participants shared their experiences and insights gained during the training. The event was graced by the esteemed presence of Dr. R. D. Patel (Director, SIHFW), Dr. A. J. Vaishnav (Chief District Health Officer, Gandhinagar), and Dr. Gautam Nayak (Additional District Health Officer, Gandhinagar). These senior officials emphasized the critical role of IMNCI in improving child healthcare at both facility and community levels, highlighting the importance of training and capacity building among healthcare workers.



The success of this training program was made possible with the strong institutional support provided by Dr. Meeta Parikh (Superintendent, GMERS Medical College & General Hospital, Gandhinagar) and Dr. Ankur Zalawadia (Dean, GMERS Medical College, Gandhinagar). Their continuous encouragement and facilitation played a key role in ensuring the seamless execution of the training sessions.

This five-day Training of Trainers on IMNCI marked a significant step in enhancing the clinical skills of healthcare providers involved in neonatal and pediatric care. By strengthening their knowledge and practical expertise, this initiative directly contributes to reducing child morbidity and mortality rates in Gujarat. Moving forward, continuous training, implementation, and collaboration between medical colleges and public health institutions will be essential to ensuring that IMNCI protocols are effectively implemented across healthcare facilities. This training not only provided healthcare professionals with practical tools to manage neonatal and childhood illnesses but also reinforced their commitment to improving child health outcomes.

# Moot Court Session: A Novel Teaching-Learning Approach

The Department of Forensic Medicine and Toxicology of GMERS Medical College, Gandhinagar, conducted a Moot Court Session—a newer teaching-learning method—for Phase II and Phase III Part I MBBS students on February 8, and February 27, 2025, respectively.

This session aimed to spread awareness among undergraduate medical students about the actual legal procedures followed in a court of law. The session covered key aspects such as the issuance of summons, roles of doctors, prosecution and defense lawyers, production of crime weapons in the courtroom, role of the judge, and justification of each matter presented before the court.

Faculty members from the department provided students with a hypothetical post-mortem report along with necessary questionnaires for prosecution and defense lawyers. Students actively participated in their respective roles as doctors, lawyers, police officers, court clerks, typists, and judges.

These sessions offered students a realistic insight into the courtroom environment and familiarized them with various procedures, including issuance of summons, oath-taking, examination-in-chief, cross-examination, re-examination, re-cross-examination, and judicial questioning.



To assess their understanding of the topic, a question-and-answer session was conducted at the end of each moot court, which demonstrated the students' enhanced grasp of legal proceedings.



The event witnessed active participation from both faculty members and students, who played a crucial role in ensuring its success. Through such activities, the Department of Forensic Medicine and Toxicology aims to sensitize undergraduate medical students to real courtroom scenarios, enhance their understanding of legal procedures, and eliminate the fear of cross-examination when they have to attend court in the future.

# Pioneering Role at the 1<sup>st</sup> Regional GRIP Summit 2025

The 1<sup>st</sup> Regional GRIP (Good, Replicable, Innovative Practices) Summit 2025 of the Gandhinagar Region was organized on March 25, 2025, at the Gujarat Institute of Disaster Management under the leadership of the Regional Deputy Director, Health & Medical Services, Gandhinagar. This summit provided a dynamic platform to showcase good, innovative, and replicable practices implemented at different levels of health care system. The summit featured three key categories: Medical Education, Public Health, and Family Welfare, wherein our institute, made a remarkable impact with its active participation and outstanding achievements.

In the Medical Education category, two practices from our institute were selected for presentation:

- “*Research Methodology Workshop with Hands-on Training for Postgraduate (PG) Medical Students*” – Presented by Dr. Darshan J. Dave (Professor & Head, Department of Pharmacology) on behalf of the Central Research Committee (CRC) and Institutional Ethics Committee (IEC) of the institute. His presentation generated significant interest and discussion among participants and jury members. A crucial point of deliberation was the potential for collaboration between medical colleges and peripheral health centers (PHCs & CHCs) to enhance research initiatives in rural healthcare settings.
- “*Selection Process of Elective Modules by MBBS Students*” – Presented by Dr. Amit M. Shah (Associate Professor, Department of Pharmacology) on behalf of the Elective Committee of the institute. His presentation highlighted the structured approach and student engagement in selecting elective modules, enhancing medical education quality and competency-based learning.

Among the many impactful presentations, Dr. Darshan J. Dave’s research methodology workshop stood out, earning him the First Prize in the Medical Education

category for its structured, hands-on approach to enhancing postgraduate research skills.



In the Family Welfare category, another significant recognition was awarded to Dr. Nehal Gajera (Ayush-MO, District Health Office - Gandhinagar) for the practice “*Dedicated Action for Maternal Awareness.*” This initiative, conducted in collaboration with the Department of Obstetrics and Gynaecology at our institute, received the First Prize for its impactful contributions toward maternal health awareness and improved obstetric care.

Apart from the notable achievements in Medical Education and Family Welfare, our faculty members played a pivotal role in the 1<sup>st</sup> Regional GRIP Summit 2025 by actively contributing as jury members in different sessions. Dr. Meeta Parikh (Medical Superintendent), Dr. Geet Gunjan (Professor & Head, Department of Paediatrics), and Dr. Nikhil Anand (Professor & Head, Department of Obstetrics & Gynaecology) lent their expertise in evaluating various innovative practices presented at the summit.

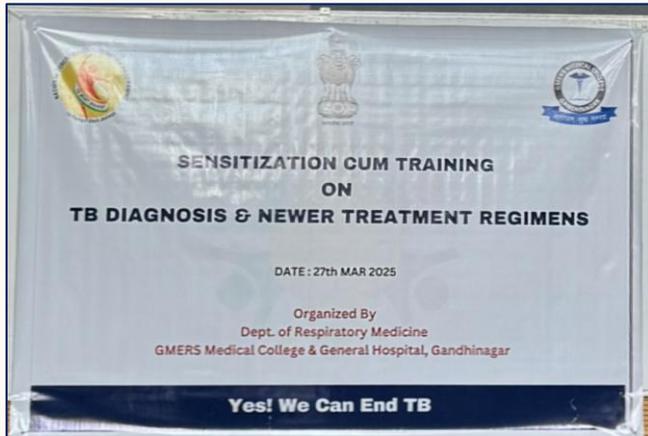
The 1<sup>st</sup> Regional GRIP Summit 2025 successfully highlighted pioneering initiatives in medical education and healthcare delivery, with our institute, taking a leading role in innovation and excellence.



# CME on “Training of Faculties & Residents on NTEP”

The Department of Respiratory Medicine successfully conducted CME on the “Training of Faculties & Residents on NTEP” on March 27, 2025, from 3:00 PM to 5:00 PM. The session aimed to enhance the knowledge of faculty members and resident doctors regarding the diagnosis and treatment of tuberculosis, especially multidrug resistant tuberculosis.

Medicine had discussed in detail about the diagnostic algorithm of TB while Dr. Darshan J. Dave had discussed about BPaLM regimen.



The CME was concluded by vote of thanks by Dr. Kaushal Bhavsar, Nodal officer, NTEP, GMERS Medical College, State Task Force-Gujarat.

More than 80 participants including faculties, senior residents and junior residents had actively participated in this CME. Initially Dr. Nilesh Thakor, Professor (H.G.) in Community Medicine had given insight on epidemiological aspect of TB in India. This session was followed by a diagnostic approach of TB by Dr. Shashi Mundhra, Associate Professor of General Medicine. Dr. Gunjan Upadhyay, Professor & Head of Respiratory



# Enhancing Learning: Near Peer Assessment

On March 27, 2025, the Department of Anatomy, GMERS Medical College, Gandhinagar, organized the student activity "Near Peer Assessment." This initiative focused on peer assessment, where students evaluated the exam answers of their colleagues, assigning scores based on predefined rubric under faculty supervision. The activity aimed to enhance students' critical thinking, fairness, and evaluative skills while fostering a deeper understanding of the subject.



Once the peer assessments were completed, the top 20 students, based on collective scores, advanced to the next round. This phase served as a showcase of high achievers, who then demonstrated their skills in the final round. Ultimately, the top three students who consistently performed well across multiple assessments were selected and awarded a trophy and certificate in recognition of their excellence. At the end of the activity, student feedback was collected via Google Forms to evaluate the effectiveness of the initiative.



The Near Peer Assessment activity successfully promoted healthy competition, peer learning, personal growth, and constructive collaboration, reinforcing the importance of student-driven evaluation in medical education.

# Glimpses – Department of Anaesthesia

The Department of Anaesthesia, GMERS Medical College and General Hospital, Gandhinagar proudly welcomes its first batch of eleven postgraduate students this year, increasing its intake to six students since 2020. We provide high-quality academic experience, strictly adhering to the National Medical Commission (NMC) curriculum. Our committed faculty ensures that all essential competencies outlined in the NMC guidelines are effectively imparted.

As a tertiary care hospital, we provide comprehensive anaesthesia services across various surgical specialties, super-specialties, critical care, casualty services, pain management, and perioperative care. Our focus remains on delivering quality patient care while fostering academic and clinical excellence among students and faculty members.

## Community Outreach: Basic Life Support Training

We take pride in our community training initiatives, having trained over 15,000 individuals in basic life support (BLS) skills. Our outreach efforts have benefited:

- Teachers
- Police department personnel
- Private sector employees
- Undergraduate and postgraduate students
- Nursing staff
- Paramedics

## Case Series: Labour Analgesia



Dr. Dhara Patel conducted a case series on labour analgesia in 10 patients, using Ropivacaine 0.2% (10-12

ml) with Fentanyl 25 µg via epidural catheter at the L3-L4 level during 3-4 cm cervical dilatation. The study recorded a 100% patient satisfaction rate on the Visual Analog Scale (VAS), with no perinatal morbidity or surgical instrumentation required. This underscores best practices and advancements in pain management during labour.

## Elective Modules for MBBS Students



In Block 2, we conducted elective postings for final-year MBBS Phase II students, covering four key modules:

- Basic Life Support
- General Anaesthesia
- Spinal Anaesthesia
- Fluid Therapy

Each module had four students, who received practical training inside the operation theatre in the morning hours and theoretical sessions in the afternoon. The activities were recorded in a logbook, and formative assessments were conducted to evaluate their progress.

## International Women's Day 2025 Celebration

The Department of Anaesthesia celebrated International Women's Day 2025, honoring the strength, determination, and resilience of women in the medical field. The event was graced by eminent faculty members

from other departments, including Dr. Tarlika Doctor (Professor & Head, Department of Emergency Medicine) and Dr. Bela Padhiyar (Professor & Head, Department of Dermatology).



### Academic Achievements: MD Qualification Success

We are delighted to announce that all our final-year postgraduate students have successfully qualified for their MD degrees, reflecting our department's

commitment to academic excellence and rigorous training.

### Publication Achievements

The Department of Anaesthesiology proudly announces a significant academic achievement with a research article authored by Dr. Faizal Rafik Kureshi (Senior Resident) being published in the International Journal of Anaesthesiology (2025, Vol. 8, Issue 1). The study, titled "Efficacy of Phenylephrine in Preventing Hemodynamic Responses of Oxytocin During Caesarean Section Under Spinal Anaesthesia: A Randomized Comparative Study," evaluates phenylephrine's role in stabilizing maternal hemodynamics during oxytocin administration, a common challenge in obstetric anaesthesia. This prestigious publication is co-authored by Dr. Shobhana Gupta; Dr. Bharti Rajani; Dr. Urvashi Patel; and Dr. Mukund Patel.

The Department of Anaesthesiology takes immense pride in fostering a culture of research and innovation. This remarkable achievement serves as an inspiration for faculty and students, reinforcing the importance of academic contributions in shaping modern medical practice. We look forward to more groundbreaking research in the future.



# Workshop on Supraglottic Airway Devices: Enhancing Airway Management Skills

On March 5, 2025, the Department of Anaesthesiology successfully conducted a three-hour CME workshop, titled "LMA – An Alternative for Airway Management." The session aimed to enhance the knowledge and skills of postgraduate students, senior residents, and faculty members in the effective use of supraglottic airway devices (SADs), particularly Laryngeal Mask Airways (LMAs).

In anaesthesia practice and emergency airway management, the endotracheal tube (ETT) is considered the gold standard for securing the airway. However, in cases of difficult airway scenarios, the LMA serves as an essential alternative. It provides a conduit between a face mask and ETT, ensuring adequate ventilation in operation theaters, emergency rooms, and intensive care units (ICUs).

The theoretical session of the CME was delivered through PowerPoint presentations, covering key aspects

such as the history of LMA, different types and sizes, indications, insertion techniques, troubleshooting, and associated complications. This provided a strong conceptual foundation for all participants.

A hands-on training session on manikins simulated real patient scenarios, allowing participants to practice insertion techniques and develop proficiency in securing the airway with LMAs. The interactive nature of this session ensured practical application and skill refinement.

The workshop proved to be a valuable learning opportunity, equipping faculty members and postgraduate trainees with theoretical knowledge, hands-on experience, and improved competency in airway management. By integrating education with skill-based training, this CME significantly contributed to enhancing patient safety and optimizing airway management strategies in clinical practice.



# Dubai to Gandhinagar: Unmasking Hypersensitivity Pneumonitis Through Detailed History-Taking

A 59-year-old woman, educated up to the 10<sup>th</sup> standard and belonging to a low socio-economic background, came to GMERS General Hospital, Gandhinagar in November 2024 seeking medical treatment. She had been working in Dubai as a full-time caretaker in a native household, although her permanent residence was in Gandhinagar. Her chief complaints were cold, cough, fever, and breathlessness for the past 20 days. Previously asymptomatic, her illness began with flu-like symptoms, starting with a dry cough and cold. These symptoms showed no seasonal pattern and did not respond to over-the-counter medications. Gradually, she developed progressive breathlessness that was exacerbated by exertion and did not improve with inhalers/nebulization provided by doctors in Dubai.

Concerned about her worsening condition, she returned to India and sought care from the Respiratory Medicine Department of GMERS Medical College, Gandhinagar. Despite initial treatment with antibiotics, bronchodilators, and oxygen, there was little improvement. A plain CT thorax was performed, revealing bilateral ground-glass opacities, a few areas of consolidation and reticulation, and traction bronchiectasis in the lower lobes. These findings pointed towards an acute-on-chronic pathology, leading to worsening respiratory distress. She was subsequently shifted to the ICU and put on BiPAP support for oxygenation.

Her medical history revealed no major past illnesses or surgeries, and she was not on any long-term medications. Her ECG, 2D Echo, and routine blood tests,

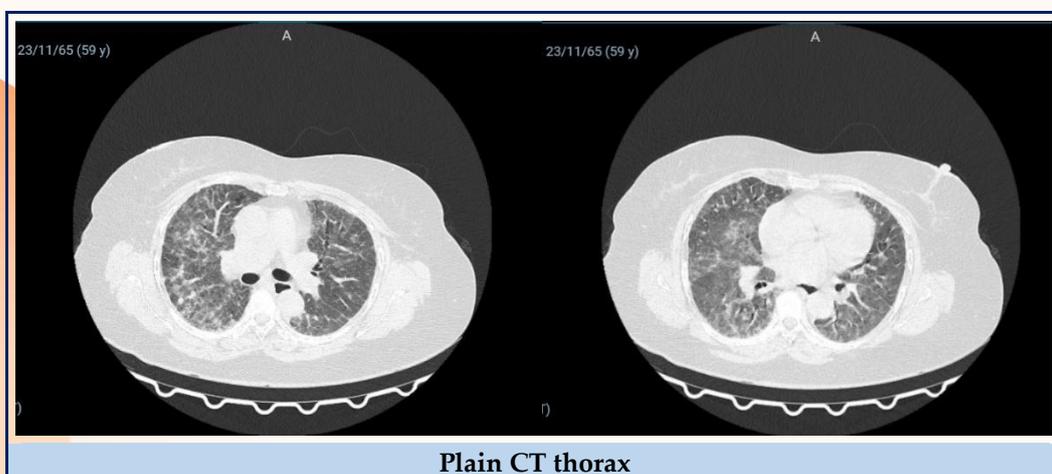
including CBC, serum creatinine, liver function tests, and electrolytes—were all within normal limits. HIV and Hepatitis B tests were negative.

Given the lack of improvement and inconclusive initial findings, the medical team revisited her history, this time focusing on potential exposure to antigens. It was discovered that the patient had been working in a household with nine pets (5 cats and 4 dogs) all with long fur and in close contact with her. This critical detail raised the suspicion of Hypersensitivity Pneumonitis (HP) as the underlying cause of her illness.

She was promptly treated with intravenous hydrocortisone (200 mg stat), followed by intravenous dexamethasone (16 mg/day) for a week, which was then tapered to 8 mg/day for another week. Subsequently, she was shifted to oral prednisolone (40 mg/day). Her condition began to improve steadily—she was weaned off BiPAP and oxygen over the course of three weeks. She was eventually discharged in good health on oral prednisolone (20 mg/day), which was tapered and discontinued by the end of January 2025.

The patient was strongly advised not to return to her previous job and to avoid similar antigen exposures in the future. Regular follow-up was recommended, as patients with HP are prone to recurrent allergic responses and long-term pulmonary complications.

**Take-Home Message:** *The art of detailed history-taking can be both a game-changer and life-saving.*



# Hope Never Ends: A Remarkable Recovery from Severe Ocular Trauma

A 22-year-old girl from Anodiya village (Mansa) presented to the Ophthalmology Department at GMERS General Hospital, Gandhinagar, with pain, watering, and decreased vision in her right eye following a wooden stick injury sustained while cutting wood on her farm. Despite using eyedrops prescribed at a peripheral center, her condition did not improve.

On clinical examination, she could only perceive light in her right eye. Her eye appeared fiery red, and a slit-lamp evaluation revealed severe ciliary congestion, a sealed corneal tear, a fungal corneal ulcer with hypopyon, and vitritis. Her left eye was normal. Recognizing the severity of the infection, she was immediately admitted and started on intensive treatment, including oral and topical antifungal agents, antibiotics, cycloplegics, and supportive therapy.

Despite initial efforts, there was minimal improvement. Given the resistance of the fungal infection, she was administered three subconjunctival injections of fortified Voriconazole (a potent antifungal agent) under topical anaesthesia while continuing her existing treatment. Within a week, the hypopyon started disappearing, her visual acuity improved, and the corneal ulcer showed signs of healing. She felt symptomatically better, and with further progress, she was discharged with a tailored medication plan and scheduled for frequent follow-ups.

With constant supervision and careful titration of medications, her condition continued to improve. After one month, her visual acuity dramatically improved from only perceiving light (PL, PR) to an astonishing 6/9. The corneal ulcer and vitritis had healed completely,

leaving only a small scar—a miraculous outcome for such a severe case.



Post treatment picture of the eye with small corneal scar

This remarkable recovery was made possible through the meticulous efforts of our dedicated team of doctors, including Dr. Jigish Desai (Head of Department), Dr. Shilpa Bhatt, Dr. Mittal Kucchadiya, Dr. Bhargavi Parth, Dr. Khushi Shah, Dr. Gaurav Brahmabhatt, Dr. Sipra Engineer, along with all residents and the ophthalmology staff.

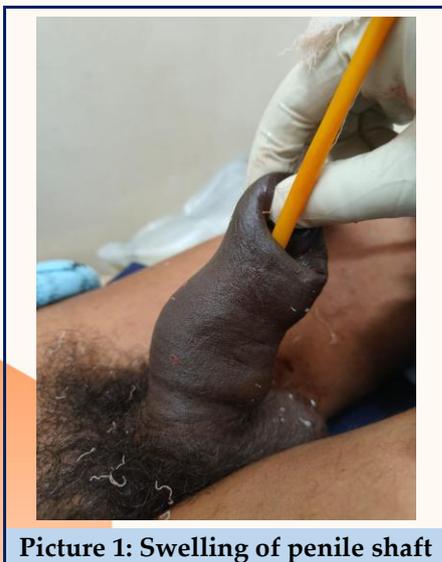
This case highlights the importance of early intervention, specialized care, and persistent efforts in treating sight-threatening infections. It is a testament to the power of modern medicine and the unwavering commitment of healthcare professionals—because truly, in the field of medicine, hope never ends!

# Penile Fracture: A Rare Case of Accidental Injury and Surgical Management

The case involves a 22-year-old male who presented with acute pain, swelling, and a visibly deformed penis following an accidental injury while sleeping. Clinical examination confirmed a diagnosis of penile fracture, necessitating surgical repair of the corpus cavernosum. The patient had an uneventful post-operative recovery and was provided with appropriate post-operative care instructions.

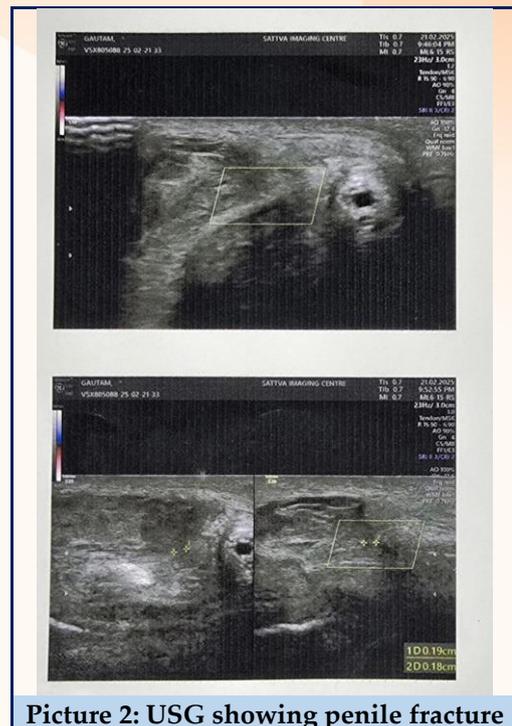
Penile fracture is a distinctive clinical entity that typically results from blunt trauma to an erect penis, often accompanied by an audible “snap” or “pop,” immediate pain, and rapid loss of erection. On physical examination, common findings include visible swelling, bruising (ecchymosis), and a characteristic penile deformity, often described as an “eggplant deformity” due to the discoloration and shape of the injured organ.

While the diagnosis of penile fracture is primarily clinical, imaging studies such as ultrasound or magnetic resonance imaging (MRI) may be utilized in complex cases to assess the extent of injury and rule out associated complications.



Picture 1: Swelling of penile shaft

Upon admission, the patient underwent urinary catheterization with a 16 French (F) Foley catheter to facilitate urine drainage and monitor urine output. He was managed conservatively with analgesics and antibiotics before undergoing surgical repair.



Picture 2: USG showing penile fracture

A comprehensive preoperative evaluation was conducted, including complete blood count (CBC); renal function tests; urine routine and microscopic examination; and serological investigations. All results were within normal limits, and the patient had no significant past medical or surgical history. Additionally, there were no associated comorbidities that could impact the management or outcome of his condition.

Surgical repair is the gold standard treatment for penile fractures. The primary goals of surgery are to:

- Evacuate hematoma
- Meticulously repair the ruptured tunica albuginea
- Ensure proper healing and restoration of penile anatomy and function
- Minimize complications associated with delayed or conservative management

Timely intervention plays a crucial role in optimizing outcomes. Early surgical repair—ideally within hours to a few days of injury—has been associated with superior functional recovery and reduced morbidity. Delays in treatment can increase the risk of erectile dysfunction, penile curvature, and other complications.

In this case, a careful surgical exploration of the penile area was performed in the operation theatre. A 2-3 mm defect was identified in the inferolateral tunica albuginea, accompanied by a hematoma. The defect was repaired using PDS sutures, ensuring proper alignment and closure (as illustrated in pictures 3 and 4).



**Picture 3: Penile shaft fracture after degloving of penis**



**Picture 4: Defect closed with PDS**

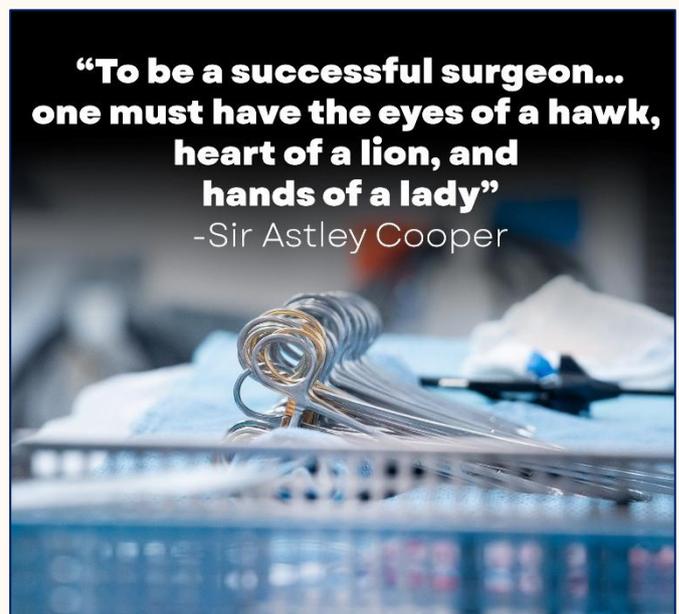
The Foley catheter was removed on the second postoperative day. The patient experienced an uneventful recovery with no immediate post-operative

complications. Following a thorough assessment, he was discharged from the hospital with post-operative care instructions. The patient was prescribed: a course of oral antibiotics to prevent infection; and analgesics for pain management. Additionally, the patient was instructed to avoid sexual activity for approximately three months to ensure proper healing and minimize the risk of re-injury.

Penile fractures are relatively rare, with an incidence often underreported in some regions, including Pakistan. The case underscores the importance of prompt recognition, accurate diagnosis, and timely surgical intervention to optimize patient outcomes.

The successful management of this case was made possible by the expert contributions of Dr. Pratik Shah (Associate Professor); Dr. Abhijit Yadav (Assistant Professor). Additionally, the dedication and support of Dr. Vignesh (R3); Dr. Sheetal (R3); and Dr. Chirag (R2) played a pivotal role in patient care, significantly contributing to the overall success of the case.

This case serves as a valuable clinical reference, reinforcing the necessity for rapid assessment, surgical intervention, and adherence to post-operative protocols in managing penile fractures effectively.



# Challenging Anaesthesia Cases: A Review of Complex Perioperative Management

Anaesthesia management for complex surgical cases presents unique challenges that require meticulous planning and individualized approaches. Here, we present two notable cases that highlight the importance of perioperative decision-making, risk assessment, and anaesthesia techniques to optimize patient safety and surgical outcomes.

## Case 1: Anaesthesia for Right Total Hip Replacement in a Postpartum Female

The first case involved a 30-year-old postpartum female diagnosed with avascular necrosis (AVN) who underwent total hip replacement (THR) under regional anaesthesia. Her preoperative challenges included severe anemia (Hb: 7 g/dL), altered liver function (total bilirubin: 2.46 mg/dL), and a history of lower segment cesarean section (LSCS) just one month prior. Since anemia posed a significant perioperative risk, it was corrected through preoperative blood transfusion. A subarachnoid block (SAB) using 2.9 ml of 0.5% hyperbaric bupivacaine with 5 mcg dexmedetomidine was administered to provide effective sensory blockade, hemodynamic stability, and prolonged postoperative analgesia, while also reducing polypharmacy risks and minimizing airway complications. The surgery lasted for two hours, during which one unit of packed cell volume (PCV) was administered intraoperatively. The patient remained hemodynamically stable throughout the procedure, with adequate pain relief and no neurological or hemodynamic complications postoperatively. The case demonstrated the effectiveness of regional anaesthesia in managing complex postpartum cases, ensuring both patient safety and optimal pain control.

## Case 2: Anaesthesia Management for Dynamic Hip-Screw in a Patient with Communicating Hydrocephalus

The second case involved a 57-year-old female who presented with hip pain following a fall and was

diagnosed with a hip fracture requiring dynamic hip screw fixation. Her medical history included hypertension (controlled with nifedipine), an acute ischemic stroke (two months prior), and communicating hydrocephalus. She was on antiplatelet therapy (aspirin and clopidogrel), which was stopped 10 days preoperatively to reduce bleeding risks. Neuroimaging (NCCT Brain and MR Angiography) revealed an infarct in the frontal and periventricular regions, dilation of the ventricles, vertebral artery narrowing, and brainstem deviation due to chronic ischemic changes. Given her neurological status, regional anaesthesia was avoided to prevent potential complications, and general anaesthesia was preferred. Anaesthesia was induced using propofol and fentanyl, with muscle relaxation and intravenous dexmedetomidine to maintain hemodynamic stability and provide neuroprotection. Continuous monitoring of blood pressure, end-tidal CO<sub>2</sub> (EtCO<sub>2</sub>), and SpO<sub>2</sub> was ensured throughout the procedure. Postoperatively, pain management was achieved with intravenous Dynapar (75 mg), while opioids were minimized to prevent respiratory depression. This case underscores the significance of tailored anaesthetic strategies in patients with neurovascular comorbidities, where careful selection of anaesthetic agents and vigilant monitoring play a crucial role in ensuring a safe perioperative course.

Both cases highlight the importance of individualized anaesthesia management in high-risk patients. A thorough preoperative evaluation, selection of appropriate anaesthetic techniques, and intraoperative vigilance were pivotal in ensuring successful surgical outcomes. These cases also emphasize the role of multidisciplinary collaboration, particularly with the orthopedic team, whose cooperation was instrumental in achieving favorable results. Through such challenging cases, anaesthesiologists continue to refine their expertise in managing complex perioperative scenarios, ultimately enhancing patient safety and care.



*“Do as much as possible  
for the patient,  
and as little as possible  
to the patient.”*

*Sigmund Freud*

