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AN OFFICIAL NEWSLETTER OF GMERS MEDICAL COLLEGE, GANDHINAGAR

2024: Issue-4 (October - December)



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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



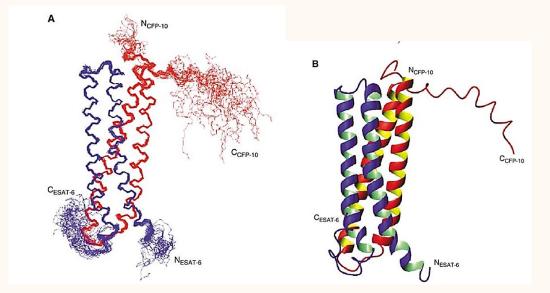
From Editorial Desk: Novel Tool for Diagnosis for Latent Tuberculosis

Tuberculosis in India remains a major public health problem. Under the national strategic plan 2017-2025, Government of India has boosted the end TB goal and has adopted a strategy to eliminate tuberculosis from India. There are 4 main pillars of the strategy: 1. TB preventive therapy (TPT) i.e. prophylaxis, 2. Early detection of TB, 3. Effective treatment and cure of TB and 4. Strengthening of the infrastructure and National TB Elimination Program.[1]

Under the pillar of TB preventive therapy (TPT), detection of latent TB and providing prophylaxis to people at risk of developing TB is crucial. Since decades we have relied on Mantoux Test which uses PPD RT-23. Recently there has been development in this area with

the identification of antigens ESAT-6 and CFP-10 which are proposed to replace conventional Mantoux test and will be known as Cy-TB test.[1]

ESAT-6 is early secretory antigenic target 6 kDa and CFP-10 is culture filtrate protein 10 kDa. They are secreted by Mycobacterium Tuberculosis and play a role in pathogenesis of tuberculosis. ESAT-6 and CFP-10 together form a complex and help in binding of M. Tb to macrophages and monocytes of host and play a role in signalling which in turn leads to modulation of the host cell behaviour. The long flexible arm formed by the C-terminus of CFP-10 was found to be essential for binding to the surface of cells which are depicted in images A and B below.[2]



Specificity	High also in BCG vaccinated	Low in BCG vaccinated	High also in BCG vaccinated		
Sensitivity	High	High	High		
Easo of uso	Field friendly, single cut-off	Field friendly, complex	Requires labs and		
Lase of use	allows simple test interpretation	test interpretation	infrastructure		
Cost of test	Low	Low	High		
Manufacturing	Robust with high yield, well defined and completely characterized	Complex old product	Complex, multiple components		
Special populations					
Children	More robust	Affected by young age	Affected by young age		
PLHIV	More robust with low CD4	Requires info on HIV status for	Affected by HIV and low CD4 count		
	Manufacturing Special populations Children PLHIV	Ease of useField friendly, single cut-off allows simple test interpretationCost of testLowManufacturingRobust with high yield, well defined and completely characterizedSpecial populationsMore robustPLHIVMore robust with low CD4	Ease of useField friendly, single cut-off allows simple test interpretationField friendly, complex test interpretationCost of testLowLowManufacturingRobust with high yield, well defined and completely characterizedComplex old productSpecial populationsMore robustAffected by young agePLHIVMore robust with low CD4Requires info on HIV		

(Adapted from: Programmatic management of TB preventive therapy (PMTPT)

Target population	Strategy		
People living with HIV			
 Adults and children > 12 months 	TPT to all (after ruling out TB disease)		
• Infants < 12 months with HIV in contact with active TB	IT I to all (after fulling out 1D disease)		
Children (HHC) below 5 years of pulmonary TB patients			
HHC 5 years and above of pulmonary TB patients	TPT among TBI positive (after r <mark>uling out TB disease)</mark>		
NEW Target population	Strategy		
Individuals who are:			
On immunosuppressive therapy			
Having silicosis	TPT among TBI positive		
On anti-TNF treatment	(after ruling out TB disease)		
On dialysis			
• Preparing for organ or hematologic transplantation			
HUC: Household contacts of microhiologically confirmed nulmonary TB cases			

HHC: Household contacts of microbiologically confirmed pulmonary TB cases.

(Adapted from: Programmatic management of TB preventive therapy (PMTPT)

Purified protein derivative used in conventional Mantoux test contains many mycobacterial antigens which are shared among nontuberculous mycobacteria (NTM), and the vaccine substrain M. bovis bacille Calmette-Guerin (BCG) which decreases its sensitivity and specificity, and it is often impossible to distinguish BCG vaccination and exposure to NTM from M. tuberculosis (M.Tb) infection. Interferon Gamma release assay (IGRA) is a better test as compared to Mantoux test but has its own limitations of cost and transport from peripheral center to a standard laboratory. These challenges are addressed in newer test known as Cy-TB test in which the antigens used are ESAT-6 and CFP-10 which are specific to M.Tb and are not present in NTM and BCG thus making the test more sensitive and specific and the process of administration is same as of Mantoux test making it easier for field staff to implement and utilize it (the only difference being indurance of 5 mm in Cy-TB is taken as cut off instead of 10 mm in Mantoux test). It is cost effective also. But it is important to note that it does not distinguish between infection and disease and so active tuberculosis needs to be ruled out first before labelling a patient as latent TB case and initiating TPT.[3]

CDSCO has already given approval for the use of ESAT-6 and CFP-10 on 16-05-2024 and Vials containing these antigens have been given to states for pilot studies. Approximately 16000 such vials are given to Gandhinagar district for testing of latent TB using Cy-TB test instead of Mantoux test as a pilot project after which it will be rolled out to whole state.[4]

Role of TB preventive therapy (TPT) i.e. was undermined and there were several concerns regarding the acceptability of TPT, side effects of drugs and emergence of drug resistance but studies have shown that risk of developing resistance is very negligible and with the roll out of new regime known as 3HP which contains a combination pill of Rifapentine and isoniazid which has to be administered on weekly basis for 3 months only, making it only 12 doses, will increase the acceptance rate with lesser side effects and even lesser change or development of resistance to these drugs. The limitation as of now is that TPT to an individual is to be given only once in lifetime and even if the same person falls under the category of target population in future again (mentioned below in table), TPT should not be repeated.[1]

Also included are Close contacts of microbiologically confirmed TB cases which are defined as people who share more than 8 hours with the patient in any closed space like office, prison, boarding schools, hostels, etc.

References:

- Adapted from: https://tbcindia.mohfw.gov.in/ accessed on 08-01-2025.
- [2] Renshaw PS, Lightbody KL, Veverka V, Muskett FW, Kelly G, Frenkiel TA, et al. Structure and function of the complex formed by the tuberculosis virulence factors CFP-10 and ESAT-6. EMBO J. 2005 Jul 20;24(14):2491-8.
- [3] van Pinxteren LA, Ravn P, Agger EM, Pollock J, Andersen P. Diagnosis of tuberculosis based on the two specific antigens ESAT-6 and CFP10. Clin Diagn Lab Immunol. 2000 Mar;7(2):155-60.
- [4] Adapted from: https://cdsco.gov.in/opencms/opencms/en/Approval_ne w/Approved-New-Drugs/ accessed on 08-01-2025.

Dr. Darshan J. Dave Professor & Head Department of Pharmacology

Cybercrime and Financial Theft: A Growing Concern in India

Cybercrime, particularly financial theft, is a rising concern in India, with scammers exploiting digital platforms to target unsuspecting individuals. For medical professionals, staying informed about cyber threats is crucial to safeguarding personal and financial security.

Financial cybercrimes often involve unauthorized access to banking information, phishing scams, identity theft, and fraudulent transactions. The National Cyber Crime Reporting Portal emphasizes the urgent need for awareness to combat these issues.

An image titled "10 Most Common Tricks Used by Scammers" included in this write-up highlights deceptive tactics such as phishing emails, fraudulent UPI requests, fake banking links, SIM card swapping, and social engineering methods. Recognizing these tricks is key to avoiding scams.

Additionally, images of "Cyber Facts" from the National Cyber Crime Reporting Portal provide valuable insights

into preventive measures and awareness campaigns aimed at mitigating cyber threats. These facts outline practical steps to enhance financial security and emphasize the importance of promptly reporting incidents. Reporting not only resolves individual cases but also strengthens national efforts to combat cybercrime.

Medical professionals, often unaware of digital vulnerabilities, must remain vigilant. By understanding the information shared in this write-up and accompanying images, healthcare professionals can better protect themselves and contribute to a culture of cybersecurity awareness.

Collective vigilance and proactive engagement are essential in creating a secure digital environment. Let us prioritize cybersecurity in both our personal and professional lives to counter the growing menace of financial cyber theft.

10 COMMON TRICKS USED BY SCAMMERS! Be Aware and Be Scam-Safe

1. **TRAI Phone Scam:** Scammers threaten to suspend your mobile services, citing illegal activity or KYC non-compliance. **Reality:** TRAI doesn't suspend services; only telecom companies can.

2. **Parcel Stuck at Customs:** Scammers claim a parcel addressed to you has been intercepted for containing illegal goods and demand a fine. **Action:** Disconnect and report the number.

3. **Digital Arrest:** Scammers pose as fake police officers and threaten to interrogate you online for a made-up criminal activity.

Reality: Police don't conduct digital arrests or online interrogations.

4. Family Member Arrested: Scammers claim a relative has been arrested and demand payment. Action: Verify with family members before taking action. 5. Get Rich Quick Trading; Social media ads promising high returns on stock investments.

Reality: High-return schemes are likely scams.

6. Easy Tasks/ Online jobs for Big Rewards: Scammers offer high sums for simple tasks then ask for an investment/security deposit. Reality: Easy money schemes are scams.

7. Lottery in your Name: SMS/email stating you've won a lottery and asking for account details or a security deposit. Action: gnore/delete the message/email.

8. Mistaken Money Transfer: Scammers claim incorrect credit transactions and ask for refunds. Action: Verify transactions with your bank.

9. **KYC Expired:** Scammers ask for KYC updates via links/phone calls.

Reality: Banks do not call or send links for updates.

10. Generous Tax Refund: Fraudsters pose as tax officials asking for bank details.

Reality: Tax departments already have bank details and communicate directly.

Source: SBI







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DIAL **1930** For online financial fraud Report any cybercrime at www.cybercrime.gov.in

Ice-triane Coordination Control Control Control

FOLLOW CYBERDOST FOR UPDATES ON CYBER HYGIENE

Dr. Amit M Shah Department of Pharmacology GMERS Medical College Gandhinagar

The White Coat Ceremony: A Contemporary Medical Ritual

The White Coat Ceremony is a momentous occasion celebrated worldwide, marking the formal entry of medical students into the noble profession of medicine. At GMERS Gandhinagar Medical College, this significant event was observed with great enthusiasm and solemnity on October 14, 2024, in the College Auditorium Hall. For the first-year MBBS students, it was a transformative moment, symbolizing the beginning of their incredible journey in healthcare.



The White Coat Ceremony, established by the Arnold P. Gold Foundation in 1993, has become a rite of passage for medical students globally. The white coat, an emblem of medical professionalism, integrity, and compassionate care, holds deep significance. It represents not only the dedication to learning but also the ethical responsibilities and values that aspiring medical professionals are bound to uphold. This ceremony marks the transition from being mere aspirants to becoming committed learners in the field of medicine and serves as a constant reminder of the trust society places in its healers.

The event at GMERS Gandhinagar Medical College was meticulously organized and included several inspiring and memorable segments. The ceremony commenced with an insightful presentation by Dr. Sudarshan Gupta, Associate Professor in the Department of Anatomy, who shared the timeline of the MBBS curriculum. His presentation provided students with a clear roadmap of the rigorous yet rewarding academic journey that lay ahead. This was followed by Dr. Amit Upadhyay, Professor and Head of the Physiology Department, who detailed the rules and regulations of the institute, emphasizing discipline and dedication as foundational pillars of their academic life. A vibrant prayer dance performance by second-year MBBS students, Aishwarya and Nidhi, added a touch of cultural and spiritual significance to the event. The graceful movements resonated with the aspirations and hopes of the new batch of students.

The ceremony officially commenced with the lighting of the lamp, a traditional ritual symbolizing enlightenment and knowledge. Distinguished dignitaries, including Dean Dr. Ankur Zalawadia, Medical Superintendent Dr. Meeta Nanavati, Additional Dean Dr. Darshan Dave, Assistant Dean Dr. Amit Upadhyay, and Professor and Head of the Biochemistry Department Dr. Kiran Chauhan, participated in this auspicious moment, setting the stage for an inspiring program.



The dignitaries delivered keynote addresses, inspiring students to embrace values such as empathy, dedication,

and perseverance in their medical careers. Dean Dr. Zalawadia highlighted the importance of holistic development, while Superintendent Dr. Nanavati emphasized the pivotal role of ethical practice in medicine. The words of encouragement and wisdom from the faculty reinforced the significance of their commitment to this noble profession.

A special segment was dedicated to recognizing academic excellence. The following students were felicitated for their outstanding performance:

- Param Padhiyar, for securing the first rank in Gujarat University in MBBS Phase I.
- Phase-wise top performers included:
 - MBBS Phase I: Saroj Nakum (2nd Rank), Anmol Manoj (3rd Rank), and Rudra Shah (4th Rank).
 - MBBS Phase II: Modha Borva (1st Rank), Patel Nidhi (2nd Rank), and Patel Helly (3rd Rank).
 - MBBS Phase III Part I: Shah Hetvi (1st Rank), Sowmya Raman (2nd Rank), and Parmar Hemangiba (3rd Rank).
 - MBBS Phase III Part II: Gor Saloni (1st Rank), Patel Achal (2nd Rank), and Balar Aman (3rd Rank).

One of the most solemn moments of the ceremony was the recitation of the Hippocratic Oath by Dr. Darshan Dave. The oath, a time-honored code of ethics, served as a powerful reminder of the moral responsibilities medical students pledge to uphold throughout their careers.



The ceremony concluded on a high note with a heartfelt vote of thanks by Dr. Rajesh Desai, who expressed gratitude to all the dignitaries, faculty members, and students for making the event a success. Special acknowledgment was given to Dr. Sudarshan Gupta and Dr. Ashita Vyas, who spearheaded the organization of this remarkable event.

The entire event culminated in a moment of unity and respect as everyone stood for the National Anthem, reinforcing the values of service to the nation through the field of medicine.

The White Coat Ceremony was not just a celebration but a profound reminder of the journey ahead. It inspired students to embrace their roles as future healers with empathy, knowledge, and unwavering dedication, setting the tone for a lifetime of learning and service.



Diwali Get-Together: Celebrating Festivity, Togetherness, and Joy

To foster a sense of community and celebrate the festival of lights, a Diwali Get-Together event was jointly organized by the Departments of Pathology, Microbiology, and Biochemistry on 11th November 2024 at GMERS Medical College, Gandhinagar. Bumper Musical Housie, Hula Hoop Ring Game, Logo Quiz, a Selfie Point, and a delicious lunch were some of the highlights of the event.



Everyone dressed in their best ethnic attire, adhering to the theme of blue. After the initial greetings, the fun and festivities commenced. Various competitions were organized, and it was amazing to witness everyone's creativity come to life. The sessions were lively, with participants enthusiastically singing their favorite songs. The fun games quickly turned into hilarious and energetic competitions. The sound of laughter filled the air as people cheered each other on and encouraged their teammates to participate.



The Photo Booth was more than just a spot for clicking pictures; it became a symbol of togetherness, reminding everyone of the importance of celebrating small moments with the people we work with every day. The photos from the booth are now cherished keepsakes of a truly wonderful event.

The entire event was excellently hosted by Dr. Ashita Vyas, Dr. Paragi Gandhi, Dr. Parul Patel, and Dr. Lipi Patel. The event saw an impressive turnout of attendees. This Diwali get-together reminded us that festivals are not just about rituals but about coming together, sharing happiness, and creating lasting memories. We look forward to many more such joyous occasions with our work family in the years to come.

National Newborn Week Celebration

The Department of Pediatrics at GMERS Medical College and General Hospital, Gandhinagar, celebrated National Newborn Week from November 15 to November 21, 2024. The theme for this year was "Optimizing Antimicrobial Use to Prevent Antimicrobial Resistance in Newborns." This celebration focused on spreading awareness about essential aspects of newborn care, including preterm care, maternal and newborn hygiene, hand hygiene, skin care, and hygienic practices before breastfeeding or expressing milk. These key messages were conveyed through health talks and informative IEC (Information, Education, and Communication) materials distributed in the Outpatient Department (OPD), Neonatal Intensive Care Unit (NICU), and Kangaroo Mother Care (KMC) ward.

The faculty members also conducted a specialized lecture for postgraduate students, emphasizing the optimal use of antibiotics in newborn care to prevent the development of antimicrobial resistance. This session provided the students with critical insights into evidence-based practices and guidelines for judicious antimicrobial use, helping to foster a better understanding of their role in combating resistance.



To engage and motivate postgraduate students further, a quiz competition based on the theme was organized. The quiz served as an interactive and educational platform, encouraging students to delve deeper into the topic and apply their knowledge in a collaborative setting.



The event witnessed active participation from faculty members, residents, and nursing staff, who played a crucial role in ensuring its success. Their enthusiasm and dedication to the cause underscored the importance of teamwork in creating awareness and driving change. Through these activities, the department aimed to empower healthcare providers, caregivers, and the community with the knowledge and skills necessary to protect newborns from preventable infections and ensure their well-being.



This week-long celebration highlighted the collective responsibility of healthcare professionals in advocating for better practices and promoting neonatal health. The efforts put forth during National Newborn Week were a testament to the department's commitment to improving neonatal outcomes and addressing pressing public health challenges such as antimicrobial resistance. By fostering education and awareness, the event not only contributed to immediate healthcare improvements but also laid the foundation for sustainable changes in neonatal care practices.

Raising Awareness on Antimicrobial Resistance: A Report on World AMR Awareness Week 2024

The Department of Microbiology at GMERS Medical College, Gandhinagar, organized a two-day event on November 18-19, 2024 to commemorate World Antimicrobial Resistance (AMR) Awareness Week 2024. The program aimed to highlight the growing global threat of antimicrobial resistance and promote efforts under the "Network Program on Antimicrobial Resistance, Superbugs & One Health Human Node." The series of activities successfully fostered awareness among students, staff, and the general public.

Day 1: Poster and Quiz Competition – A Showcase of Creativity and Knowledge

The inaugural day of the event, held on 18th November 2024, witnessed a Poster and Quiz Competition with enthusiastic participation from nearly 150 individuals. Participants included undergraduate and postgraduate students, nursing staff, healthcare workers, and faculty members.

The event was graced by esteemed dignitaries, including the Dr. Ankur Zalawadia, Dean, and Dr. Meeta Parikh, Medical Superintendent, and Dr. Gaurishanker Shrimali, Professor and Head of the Department of Microbiology. A total of 30 posters were submitted, creatively showcasing innovative ideas and strategies to combat antimicrobial resistance. Alongside the poster presentation, a quiz competition tested participants' knowledge on the subject, fostering a spirit of healthy competition and learning.

The day concluded with an award ceremony recognizing outstanding contributions:

- Faculty and Residents:
 - First Prize: Dr. Shital (2nd-year resident, Department of Surgery)
 - o Second Prize: Dr. Khushbu Parmar
- Nursing Staff and Healthcare Staff:
 - First Prize: Priya Patel (Technician)
 - o Second Prize: Pinal Khakhar (Technician)
 - o Third Prize: Asha Patel (Nursing Staff)
 - Third Prize: Siya Patel and Jinal Parmar (Nursing Students)
- Appreciation Prizes:
 - Dr. Darshan Dave (Head of the Department of Pharmacology)
 - o Sejal Patel (Staff Nurse)

Participation prizes were given to all presenters, while the top-ranked individuals received special prizes for excellence.



Day 2: AMR Awareness Rally – Taking the Message to the Public

On November 19, 2024, the second day of the program featured an AMR Awareness Rally to further disseminate critical information about antimicrobial resistance to hospital staff, patients, and the general public. The rally was organized under the esteemed presence of Dr. Ankur Zalawadia, Dean, and Dr. Meeta Parikh, Medical Superintendent.

The rally saw significant participation from faculty members, medical and nursing students, and other staff members. Armed with banners and slogans carrying impactful messages, participants marched across the college campus, spreading awareness about the critical issue of antimicrobial resistance. The rally concluded with a pledge-taking ceremony held in the hospital's outpatient department (OPD) area. Here, participants vowed to continue spreading awareness about AMR among hospital staff, patients, and their families, underscoring their commitment to combating this global health challenge.

A Collaborative Effort for a Better Future

The two-day World AMR Awareness Week 2024 at GMERS Medical College, Gandhinagar, highlighted the importance of collaboration in combating antimicrobial resistance through creative activities, education, and community engagement. The event inspired proactive efforts in spreading awareness, emphasizing the shared responsibility of healthcare professionals, students, and the community to address this global health challenge.





Biochemistry Department Shines at AMBICON 2024: A Celebration of Excellence and Innovation

The year 2024 concluded on a triumphant note for the Biochemistry Department of GMERS Medical College, Gandhinagar, as the 31st Annual National Conference of the Association of Medical Biochemists of India (AMBI), AMBICON 2024, was held at The Forum – Convention & Celebration Centre (Club O7) from December 19 to 21, 2024. The conference, themed "Through the Lens of a Biochemist: Advancing Medicine through Breakthrough Innovations," brought together 550 MD Biochemists from across India. This prestigious event was preceded by ten pre-conference workshops, designed to offer hands-on experience in cutting-edge techniques and practices, showcasing the Biochemistry Department's instrumental role in the conference's success.



Dr. Kirankumar Chauhan, Professor and Head of the Biochemistry Department, served as the Joint Organizing Secretary of the event. His exceptional leadership and organizational acumen ensured the smooth execution of the conference and pre-conference workshops.



Dr. Chauhan's efforts were recognized with the prestigious Recognition Award for organizing the State CME at GMERS Gandhinagar earlier in February 2024. He exemplified the principle that learning is a lifelong pursuit, inspiring attendees with his dedication.

Dr. Gaurav Modi, Professor, coordinated two advanced pre-conference workshops on Liquid Chromatography Tandem Mass Spectrometry (LC-MS), Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry (MALDI-TOF MS), and Nucleic Acid Isolation at the Gujarat Biotechnology and Research Centre (GBRC), Gandhinagar, on December 18, 2024. These workshops were highly regarded for their comprehensive and practical approach. In addition to his role as a workshop coordinator, Dr. Modi anchored several scientific sessions during the conference, reflecting his deep expertise and commitment to fostering academic excellence.





Dr. Jatin Patel, Associate Professor of the Biochemistry Department, delivered a lecture on the "Clinical Presentation and Prevalence of Hemoglobinopathies" during the workshop on HPLC – HbA1c Estimation and

Hemoglobinopathies Screening at GMERS Medical College, Sola. His insightful session, held on December 18, 2024, was well-received by participants. Dr. Patel also played a key role as the workshop coordinator and contributed significantly to the conference's scientific discussions.



Assistant Professor, Dr. Lipi Patel made notable contributions by delivering a lecture on "HbA1c Estimation and the Role of Hemoglobinopathies in HbA1c Estimation" during the same workshop. She chaired a corporate session on "Redefining Prevention with Cutting-Edge Markers" by Diasys on December 20, 2024, underscoring her dedication to advancing clinical biochemistry. Dr. Patel's active involvement as a coordinator and her leadership in various sessions highlighted her pivotal role in the department's success.



Dr. Ashita Vyas, Assistant Professor, added vibrancy and elegance to the event by serving as the Master of

Ceremony, anchoring scientific sessions, and coordinating the cultural extravaganza. She also chaired a corporate session on "Troponin I as a Cardiac Marker in MI" on December 20, 2024. Her versatility and energy contributed significantly to the seamless conduct of the conference and cultural events.



The Biochemistry Department faculty showcased their cultural pride by performing the traditional *Garba* dance during the cultural extravaganza, highlighting the rich traditions of Gujarat. Their performance was a vibrant display of unity and celebration, leaving an indelible impression on all attendees.



AMBICON 2024 was a remarkable platform for knowledge-sharing, skill enhancement, and cultural exchange. The active participation and recognitions earned by the Biochemistry Department reaffirm their dedication to academic excellence and innovation. The event served as a testament to their collaborative spirit and commitment to fostering advancements in medical biochemistry, leaving a lasting impact on the attendees and setting a benchmark for future achievements.

Healing with Excellence: The Art of Successful Lower Eyelid Carcinoma Surgery

The Department of Ophthalmology, GMERS General Hospital, Gandhinagar, successfully managed a complex case involving a 50-year-old female patient who presented with a painless swelling in the left lower eyelid. The lesion, approximately $1.4 \times 1.2 \times 1.0$ cm, appeared as a hard, non-tender, cauliflower-like mass on the nasal half of the lower lid, sparing the opening of the lower punctum.



A multidisciplinary approach was adopted to address this challenging case. The treatment plan involved surgical excision of the tumor along with eyelid reconstruction under general anesthesia, followed by histopathological examination. The oculoplasty team, led by Dr. Jigish Desai, Dr. Shilpa Bhatt, and Dr. Bhargavi Parth, performed the surgery. The procedure required resection of the medial two-thirds of the lower eyelid, encompassing the entire tumor mass, including the skin, soft tissue, tarsal plate, and conjunctiva. Clear tumor-free margins of up to 2 mm were also excised and sent for histopathological analysis.



To reconstruct the lower eyelid, a combination of buccal mucosa and post-auricular cartilage grafts was utilized, in collaboration with Dr. Yogesh Gajjar, Head of the Department of ENT. The reconstruction employed the V-Y flap technique to ensure optimal cosmetic and functional Histopathological outcomes. reports confirmed poorly differentiated squamous cell carcinoma with tumor-free margins, providing a favorable prognosis.



Postoperatively, the team prioritized wound care and the use of advanced reconstruction techniques to achieve an optimal balance between cosmetic and functional results. Reconstruction approaches ranged from local flaps to grafts, tailored to restore the appearance and functionality of the eyelid. Long-term follow-up was emphasized to monitor for any signs of recurrence and address any residual aesthetic or functional concerns.

At the two-month postoperative follow-up, the patient exhibited excellent outcomes. The lower eyelid had achieved a perfect configuration, and the patient could fully close the eye without any lid lag. This case underscores the importance of a multidisciplinary approach, meticulous surgical planning, and advanced reconstruction techniques in managing complex oculoplastic cases. The Department of Ophthalmology's success in handling such a challenging case reflects its commitment to providing comprehensive and patientcentered care.

Case Report: Successful Management of a Large Basal Cell Carcinoma of the Scalp in a 75-Year-Old Female

Basal cell carcinoma (BCC) is the most common cutaneous malignancy, often occurring in areas of chronic sun exposure. Management becomes particularly complex when lesions are large, especially in cosmetically and functionally sensitive areas such as the scalp. This report presents the case of a 75-year-old woman with a large BCC lesion on the left parietal scalp, following a history of trauma two months earlier, successfully treated with wide local excision and flap reconstruction.

BCC typically presents as a slow-growing, locally invasive neoplasm with minimal metastatic potential. However, large lesions in anatomically constrained areas like the scalp pose significant management challenges due to cosmetic and functional considerations. This case illustrates the effectiveness of a multidisciplinary approach combining surgical excision and reconstruction.

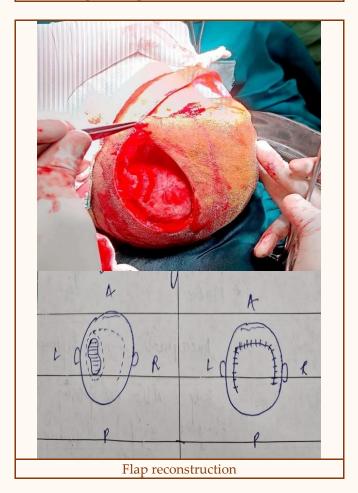


Preoperative picture showing large basal cell carcinoma lesion over scalp

The patient, a 75-year-old female, presented with a progressively enlarging lesion on the left parietal scalp, which appeared two months after a minor fall resulting in trauma. She reported bleeding and non-healing at the site. On examination, the lesion measured approximately 5 cm in diameter, was ulcerated with rolled edges, showed regional and no lymphadenopathy. A wedge biopsy confirmed nodular basal cell carcinoma. A CT scan of the scalp revealed soft tissue involvement without evidence of bony invasion.



Intraoperative picture of wide local excision



The surgical approach involved wide local excision with a 1 cm circumferential margin, employing an elliptical incision to ensure complete tumor removal while preserving the periosteum, as the lesion was confined to the soft tissue. The large defect created post-excision necessitated a rotational scalp flap for reconstruction. The flap was meticulously designed to ensure adequate blood supply, achieving complete coverage and tensionfree closure. Histopathological examination confirmed tumor-free margins, affirming the adequacy of the excision.



The patient recovered well, with no signs of infection or flap necrosis, achieving excellent cosmetic and functional outcomes.

Large scalp BCCs, though uncommon, require strategic management. Trauma can precipitate or exacerbate lesion growth, as observed in this case. This report highlights the importance of meticulous surgical planning in addressing large BCCs. Wide local excision, combined with flap reconstruction, provides an effective solution for restoring form and function, even in elderly patients with significant scalp involvement.

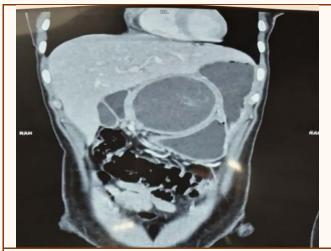


We extend our sincere gratitude to the surgical team for their invaluable contributions. Special acknowledgment goes to Dr. Mehul Patel (Oncosurgeon), Dr. Pratik Shah (Associate Professor, General Surgery), Dr. Abhijit Yadav (Assistant Professor, General Surgery), Dr. Abhijit expertise and leadership. We also recognize the dedication of Dr. Dharti Patel (Senior Resident, General Surgery), Dr. Sheetal (Second-Year Resident, General Surgery), and Dr. Chirag (First-Year Resident, General Surgery), as well as all other team members who contributed to this successful outcome.

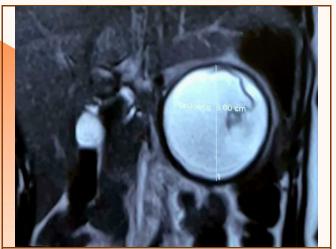


Case Report: An Elusive Pancreatic Lesion: Hydatid Cyst vs. Pseudocyst vs. Malignancy

Pancreatic hydatid cyst (PHC) disease is frequently misdiagnosed during preoperative radiologic investigations, as illustrated in this case. Hydatid cyst is a zoonotic disease caused by the larval stage of the tapeworm Echinococcus granulosus, transmitted via the fecal-oral route. It commonly affects the liver and lungs, with pancreatic involvement being rare, accounting for less than 1% of cases. PHC poses unique diagnostic and therapeutic challenges and is associated with severe complications such as jaundice, cholangitis, and pancreatitis. These complications arise due to fistulization of cyst contents into pancreatobiliary ducts or external compression of these ducts by the cyst.



CT scan of abdomen showing an 8 x 7 x 8 cm large well defined cystic lesion near body region of pancreas



MRCP showing a 6 x 7 x 8 cm cystic structure arising from distal body extending to lesser sac with no communication with MPD

This case involves a 23-year-old breastfeeding mother who presented with persistent dull upper abdominal pain, occasional nausea, and bloating. She had no history of jaundice, fever, weight loss, or recent travel but had owned a domestic dog a year prior. Physical examination revealed mild tenderness in the epigastric region without palpable masses or peritonitis. Liver function tests and pancreatic enzyme levels were normal.

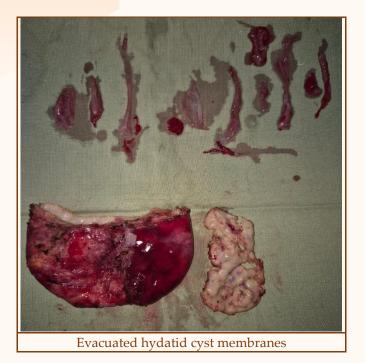
Abdominal ultrasound revealed a well-defined, thickwalled cystic lesion in the body of the pancreas ($72 \times 77 \times 64 \text{ mm}$) with internal septations. A CT scan suggested a pseudopancreatic cyst, while MRCP findings pointed to mucinous cystadenoma, adding to the diagnostic uncertainty. An exploratory laparotomy was performed for definitive evaluation and management.



Intra-operative picture demonstrating the location of the unroofed cyst



Operative photograph demonstrating the extraction of the germinative membrane and pericystocystectomy being performed



Surgical exploration revealed a 7x7x7 cm cyst in the pancreas. Aspiration confirmed straw-colored fluid consistent with a hydatid cyst. The cyst was opened, and the germinative membrane and daughter vesicles were carefully evacuated. The cavity was irrigated with a scolicidal agent (10% Povidone-iodine), followed by a cystopericystectomy (deroofing), preserving the main pancreatic duct. Drains were placed in the residual cavity and the right paracolic gutter. The patient recovered uneventfully and was discharged on the seventh postoperative day. Postoperative albendazole therapy was initiated to minimize the risk of recurrence due to cyst rupture and dissemination.

This case highlights how small life details, such as pet ownership, can unexpectedly affect health. It also demonstrates the importance of a collaborative surgical team. Special acknowledgment goes to Dr. Pratik Shah (Associate Professor, General Surgery) and Dr. Abhijit Yadav (Assistant Professor, General Surgery), whose expertise was pivotal. The commitment of Dr. Dharti Patel (Senior Resident, General Surgery), Dr. Sheetal (Second-Year Resident, General Surgery), and Dr. Chirag (First-Year Resident, General Surgery) further contributed to the successful management of this rare and challenging case.

WORLD Mental Health DAY October 10

World mental health day is an important health awareness event witnessed every year on **10 October** to create awareness and promote the importance of mental health in one's life and society.



Case Report: Successful Anesthetic Management of a Difficult Airway in a Mastoid Surgery Patient

The Department of Anesthesiology, led by Dr. Shobhana Gupta (Professor and Head), showcased exceptional expertise and teamwork in the management of a challenging anesthetic case. The team, comprising Dr. Jayshri Prajapati (Professor), Dr. Priyanka Shah (Assistant Professor), Dr. Urvi Shah (Senior Resident), Dr. Barkha Mirchandani (Junior Resident), and OT Assistant Shailesh Parmar, successfully managed a patient requiring left mastoid surgery under complex conditions.

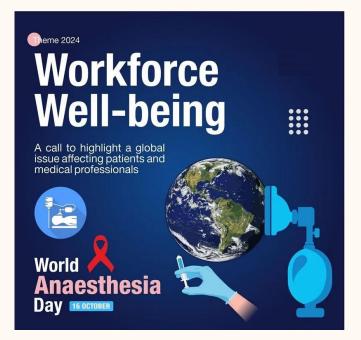
The patient, a 32-year-old female, presented with left ear pain and foul-smelling discharge persisting for 15 days. Although her medical and surgical history was unremarkable, she had a history of chronic tobacco use spanning 20 years, consuming 4-5 packets daily. On examination, she displayed signs of a difficult airway, including limited mouth opening (Mallampati grade 4), stained teeth, a receding mandible, and protruding upper teeth. Measurements revealed a thyromental distance of 6.5 cm and a sternomental distance of 14.2 with movements. cm, normal neck Routine investigations, including ECG and chest X-ray, were within normal limits. She was classified under ASA class 3 due to the anticipated airway challenges, warranting meticulous preoperative planning.

To optimize the airway, the patient was nebulized with 4% lignocaine mixed with normal saline. Nasal wicks soaked in xylometazoline, 2% lignocaine, adrenaline, and normal saline were prepared. A difficult airway cart was arranged, and an expert anesthesiologist and ENT surgeon were on standby. A tracheostomy tray was also kept ready as a precaution.

The patient was induced under general anesthesia, and nasal snares were dilated using a 6.5 mm nasal dilator. A blind nasal intubation—a non-invasive technique was successfully performed on the first attempt with a 6 mm flexo-metallic endotracheal tube. The intraoperative period was uneventful, and the patient was extubated smoothly after regaining full consciousness and muscle power. Postoperative monitoring was carried out to ensure her safety and recovery.



This case highlights the importance of comprehensive preparation, expertise, and teamwork in managing complex anesthetic challenges. The collaborative efforts of the anesthesiology and ENT teams ensured a safe and successful outcome for the patient, demonstrating excellence in patient care.



Case Report: Benign Tumor of Proximal Tibial Metaphysis

A 34-year-old female housewife presented with complaints of pain and swelling on the medial side of the proximal leg, accompanied by difficulty in walking for six months. Initially, the pain was mild but gradually increased in severity, eventually causing difficulty in bearing weight.

On examination, diffuse swelling was observed on the medial aspect of the proximal leg around the knee, with tenderness at the same site and a limping gait. Distal neurovascular status was normal.

Plain radiographs revealed an osteolytic lesion on the medial aspect of the proximal tibia, without involvement of the knee joint. MRI of the proximal leg and knee showed a heterogeneous, semisolid cystic lesion in the medial aspect of the proximal third of the tibia. The lesion had well-defined margins and extended up to the articular cartilage, with no cortical breach, suggestive of a giant cell tumor (GCT) or aneurysmal bone cyst (ABC).





Pre-operative X-ray of knee showing lytic lesion of proximal tibia

Post-operative x-ray of knee showing reconstruction with bone grafting After routine blood investigations and preoperative fitness, the patient underwent excision curettage and reconstruction with plating and bone grafting. Under strict surgical precautions, an incision was made over the anteromedial aspect of the proximal leg. Diseased tissues were initially removed with a curette, followed by extended curettage and cauterization of margins. The cavity was thoroughly washed with absolute alcohol, filled with tricortical bone graft from the anterior superior iliac spine (ASIS) and strut graft from the fibula, and reconstructed with medial plating.

Intraoperative findings suggested GCT, and the sample was sent for histopathological examination. The limb was immobilized with a posterior slab for 15 days, followed by suture and slab removal, and weightbearing was initiated.

Although the provisional diagnosis was GCT, histopathology confirmed the final diagnosis as Non-Ossifying Fibroma (NOF). Non-ossifying fibromas are benign fibrogenic lesions resulting from dysfunctional ossification. They are most commonly found in the metaphysis of long bones. Patients typically present with asymptomatic lesions discovered incidentally on radiographs. Diagnosis is made through radiographs, which characteristically show a metaphyseal eccentric "bubbly" lytic lesion surrounded by a sclerotic rim.

This case underscores the importance of thorough diagnostic evaluation and the role of histopathology in confirming the diagnosis of such rare and benign lesions.



MRI showing heterogenous semisolid cystic lesion seen in medial aspect of proximal thirds of tibia having well defined margins extending up to articular cartilage with no cortical breach suggestive of GCT/ABC

Achievements of the Dermatology Department at CUTICON 2k24

The Dermatology Department of GMERS Medical College and General Hospital, Gandhinagar, showcased its exceptional talent and expertise at CUTICON 2k24, the Rajasthan State Conference held at Abu Road. The event was marked by remarkable achievements by the department's residents, bringing pride to the institution.

Dr. Radhika Agarwal and Dr. Rajat Budhiraja secured the prestigious 1st prize in the State Quiz Competition, demonstrating their outstanding knowledge and quick thinking. This victory earned them the honor of representing Gujarat state at the national-level conference, Dermacon 2025, which will take place in February.

Adding to the accolades, Dr. Sreelakshmi T.S. secured the 3rd prize in the Free Paper Presentation category, showcasing her innovative research and in-depth understanding of dermatology.

Furthermore, Dr. Bela Padhiar received the Best Poster Award for her E-Poster presentation, a recognition of her creativity and scientific contribution.



Prestigious Research Award for Department of Pediatrics at ReseaRCHcon 2024

The Department of Pediatrics, GMERS Medical College, Gandhinagar, takes immense pride in the outstanding achievement of its 3rd-year resident, Dr. Sayan Kumar Das, who secured the First Prize for the Best Research Thesis Paper at the National Conference of IAP Research in Child Health Society 2024 (ReseaRCHcon 2024). This accomplishment reflects the department's commitment to excellence in research and academics.



Research Projects Selected Under ICMR – Short Term Studentship (STS) Program

ICMR STS 2023 Program – Successfully Completed Research

- 1. **Project Title**: The knowledge of blood collection technique for blood culture among nurses and resident doctors at a tertiary care center.
 - **Student**: Mr. Achanta N V Sai Prasanth (MBBS Phase III-Part II)
 - **Guide**: Dr. Parul C Patel (Associate Professor, Department of Microbiology)
 - ICMR STSS Project No.: STS2023-03275

ICMR STS 2024 Program – Selected Proposals

1. **Project Title**: A study of prevalence of behavioural disorders associated with problematic smartphone

use in young children of urban western India.

- Student: Sujal Choubey (MBBS Phase II)
- **Guide**: Dr. Amit Upadhyah (Professor and Head, Department of Physiology)
- ICMR STSS Project No.: STS2024-09941
- 2. **Project Title**: Surveillance of Adverse Events Following Immunization in a district of western India: Assessing Prevalence, parental awareness, and Healthcare provider's knowledge.
 - **Student**: Sirjan Kaur (MBBS Phase II)
 - **Guide**: Dr. Jagruti Prajapati (Assistant Professor, Department of Community Medicine)
 - ICMR STSS Project No.: STS2024-12105

The Nobel Prize in Physiology or Medicine 2024

The 2024 Nobel Prize in Physiology or Medicine was awarded to Victor Ambros and Gary Ruvkun for discovering microRNAs and their critical role in gene regulation. MicroRNAs are small RNA molecules that do not code for proteins but regulate gene expression by binding to messenger RNAs (mRNAs) and controlling protein production. Their discovery, initially made through studies on the nematode *Caenorhabditis elegans*, revealed a universal mechanism applicable across all animal life. This breakthrough has significant implications for biology and medicine, offering insights into development, cell differentiation, metabolism, and disease mechanisms. It also paves the way for therapeutic innovations targeting microRNAs in conditions like cancer and neurodegenerative disorders.



Gratitude to the Generous Souls Who Gave the Gift of Life

We, all faculty members and students of GMERS Medical College and General Hospital, Gandhinagar, express our deepest gratitude and heartfelt thanks to the noble individuals and their families who have selflessly donated their bodies to the Department of Anatomy for the purpose of medical education and research.

Body donation is a truly extraordinary and compassionate gift. It goes beyond personal loss and benefits generations of medical students, professionals, and society as a whole. Through their selfless contributions, these individuals have made a lasting impact on the development of future doctors, helping them learn, understand, and appreciate the complexities of the human body in the most direct and meaningful way possible. We honor their memory and legacy, which will continue to guide and shape the next generation of medical experts. Our sincere appreciation goes not only to the donors but also to the families who supported these acts of kindness and generosity during such a difficult time. On behalf of GMERS Medical College, Gandhinagar, we extend our heartfelt gratitude for their invaluable contribution to advancing medical education and improving healthcare for all.

Thank you for being the guiding light in shaping the future of medicine.

Body Donations Received by Department of Anatomy, GMERS Medical College and General Hospital, Gandhinagar in 2024				
Sr. No.	Donor's Name	Date	Donated by (Relative of the Donor)	
1	Shri Dineshbhai Makwana	12/01/2024	Shivansh Makwana	
2	Shri Ramchandra Bodiwala	13/01/2024	Manish Bodiwala	
3	Shrimati Anjaniben Buch	19/01/2024	Mamta Buch	
4	Shri Ramjibhai Parmar	26/01/2024	Alpeshbhai Parmar	
5	Shrimati Indiraben Parikh	28/02/2024	Suresh Parikh	
6	Shri Somabhai Patel	17/04/2024	Girishbhai Patel & Bharatbhai Patel	
7	Shri Nathabhai Tank	19/04/2024	Bharatkumar Tank	
8	Shri Mathurbhai Leuva	24/04/2024	Gaurangbhai Leuva	
9	Shrimati Subhadraben Patel	07/05/2024	Dineshkumar Patel	
10	Shri Vinodchandra Patel	18/07/2024	Bhagyesh Patel	
11	Shrimati Kashmiraben Shah	13/08/2024	Dilipkumar Shah	
12	Shri Bhogilal Modi	02/12/2024	Dr Pranav Modi	
13	Shri Chimanbhai Patel	19/12/2024	Ketankumar Amin & Rotary Club of Vijapur	

New Drugs Approval by Central Drug Standard Control Organization (CDSCO) in 2024

Sr. No.	Name of the Drug	Indication
		Indicated as an adjunct to diet and exercise to improve glycemic control
1	Tirzepatide	in adults with type 2 diabetes mellitus
2	Plazomicin Etifoxine	 Indicated in patients 18 years of age or older for the treatment of complicated urinary tract infections (CUTI), including pyelonephritis caused by the following susceptible microorganism(s) Escherichia coli Klebsiella pneumoniae Proteus mirabilis Enterobacter cloacae Indicated for psychosomatic manifestations of anxiety Treatment of reflux esophagitis (RE) Treatment of gastric ulcer (GU) Prevention of recurrence of gastric ulcer or duodenal ulcer during low-dose aspirin administration.
4 V	Vonoprazan fumarate	 Prevention of recurrence of gastric ulcer or duodenal ulcer during NSAIDs administration. Adjunct to Helicobacter pylori eradication associated with: Gastric ulcer, Duodenal ulcer, gastric MALT lymphoma, idiopathic thrombocytopenic purpura, the stomach after endoscopic resection of early-stage cancer, or Helicobacter pylori gastritis.
5	rdESAT-6 and rCFP-10 (Cy-TB)	 For Detection of Latent-TB for population of age group 1 year and above For detection of Latent-TB for population below 1 year in implementation research mode under National program only
6	Selpercatinib Capsules	 Adult patients with metastatic RET fusion-positive non-small cell lung cancer (NSCLC) Adult and pediatric patients 12 years of age and older with advanced or metastatic RET mutant medullary thyroid cancer (MTC) who require systemic therapy. Adult and pediatric patients 12 years of age and older with advanced or metastatic RET fusion-positive thyroid cancer who require systemic therapy and who are radioactive iodine refractory (if radioactive iodine is appropriate)
7	Nelarabine	For the treatment of patients with T-cell Lymphoblastic leukemia and T-cell Lymphoblastic lymphoma in adult and pediatric patients age 1 year and older whose disease has not responded to or has relapsed following treatment with at least two chemotherapy regimens
8	Enmetazobactam	Indicated for the treatment of patients 18 years of age and older for:Complicated urinary tract infection (CUTI) including acute pyelonephritis

Sr. No.	Name of the Drug	Indication
51.110.	Trunce of the Drug	Hospital-acquired pneumonia (HAP), including ventilator
		associated pneumonia (VAP)
		Bacteremia with complicated urinary tract infection or hospital
		acquired pneumonia
		Prophylaxis and treatment of urinary tract infections, Prevention of
9	Methenamine Hippurate	urinary tract infections, especially in catheter carriers, Asymptomatic
,		bacteriuria, long-term therapy in prevention of recurrent cystitis.
		Indicated as adjunctive therapy in the chronic management of patients
		with urea cycle disorders involving deficiencies of carbamyl phosphate
		synthetase (CPS), ornithine transcarbamylase (OTC), or
		argininosuccinic acid synthetase (AS). It is indicated in all patients with
10	Sodium Phenylbutyrate	neonatal-onset deficiency (Complete enzymatic deficiency, presenting
		within the first 28 days of life). It is also indicated in patients with late-
		onset diseases (partial enzymatic deficiency, presenting after the first
		month of life) who have a history of hyperammonemic encephalopathy.
		For treatment of chronic constipation (except for constipation
11	Elobixibat	associated with organic diseases)
		Indicated for the treatment of acute bacterial skin and skin structure
12	Tedizolid Phosphate	infections (ABSSSI) in adults and adolescents 12 years of age and older
		For the treatment of hallucinations and delusions associated with
13	Pimavanserin Tartrate	Parkinson's disease psychosis.
		For the management of moderate to severe pain associated with
14	Elagolix Sodium	endometriosis.
		Indicated as monotherapy for the treatment of adult patients with
		anaplastic lymphoma kinase (ALK)- positive advanced non-small cell
15	D ' (' 'I	lung cancer (NSCLC) previously not treated with an ALK inhibitor.
15	Brigatinib	Brigatinib is indicated as monotherapy for the treatment of adult
		patients with ALK-positive advanced NSCLC previously treated with
		crizotinib.
		Indicated for the treatment of symptomatic (NEW York Heart
16	Mavacamten	Association, NYHA, class II-III) obstructive hypertrophic
		cardiomyopathy (OHCM) in adult patients.
		It is an iron replacement product indicated for the treatment of iron
		deficiency anemia (IDA) in adult patients:
17	Ferumoxytol	• who have intolerance to oral iron or have had unsatisfactory
		response to oral iron or
		who have chronic kidney disease (CKD)
18		For the treatment of patients 12 years and older with chronic
	Belumo sudil	Graftversus-Host Disease (cGvHD) after failure of at least two prior
		lines of systemic therapy
		Indicated for the treatment of depressive episodes associated with
19	Lumate perone	bipolar I or II disorder (bipolar depression) in adults, as mono therapy
		and as adjunctive therapy with lithium or valproate.
20	Trelagliptin	For treatment of Type 2 diabetes.

Avengers Assemble Against Antimicrobial Resistance (AMR): Educate, Advocate, Act Now!

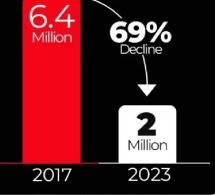








Decline in Malaria Cases Over 6 Years





Malaria deaths reduced from 11,100 in 2017 to **3,500 in 2023**

Source: World Malaria Report by WHO