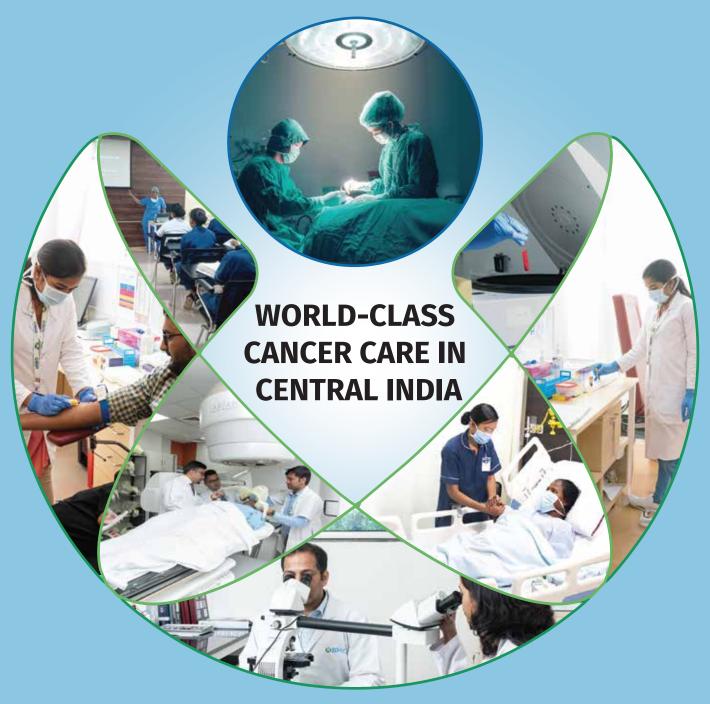








# **BALCO MEDICAL CENTRE**



ANNUAL REPORT 2023-24

COMPASSION · CARE · CURE

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The BALCO Medical Centre (BMC), a 170 bedded state-of-the-art tertiary care Oncology facility in Naya Raipur, is the first flagship initiative of Vedanta Medical Research Foundation (VMRF). VMRF, a non-profit organization, is an initiative of Vedanta Resources and Bharat Aluminium Company Ltd. (BALCO) to contribute towards prevention of cancer and its related illnesses.

BALCO Medical Centre is recognized as a referral centre for advanced radiation therapy, brachytherapy, nuclear medicine, surgeries, chemotherapy, immunotherapy, blood-related disorders, plastic and reconstructive surgery, and pain & palliative care. BMC also emphasizes psychological, nutritional, and physical therapy,

along with patient support groups for emotional well-being.

Since inception in March 2018, BMC has treated more than 38,500 patients, 4,350+ radiation therapy patients, 1,750+ brachytherapy sessions, 6,950+ operations, 51,000+ chemotherapy sessions, and 65+ BMT. Additionally, BMC has received many certifications and accreditation including LEED certification, NABH, FSSAI, NABL, Nursing Excellence, CAHO certifications.

The hospital boasts a team of highly skilled healthcare professionals, advanced diagnostic and therapeutic technologies, and a commitment to comprehensive care.

Vision	A Society Where Everyone Lives Free From Cancer	
Mission	Affordable, Accessible and World-Class Cancer Care for All	
Values	<ul> <li>Trust &amp; Transparency</li> <li>Excellence</li> <li>Humility</li> <li>Nurture</li> <li>Empathy</li> <li>Learning</li> </ul>	
Culture	<ul> <li>Patient First</li> <li>Quality Focused</li> <li>Collaborative Approach</li> <li>Ethical Behavior</li> <li>Legal &amp; ESG Compliant</li> <li>Technology Driven</li> <li>Equal Treatment</li> </ul>	

# Message from the Chairman's Desk

The BALCO Medical Centre is a national asset at the cutting edge of cancer-care. It is one of the few institutions of its kind in India and the only one in Central India. In a short time, since its inception in 2018 it has taken giant strides. We have a team of world-class doctors and researchers led by the internationally renowned oncologist, Dr. Bhawna Sirohi



who are providing top quality and affordable care. Our researchers are part of a cross-country team that has just been conferred the prestigious Cancer Grand Challenges Award, a global research initiative co-founded by Cancer Research UK and National Cancer Institute US, two of the largest global funders of cancer research.

Cancer can be devastating not just for the health of an individual but for the lives and livelihoods of those around them. It has always saddened me to see people from smaller cities travelling to Mumbai or other Tier 1 cities for treatment, leaving their livelihoods behind. Sometimes, the challenges of accommodation and the financial burden result in discontinuing treatments midway. That is what motivated us to set up BMC in an underserved geography.

While we continue to work towards bridging

regions of the country, between cities and rural areas by creating equal healthcare opportunities, we will also explore new horizons serving the aspirations of New India. The vision goes beyond just treating cancer; it's about providing special care, focusing on atmanirbharta, and consistently raising the bar.

disparities between different

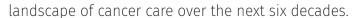
We want to establish a model that can give momentum to cancer-care throughout India. At the Vedanta Medical Research Foundation, our focus is on affordability of treatment, establishment of a research centre tailored to India's needs for cancer and its treatment, and training and development of the best oncology professionals.

Each time a patient leaves the hospital after treatment and hopefully cured, it gives us encouragement to double down on our efforts. I invite all corporates, government bodies, and my fellow citizens to join hands in building a 'cancer-free' India. Together, we can turn this vision into reality.

Mr. Anil Agarwal Chairman Vedanta Group

# Message from the Chairperson's Desk

I still vividly remember the day we successfully operated on our first patient in April 2018, and the immense fulfilment every member at BALCO Medical Centre experienced when she left the premises fully recovered. Since then, our journey has been marked by a continuous process of learning, adaptation, and growth. And as we reflect on the past six years, we not celebrate onlv our many achievements but also look ahead to a future where we aim to redefine the



BMC has always set high standards for itself and largely lived up to them. One of the pillars of our success has been staying ahead of the fluctuating curve and embracing complexity and uncertainty as presented. Amid turbulent years battling COVID-19, ours was one of the few cancer hospitals across the globe that continued cancer care alongside caring for COVID patients. This was made possible by the dedicated team supporting us, highlighting the importance of collaboration and the power of a humanitarian approach.

As we look into the future and accelerate efforts to meet the rising demand for cancer care, we're going full steam ahead with the recent inauguration of the BMC Cancer Daycare and the expansion of our facilities. Our goal is to integrate compassion with capacity, providing comprehensive services under one roof to support more patients in need. To achieve this, we are placing equal emphasis on both infrastructure and manpower development.



To facilitate a smoother patient journey, we are progressively moving towards a patient-centred system, organised around addressing the unique needs of each patient. In line with this, we are introducing a patient advocacy and navigation desk at BMC. This initiative aims to guide patients through procedures, treatments, and available resources, ensuring timely and efficient care. During BMC Chhattisgarh Cancer Conclave 2023, we organized the KEVAT workshop,

facilitated by the team of Tata Memorial Centre, Mumbai. This workshop, attended by social workers, nurses, patient experience team members, and hospital staff, further equipped our team to provide comprehensive support. By handholding patients and their families, our goal is to provide a deeper understanding of the diagnoses and treatment options available, as well as provide insights to manage their financials despite resource constraints.

We genuinely appreciate the trust you have placed in us as we remain steadfast in our commitment of making cancer care accessible and affordable for all. Let us envision a future where every individual possesses the knowledge, resource, and support needed to lead a healthy, resilient, and cancer-free life.

Mrs. Jyoti Agarwal Chairperson Vedanta Medical Research Foundation

# Message from the Medical Director's Desk

Dear All,

As we work towards our vision for a cancer-free society, BALCO Medical Centre – a part of Vedanta Medical Research Foundation – is delivering international-level cancer care in the heart of Chhattisgarh. This means preventing cancers that are preventable and diagnosing as many cancers early, at stage 0 or stage 1, by driving cancer awareness, hosting education sessions in the community and among physicians, and organizing

cancer screening camps. An early diagnosis will ensure that we don't lose any Indian citizen to cancer, allowing them to lead productive, fulfilling lives and serve the nation.

The incidence of cancer continues to rise, and it is estimated that it will increase to two million annually over the next decade. In Chhattisgarh, tobacco and infection-related cancers constitute almost more than 60% of the cancers seen- hence focus is on tobacco cessation and menstrual hygiene. To shift the needle from late to early-stage diagnosis, we have directed our coordinated efforts towards screening for common cancers - head &neck, breast and cervix cancer. Over the past six years, BMC has actively engaged in screening camps, health talks in communities, residential societies, workplaces, schools, and universities, aiming to reduce the incidence of cancer through risk factor modification. Frontline health workers such as ASHA. Mitanin, and Ayush doctors play a crucial role in our 'train the trainer' program. They are trained to identify early signs, treat common non-communicable diseases, and provide early referrals to BMC or the nearest cancer centre if further interventions are needed.

In 2023, BMC recorded a total of 8,850 new cancer cases, with head and neck cancers, cervix,



gastrointestinal, and breast cancers being the most common. For the first time since its inception in 2018, BMC achieved self-sustainability from April 2023. Concurrently, our occupancy and footfall continue to increase. The number of surgeries performed in 2023 increased by 48%, and there was a 13.3% rise in radiotherapy numbers. Diagnostic services also experienced significant growth, with imaging services increasing by 34.27% and laboratories by 22%.

In the year 2023, numerous hospital facilities were enhanced, including the commissioning of the second linear accelerator, establishment of the BMC Cancer Daycare in the heart of the city to provide care closer to home, an increase in the number of beds in 'Sukh Sarai', addition of an endoscopy unit, bone mineral density, and the launch of the mammography van. Additionally, several key initiatives were launched including the BMC Walkathon, an annual event titled - Walk for 'A' Life on the 5th Foundation Anniversary aimed at raising cancer awareness, the training of ASHA and Mitanin at BMC, and the inaugural annual BMC Chhattisgarh Cancer Conclave to drive clinical excellence locally.

Having dedicated over two decades to treating cancer patients abroad and another decade here in India, I am confident that delivering high-quality, affordable, and accessible cancer care to patients in India, comparable to Western standards, is an achievable goal, provided there is coordination at all levels. Decisive actions are necessary to reduce global and regional inequities. India's increased public expenditure on healthcare, touching 2.1% of GDP in FY23, and the 12% increase in the allocation for Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) to Rs 7200 crore in the Budget 2023-24 are encouraging indications. BMC is supporting national

efforts in cancer control by actively engaging with the National Health Authority and treating patients under the AB-PMJAY scheme. In 2023, 1991 patients have benefited from this scheme, availing cashless state-of-the-art services at BALCO Medical Centre. Besides the Central and State government subsidies, concessions to the tune of INR 2.91 crore were availed by 5387 patients and 437 patients received outside donations for treatment to the tune of 1.85 crore, mainly from the Indian Cancer Society. We initiated the BMC Charitable Fund in November 2022 to bridge gaps in diagnosis and treatment costs for underprivileged patients, benefiting 42 patients amounting to 7.82 lakh till date.

Additionally, we have established a hospital-based cancer registry, initiated the process for a specialist oncology training program (DNB), and are driving local context-specific research. Furthermore, we are participating in efforts led by the Indian Council of Medical Research and the National Cancer Grid. In a significant step forward, a collaboration was set up with Tata Memorial Centre, Mumbai. This partnership will facilitate joint research, education, and training between TMC and BMC.

The future of our hospital is strengthened by our entire team. Our consultants, nursing, administrative, and support staff rank among the top brass in their respective fields. Coupled with state-of-the-art

technology, this forms the core of our delivery system. Beyond being a cancer hospital, we also see ourselves as educators to the next generation of oncologists urging them to raise the standards of cancer care, making every effort to offer each patient the best chance at normal life before, during, and after cancer.

In 2024, we are excited about new opportunities and collaborations at BMC. We are actively working to generate regional data on cancer incidences, assessing the magnitude and burden of cancer in the region. We aim to intensify efforts in improving HPV vaccination for young girls, with a strong emphasis on education and awareness.

We express gratitude for the generous donations received in 2023, which brought us closer to our vision. Together, let's persist in our commitment to excellence in cancer care, creating a better tomorrow for generations to come. This report pays tribute to our patients for whom BALCO Medical Centre strives to deliver the highest quality of care.

Best Regards,

Dr. Bhawna Sirohi Medical Director Vedanta Medical Research Foundation

#### **Governance Structure**

### **Management Committee**

Total Positions: 6

Members: Dr. Bhawna Sirohi (Medical Director), Dr. Alok Kumar Swain (Medical Superintendent), Mr. Ashutosh Kumar Shrivastava (Head - Operations),

Mr. G. Anjaneya Reddy (Head - HR), Ms.

Samiksha Shrivastava (Head - Finance), Dr. Komal Pandit (Medical

Administrator)

The management committee oversees the strategic direction and operational decisions of BALCO Medical Centre. Their primary responsibilities include setting goals, allocating resources, managing risks, and ensuring compliance



with regulations. Additionally, they handle crisis management, succession planning, and stakeholder communication.

#### **Executive Committee**

Total Positions: 12

Members: Dr. Bhawna Sirohi (Medical Director), Dr. Alok Kumar Swain (Medical Superintendent), Dr. Mou Roy (Head - Surgical Oncology), Dr. Deepak Dabkara (Head - Medical Oncology), Mr. Ashutosh Kumar Shrivastava (Head - Operations), Mr. G. Anjaneya Reddy (Head - HR), Ms. Samiksha Shrivastava (Head - Finance), Dr. Jay Rai (Head - Nuclear Medicine), Dr. Sandeep Ojha (Head - Pathology), Dr. Gourav Gupta (Head - Radiation

Oncology), Ms. Shubhangi Chadranakar (Head - Quality), Dr. Komal Pandit (Medical Administrator)

The executive committee at BALCO Medical Centre advises and prioritizes issues for board members to handle. It provides leadership, guidance, and oversight while playing a key role in driving the institute's success. The committee ensures that decisions are made in alignment with the company's mission, vision, and goals.

No need for exco pic!

# + ◆ + ——• Happenings

Month	Date	Event	
January	15 Jan, 2023	Makar Sankranti Organised Kite Festival for patients and their caretakers in the premises of BMC	
	26 Jan, 2023	<ul> <li>Republic Day</li> <li>Flag unfurling ceremony, followed by a parade.</li> <li>Recognized our outstanding employees for their exceptional performance.</li> </ul>	

Month	Date	Event	
February	4 Feb, 2023	<ul> <li>World Cancer Day</li> <li>Organised Health Awareness Talk and Screening Camps</li> <li>Discounted Health Sreening Package for public promoting regular screening and early detection</li> </ul>	
March	8 Mar, 2023	<ul> <li>International Women's Day</li> <li>Organised a Health Awareness Talk at ECHS Polyclinic, Raipur led by Dr. Mou Roy</li> </ul>	
	25 Mar, 2023	<ul> <li>5<sup>th</sup> Foundation Anniversary</li> <li>Installation of Varian Halcyon Radiotherapy Machine</li> <li>5 Years Survivors' Meet</li> <li>Interschool Painting Competition - Say No to Tobacco</li> <li>BMC Walkathon 2023 - Walk For 'A' Life</li> <li>Cultural Evening followed by Dinner</li> </ul>	
April	28 Apr, 2023	Clinical Training Program  Conducted a Clinical Training Program to provide hands-on experience and exposure to real-life medical scenarios to BMC Nursing Staff	
May	5 May, 2023	<ul> <li>World Hand Hygiene Day</li> <li>BMC Nurses organised a series of impactful activities and educational initiatives to raise awareness and promote proper hand hygiene practices</li> <li>Interactive games related to infection control</li> <li>Prize distribution ceremony to acknowledge the best clean unit and individual who maintained outstanding hand hygiene standards</li> <li>Quiz and Poster competition</li> </ul>	
	12 May, 2023	<ul> <li>International Nurse Day</li> <li>BMC Nurses delivered a Health Awareness Session on Self Breast Examination, Hand and Mesnstrual Hygiene, Feeding Care at Nand Ghar, Raipur</li> <li>Nursing Pledge and Lamp Lighting</li> <li>Prize Distribution and Departmental Celebration</li> </ul>	
	31 May, 2023	<ul> <li>World No-Tobacco Day</li> <li>Organised free Cancer Screening Camp at BMC from 31st May to 5th June.</li> </ul>	

Month	Date	Event	
		<ul> <li>Our consultants, including Dr. Bhawna Sirohi, Dr. Mou Roy, and Dr. Gourav Gupta conducted health talks and interviews with MY FM and Radio Mirchi to educate the community about the detrimental effects of tobacco use and the significance of early detection in preventing cancer.</li> </ul>	
June	2 June, 2023	Installation of Bone Marrow Density Machine	
	17 June - 18 June, 2023	<ul> <li>Hosted the first-ever BMC Chhattisgarh Cancer Conclave</li> <li>Live demonstration of Breast Surgery</li> <li>KEVAT – Patient Navigation Workshop</li> <li>Clinical Research and Audit</li> <li>Physician Connect</li> <li>Scientific Program</li> </ul>	
	17 June, 2023	Launch of the Mobile Cancer Detection Van	
	19 June, 2023	World Sickle Cell Anaemia Day  Dr. Neelesh Jain delivered a Health Talk at Kurra village, Rajim in association with Novartis Arogya Parivaar	
	21 June, 2023	<ul> <li>International Yoga Day</li> <li>Celebrated the 9<sup>th</sup> International Yoga Day in collaboration with The Yoga Institute, Raipur. Our special workshop for cancer patients and hospital staff, highlighted the benefits of guided yoga asanas and meditations in cancer care and overall health.</li> <li>Dr. Bhawna Sirohi delivered a health talk in association with IMA, Raipur, highlighting the numerous benefits of yoga for physical and mental well-being.</li> </ul>	
July	1 July, 2023	Doctor's Day and CA Day Celebrated both Doctors' Day and Chartered Accountants' Day to recognize their efforts in contributing to BMC's success.	
August	15 Aug, 2023	<ul> <li>77<sup>th</sup> Independence Day</li> <li>Flag hoisting ceremony, followed by a parade.</li> <li>Organised a blood donation camp in collaboration with Amity University, Raipur.</li> <li>Recognized outstanding employees for their exceptional performance.</li> </ul>	

Month	Date	Event	
August	30 Aug, 2023	<ul> <li>Raksha Bandhan</li> <li>Paediatric patients engaged in fun arts and crafts activity, decorating rakhis for their doctors.</li> </ul>	
September	5 Sep, 2023	Blood Donation Camp in Collaboration with Manorama Industries Limited, Raipur	
	17 Sep, 2023	Vishwakarma Jayanti  Celebrated Vishwakarma Jayanti by honouring the skills and craftsmanship engineers and workers from various departments of the hospital	
·	19 Sep, 2023	<ul> <li>Ganesh Pooja</li> <li>Celebrated Ganesh Pooja with Murti Sthapana Pooja and continued the rituals for five days.</li> <li>Celebrations concluded with a Hawan ceremony.</li> </ul>	
	22 Sep, 2023	<ul> <li>World Rose Day</li> <li>Conducted an informative session led by Dr Rashmi Rai in collaboration with Samarth, a dedicated patient support network within BMC</li> <li>Engaging yoga workshop in association with The Yoga Institute, Raipur was conducted for patients and caretakers.</li> </ul>	
	23 Sep, 2023	<ul> <li>Lymphoma Awareness Month</li> <li>Organized engaging activities for children at the paediatric daycare in collaboration with Zydus Lifesciences Limited.</li> </ul>	
	28 Sep, 2023	<ul> <li>Inaugurated the state-of-the-art Endoscopy Suite</li> <li>To conduct Upper GI Endoscopy and diagnose Esophageal and Stomach Cancers in-house. Additionally, perform colonoscopy for the diagnosis of cancers in the larger and smaller intestines.</li> <li>Shri S S Bajaj ji, Chairman, NRANVP joined as the chief guest for the e v e n t .</li> </ul>	
October	9 Oct, 2023	<ul> <li>94.3 MYFM – My Biggest Kitty</li> <li>BMC served as the medical partner for "The Biggest Kitty" organized by 94.3 MYFM, Raipur. Over the course of 10 days, the event brought</li> </ul>	

Month	Date	Event
October	9 Oct, 2023	<ul> <li>together a diverse audience of more than 1000 women across 15 different kitty groups, representing 10 residential societies.</li> <li>In observance of Breast Cancer Awareness Month, BMC also presented the "Pledge to Protect" campaign at the event offering discounted screening packages.</li> </ul>
	10 Oct, 2023	Performed the 100th Microvascular Reconstruction of BMC
	12 Oct, 2023	<ul> <li>BMC Oncology Webinar (BOW)</li> <li>Conducted the first session of BMC Oncology Webinar series themed, 'HER2-Positive Breast Cancer'. The session was chaired by Dr. Nita Nair, Consultant, Breast Oncosurgeon, Tata Memorial Hospital, Mumbai and Dr. Shona Nag, Senior Consultant, Medical Oncology and Director of Oncology, Sahyadri Group of Hospitals, Pune, India.</li> </ul>
	14 Oct, 2023	<ul> <li>Samarth - Breast Cancer Survivors' Meet</li> <li>Hosted Samarth, our annual flagship Breast Cancer survivors' meet led by Dr. Noopur Priya.</li> <li>Expert trainers from The Yoga Institute, Raipur, and Team F95, Raipur, provided practical workshop.</li> <li>Survivors and hospital staff presented engaging performances, skits, and shared personal journeys.</li> </ul>
	21 Oct, 2023	Board Members of Tasna Association Visited BMC  The delegation, led by Annika Gartenmann, TASNA's President accompanied by Nina Müller, Vice President, along with Thomas Weber and Cornelia Hotz Oesch, visited BMC to observe the impact of the program supported by TASNA in collaboration with the Cuddles Foundation, Mumbai, and interact with paediatric patients benefiting from it.
November	7 Nov, 2023	<ul> <li>National Cancer Awareness Day</li> <li>Organised a Health Screening &amp; Awareness Camp in collaboration with Vedanta Alumina Ltd., Lanjigarh</li> </ul>
	9 Nov, 2023	<ul> <li>Thriving and Inspiring</li> <li>Aired the first episode of 'Thriving and Inspiring', a series hosted by Dr. Bhawna Sirohi where she engaged in candid conversations with 3 young cancer survivors to learn about their journeys - from early symptoms to treatment and recovery.</li> </ul>

Month	Date	Event	
November	10 Nov, 2023	Diwali  Organised Laxmi Pujan at premises followed by Rangoli Competition, fun games and activities for all staff members and Diwali gift distribution.	
December	21 Dec, 2023	<ul> <li>Inauguration of state-of-the-art BMC Cancer Daycare</li> <li>Eight bedded Daycare Centre was inaugurated in the esteemed presence of Shri Arun Sao Ji, Hon'ble Deputy Chief Minister of Chhattisgarh, Mrs. Jyoti Agarwal, Chairperson, Vedanta Medical Research Foundation, Mr. Rajesh Kumar, CEO, BALCO, and Dr. Bhawna Sirohi, Medical Director, Vedanta Medical Research Foundation</li> </ul>	
	23 Dec, 2023	<ul> <li>Smile 2023</li> <li>Hosted our second survivors' meet – SMILE 2023 dedicated to honouring the courage, strength, and survivorship of paediatric cancer patients and survivors led by Dr Ruchi Aujla.</li> <li>Members of Lions Club, Raipur Capital donated 11 wheelchairs to BMC and organised an engaging puppet show that brought smiles to the faces of the children.</li> </ul>	
	25 Dec, 2023	<ul> <li>Christmas</li> <li>Nursing Staff, accompanied by Santa Claus, visited all hospital wards and Sukh Sarai spreading joy with Christmas carols, cheers, and distributed Santa caps and toffees to patients, caretakers, and hospital staff.</li> </ul>	
	31 Dec, 2023	<ul> <li>New Year's Eve</li> <li>The Medical Director addressed the gathering reflecting on the eventful year at BMC and congratulated the team on numerous milestones. The celebration continued with games, activities, and a buffet of snacks for everyone to enjoy.</li> </ul>	

# **Community Development**

Screening Camps and Health Talks Conducted in Chhattisgarh:

District	Total No of Screening Camps	Beneficiaries
Surajpur	1	54
Sarguja	1	28
Jashpur	1	69
Korba	3	96
Bilaspur	2	66
Sarangarh	1	19
Raigarh	3	124
Baloda Bazar	1	60
Durg	2	149
Raipur	12	449
Rajnandgaon	1	24
Gariabandh	1	5
Bastar	2	92
Kondagaon	1	82
Dantewada	1	22
Total	33	1339

District	Total No of Screening Camps	Beneficiaries
Bilaspur	1	100
Korba	3	125
Raigarh	1	200
Durg	1	30
Raipur	32	3017
Bastar	1	250
Kondagaon	1	80
Dantewada	1	70
Total	41	3872

Screening Camps and Health Talks Conducted in Odisha:

District	Total no of Camps	Beneficiaries
Jharsuguda	1	57
Bargarh	2	48
Sambalpur	2	83
Bolangir	3	157
Nuapada	1	30
Kalahandi	3	201
Total	12	576

District	Total No of Health Talks	Beneficiaries
Bargarh	1	250
Bhawanipatna	1	60
Kantabanji	1	300
Total	3	610

Screening Camps and Health Talks Conducted in Madhya Pradesh:

District	Total No of Camps	Beneficiaries
Shahdol	2	72
Anuppur	1	120
Total	12	576

District	Total No of Health Talks	Beneficiaries
Shahdol	1	70
Total	1	70

# Outreach OPDs:

State	District	Total No of OPD	Beneficiaries
Chhattisgarh	Sarguja	6	30
Ciliatusgaiii	Raigarh	5	48
	Sarangarh	4	9
	Korba	3	39
	Kawardha	24	193
	Gariabandh	10	36
	Kondagaon	3	10
Odisha	Bargarh	7	29
Total		62	394











Honouring National Cancer Survivor Month, BMC hosted the first-ever Chhattisgarh Cancer Conclave on the 17th and 18th of June, a momentous event that brought together renowned experts, healthcare professionals, and industry leaders in the field of cancer care. The two-day event witnessed a wide array of informative sessions, engaging live workshops, and thought-provoking panel discussions that focused on key topics such as advancements in treatment modalities, early detection strategies, patient-centric care, and cutting-edge research breakthroughs.

The conclave was honoured by the virtual presence of Mr Anil Agarwal, Chairman, Vedanta Group, Mrs. Jyoti Agarwal, Chairperson, Balco Medical Centre, Mr. Rajesh Kumar, CEO, BALCO, Padmashree Dr. R A Badwe, Director, TMC, Mumbai, Dr P Arun, Director, TMC, Kolkata, Dr. Sanjay Popat, President, British Thoracic Oncology Group, Royal Marsden Hospital, London and many renowned faculty members. oncologists, radiation and medical oncologists, epidemiologists, preventive oncologists, physicians specialities. from allied general medicine practitioners and trainees from all over the country. Over 300 delegates attended the event and received CME credit points for national conference from the Chhattisgarh Medical Council, Raipur, based on their registration categories.

#### Key Highlights of the event:

Live demonstration of Breast Surgery: The workshop gave a deep insight into the current management of breast cancer and shed light on patient selection for upfront surgery vs. neoadjuvant chemotherapy, targeted therapy, and immunotherapy followed by reconstruction techniques. Through three different case capsules, the workshop also focused on the management of axilla-like sentinel lymph node mapping and oncoplastic breast surgery which has proven to improve the quality of life in patients' post-surgery. The workshop was attended by 42 delegates.

Padmashree Dr. R.A. Badwe, Director, TMC, Mumbai demonstrated the technique of Peritumoral infiltration of local anaesthesia, which has shown to reduce recurrence rates in breast cancer. This technique was discussed at length and received applause during the workshop.

**Case 1:** Sentinel lymph node mapping by dual tracer technique and round block oncoplasty was demonstrated by Dr. Joy Ghose, faculty from Pune along with Dr. Ajit Agarwal and Dr. Dipanjan Biswas from BMC.

**Case 2:** Oncoplastic breast surgery by matrix rotation flap for upper inner quadrant tumour was demonstrated by Dr. Geeta Kadayaprath, Max Super Speciality Hospital, Delhi along with Dr. Mou Roy, BMC.

Case 3: Skin-sparing mastectomy with whole breast reconstruction with latissimus dorsi flap and implant by Dr. Shalaka Joshi, TMC, Mumbai along with Dr. Dipmalya Chatterjee and Dr. Noopur Priya from BMC.

#### KEVAT – A Patient Navigation Workshop:

Patient Navigators are crucial for cancer patients. They guide them through multiple procedures, treatments, and resources, ensuring timely and efficient care. By handholding patients and their families, they provide an understanding of diagnoses and treatment options. The workshop aimed to enhance the understanding and expertise in patient navigation, equipping participants with comprehensive training on medical terminologies, cancer treatment protocols, supportive care options, and integrative therapies. Through detailed case studies from around the world, Ms. Nishu Goel, Program Head, KEVAT, TMC, Mumbai along with Dr. Vinit Sawant and Dr. Tanzim Sayyed shared insights on the successful implementation of the program.

The workshop was attended by 40+ delegates from leading hospitals in Central India, including MSWs, nurses, patient experience team members, and hospital staff. It focused on promoting attitudinal change, highlighting the significance of optimal socio-economic support and maintaining equitable balance despite resource constraints.

#### Clinical Research and Audit:

To make cancer research a priority and suggest prevention and treatments which are cost-effective, research creates new knowledge about what works and what is best. Clinical audit is a way of finding out whether what we are doing is right and follows the current best practice.

With more than 50 delegates in attendance, this session was spearheaded by speakers Dr. Prachi Patil, Dr. Reena Engineer from TMC, Mumbai and Dr Bhawna Sirohi from BMC. They shared valuable insights on the types of research, the process of framing a clinical

research question, clinical audits, and components of a research protocol.

#### **Physician Connect:**

To provide a platform for continuous medical education and enable physicians to expand their knowledge base, the Physician Connect session covered diverse topics, including oncology for non-oncologists, nuclear medicine applications beyond oncology, sickle cell anaemia, thalassemia referral criteria, physicians' role in an oncology setup, and paediatric cancer diagnosis. The interactive workshop garnered great interest from physicians who were eager to learn about new advancements in cancer treatment and early detection tests.

Dr. Bhawna Sirohi, Medical Director, BMC highlighted the importance of specific tests for early cancer detection, such as stool occult blood (FIT method), mammography for women above 45 years, PAP smear, oral examination and low dose chest CT for smokers. The workshop also emphasized the significance of HPV vaccination in preventing cervical cancer. More than 60 participants actively engaged throughout the session.

#### Main Scientific Program:

With seven distinct panels, each dedicated to a specific area of cancer care, the Main Scientific Program clocked an attendance of more than 300 delegates. Renowned national and international faculty members delivered informative and insightful presentations, followed by a Q&A round to share their expertise.

#### Session 1: Gastrointestinal Cancer

By exploring real-world case studies, experts extensively discussed the diagnosis, management, and prognostic factors of stomach cancer and delved into the evaluation and outcomes of stomach cancer treatment. Prof Shailesh Shrikhande, Dy Director, TMH, Mumbai highlighted the need for driving excellence in all patients by following the principles of cancer surgery.

# Session 2: Lung Cancer

The panel discussed the modern management of lung cancer, addressing key concepts across a range of clinical scenarios and recent advances in cancer management paradigm.

Dr. Sanjay Popat, a globally recognized expert in lung cancer, mesothelioma, and thymus cancer, serving as a Consultant Medical Oncologist at The Royal Marsden, London and Professor of Thoracic Oncology at the Institute of Cancer Research, London delivered an extensive presentation on 'Delivering excellence in Lung cancer in resource-limited settings: Optimizing current treatment sequencing'.

#### Session 3: Bone and Soft Tissue Sarcoma

The discussion focused on a patient with of metastatic Ewing's sarcoma in a young girl, with insights from orthopaedic surgeons, medical oncologists, and radiation oncologists from across the country.

### Session 4: Gynaecological Cancer

Through various case studies, the session highlighted that solid cystic ovarian lesions should not be excised laparoscopically due to the risk of upstaging apparent early-stage tumours. Limited visualization with laparoscopic approaches may result in the omission of additional tumour or microscopic spread. Open surgical procedures, such as laparotomy, were emphasized as the preferred method for accurate staging and optimal treatment decisions.

#### Session 5: Breast Cancer

Case-based discussions and the latest trends in axilla management, such as sentinel lymph node mapping and oncoplastic breast surgery, known to improve the quality-of-life post-surgery in patients were highlighted. The panel also focused on the latest advancements and techniques in breast cancer treatment such as Peritumoral infiltration of local anaesthesia, which has shown to reduce recurrence rates in breast cancer.

#### Session 6: Head and Neck Cancer

Real-life case-based discussions, covering topics like locally advanced oral cancer, reconstruction challenges in case of margin positivity, and multidisciplinary approaches for inoperable tumours. Prof Anil D'Cruz, immediate past president of UICC discussed day to day challenges facing clinicians in tackling very advanced stages of oral cancers that Indian clinicians see compared to the west.

#### Session 7: Genitourinary Cancer

The session focused on prostate cancer, one of the most prevalent cancers in men, and explored various aspects of prostate cancer management, including imaging, diagnosis, and emerging therapies such as Leutitium-177-PSMA therapy. Attendees gained valuable insights about when, where and what diagnostic and therapeutic tools should be used in cases of prostate cancer. Dr Vedang Murthy, renowned radiation oncologist from TMH, Mumbai gave a fascinating talk on Creating Opportunity from Challenges.

#### Press Conference:

The press conference held during the Conclave provided an opportunity to highlight the significance of the event and share key insights with the media for further amplification.

Mrs. Jyoti Agarwal, Chairperson of BMC, accentuated the institution's holistic approach, which includes addressing the multidimensional needs of patients through services such as clinical psychology, nutrition guidance, and rehabilitation therapies. During the conference, she announced the expansion of BMC's day-care facility and increased accommodation capacity to meet the growing demand for cancer care in the region. Additionally, she also acknowledged the significant role of media professionals in the society by offering them a 10% discount on all services.

Padmashree Dr. R A Badwe, the chief guest of the event and Director of Tata Memorial Hospital, Mumbai emphasized the importance of accessible cancer care for all. He highlighted the challenges posed by

limited healthcare access and late-stage diagnoses, underscoring the need for innovative approaches. Dr. Badwe's pioneering work on "Timing of Surgery for Breast Cancer" has shown a remarkable 25% reduction in death rates.

Dr. Mou Roy, Director of Surgical & Clinical Oncology at BMC, discussed the vital role of the live surgery workshop in providing surgeons with valuable insights such as patient selection, neoadjuvant

chemotherapy, targeted therapy, immunotherapy, and reconstruction techniques. The value of case-based discussions and the latest trends in axilla management, such as sentinel lymph node mapping and oncoplastic breast surgery were also discussed.

The virtual presence of Mr. Anil Agarwal, Chairman of the Vedanta Group, added prestige to the event as he shared his larger vision for a cancer-free society.

### Mobile Cancer Detection Van



On 17th June, BALCO Medical Centre launched a state-of-the-art Mammography Van, a mobile unit dedicated to providing accessible and comprehensive Equipped advanced screening. with cancer technologies such as a Mammography machine and Thermal Scanning machine, team of experienced healthcare professionals offer a range of essential including screenings, oral examination. gynaecological examination, and Pap smear.



Additionally, if advised, FNAC (Fine Needle Aspiration Cytology) and Brush cytology services are also provided to ensure accurate diagnosis and timely intervention.

Through this van, BMC aims to bring 'cancer care closer to home' empowering individuals in the remotest of locations to prioritize their overall health and early intervention for improved outcomes.

# **BMC Cancer Daycare**





On December 21, 2023, we inaugurated the BMC Cancer Daycare Centre marking a significant milestone in bringing advanced cancer care to the heart of Raipur city.

The centre, equipped with eight chemotherapy units and state-of-the-art facilities will offer chemotherapy, immunotherapy, targeted therapy, sample and report collection, OPD consultations, and associated cancer support services.

Amenities at BMC Cancer Daycare meet international standards and will cater to patients not only in Raipur but across Chhattisgarh and neighboring states. Experienced and renowned oncologists will provide OPD consultations from 9 AM to 7 PM six days a week. The thematic ambience has been designed to be soothing and pleasant for patients, with chemotherapy chambers featuring abundant natural lighting. International-level admixing facility with an in-house onco-pharmacist will ensure the utmost safety of our patients and faster delivery of chemotherapy drugs. The centre also has an in-house





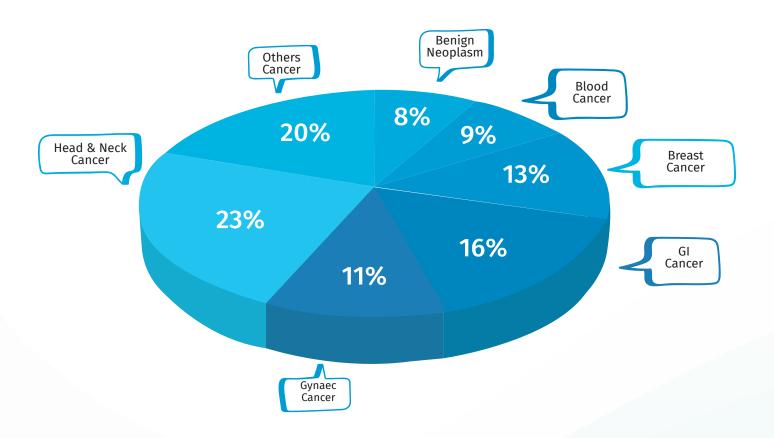
cafe, which will cater to meals for patients and their caretakers while they undergo treatment.

As central India's largest and most advanced cancer institute, BALCO Medical Centre will serve as the main hub, providing 24-hour comprehensive cancer care services. Skilled team of oncologists and state-of-the-art machines will facilitate advanced surgeries, chemotherapy, radiation therapy, PET scan, SPECT scan, HDT, LDT therapy, bone marrow transplant, ICU facilities, micro-incision surgeries, pain and palliative care, and 24/7 lab services, blood bank, pharmacy, call centre, and emergency services.

The Centre was inaugurated in the esteemed presence of Shri Arun Sao Ji, Hon'ble Deputy Chief Minister of Chhattisgarh. Mrs. Jyoti Agarwal, Chairperson, BALCO Medical Centre, Mr. Rajesh Kumar, CEO, BALCO, and Dr. Bhawna Sirohi, Medical Director, BALCO Medical Centre, graced the event, marking a significant moment in our commitment to advanced #CancerCareForAll.



Case Mix of Registered Patients
BALCO Medical Centre recorded a total of 8,850 new cancer cases in 2023



# **Radiation Oncology**

# Head of Department: Dr. Gourav Gupta



Team: Dr. R Shreyas (Consultant), Dr. Bhupen Prasad (Junior Consultant)

The Radiation Oncology department comprises of 15 members consisting of 3 consultants, 1 senior resident, 1 resident medical officer, 1 radiation safety officer, 2 medical physicists and 7 radiotherapy technicians. Since its inception in 2018 with one Varian linear accelerator, the department has significantly expanded its capabilities. Now, boasting two linear accelerators—the Varian True Beam and Halcyon—since 2023, it stands as one of the most advanced radiation therapy departments in Central India. With Varian Gamma Med Plus, Ir-192 HDR Brachytherapy is offered to 25-30 patients per month. This method delivers high radiation dose to the target and reduces the impact on surrounding tissues. Thus delivering better tumor response with minimal side effects

The team is highly trained in personalizing the

IGRT	779
BRACHYTHERAPY SESSIONS	279
BLOOD IRRADIATION	171
IMRT	26
SRT	7
SBRT	6

treatment to ensure that the treatment is delivered safely and accurately with minimal side effects. It is estimated that approximately half of cancer patients will benefit from radiation therapy as part of their overall cancer treatment. This means that about 1 in 2 patients with cancer may benefit from radiation therapy at some point during their illness.

#### Services:

The department adheres to all statutory compliances and ensures that there is no harm to staff or patients with extra radiations. Recently the department cleared the NABH audit with no exceptions and the Atomic energy review board (AERB) inspection done with no observations.

In 2023, a total of 1279 patients received radiotherapy. The department offered the following scope of services, along with the number of patients served in each service for the year 2023:

DIBH	5
CSI	2
PET CT BASED PLANNING	2
RPM	1
EXTRACORPOREAL	1

Statutory- Department has successfully conducted License renewal process and got the license for upgraded True Beam.

#### Education/CMEs/Trainings:

The department consistently conducts academic classes and on-the-job training sessions for both technicians and nursing staff. Additionally, interdepartmental training is provided for clinical staff to ensure a comprehensive understanding of radiation therapy, radiation safety, patient safety, and nutritional therapy. The faculty actively participated in developing care paths for carcinoma cervix and carcinoma head and neck

#### Research:

### Departmental Clinical Audits conducted:

1. Analysis of factors responsible for incomplete radiation treatment for financial year 2022-2023

#### Research:

1. Dosimetric Evaluation of Radiation Treatment Planning for Simultanous Integrated Boost Technique Using Monte Carlo simulation

Authors: Ravindra Shende, Gourav Gupta Publication

Date: 01/07/2023 Publisher: Medknow Journal: Journal of Medical Physics

2. Dose Fluence Smoothing Reduce the Complexity of the Intensity: Modulated Radiation Therapy Treatment Plan? A Dosimetric Analysis

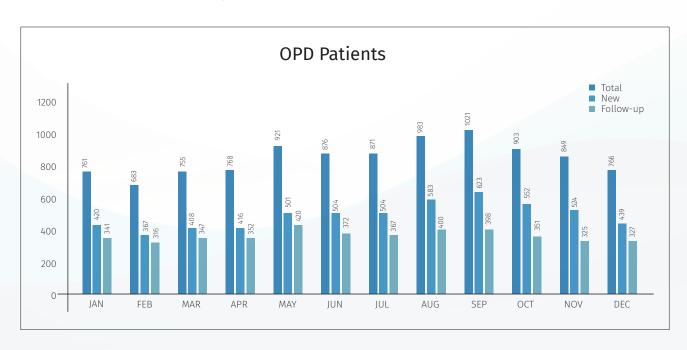
Authors: Dinesh Saroj Publication Date: Jan-2023 Journal: Journal of Medical Physics

3. Assessment of Treatment Plan Quality between Flattening Filter and Flattening Filter Free Photon Beam for Carcinoma of the Esophagous with IMRT Technique

Authors: Dinesh Saroj Publication Date: June-2023 Journal: Journal of Biomedical Physics and Engineering.

4. Association between deranged liver function Tests and radiological severity indicator in COVID-19 patients.

Authors: Tripathi Ajay P, Singh K, Gupta Prabhakar. Central India journal of medical research.2023;2(2): 24-26



Case Mix: - Number of patients treated at each sub site in Year 2023:

Sub Site	No. of patients
HEAD & NECK	438
PALLIATIVE METASTATIC	216
CA BREAST	139
CA CERVIX	96
CA RECTUM	24
CA OESOPHAGUS	22
CA ENDOMETRIUM	11
GBM/ ASTROCYTOMA	10
OTHER	10
CA LUNG	8
SARCOMA	8

Sub Site	No. of patients
EXTREMITIES	7
LYMPHOMA	6
DLBCL	6
CA PROSTATE	5
CA VULVA	5
CA STOMACH	2
CA VAGINAL VAULT	2
CA PANCREAS	1
CA URETHRA	1
CA GE JUNCTION	1
CML	1

In-patient admission: - The department had total 369 Elective admissions and 1229 cross consultations.

# Educational activities:

# 1. National:

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
01	Dr. Gourav Gupta	Annual Conference of surgeons of Chhattisgarh.	8-9 April, 2023	Balaji medical college, Raipur	Invited guest faculty
02	Dr. Gourav Gupta	Workshop on clinical research & protocol development on held virtually	18-19 Aug, 2023	TMH, Mumbai	Delegate
03	Mr. Deepak Rahangdale	9 <sup>th</sup> International & 27 <sup>th</sup> National Conference of Radiation Therapy Technologists of India	14-15 Oct, 2023	Kokilaben Dhirubhai Ambani hospital, Mumbai	Speaker

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
04	Ms. Aishwarya	9 <sup>th</sup> International & 27 <sup>th</sup> National Conference of Radiation Therapy technologists of India	14-15 Oct	Kokilaben Dhirubhai Ambani hospital, Mumbai	Speaker
05	Dr. Gourav Gupta	BMC-cancer conclave-2023, Raipur	17-18 June 23	Balco Medical Centre	Speaker
06	Dr. Shreyas Reddy	BMC-cancer conclave-2023, Raipur	17-18 June 23	Balco Medical Centre	Panelist

# 2. International:

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	*Participation as
01	Mr. Dinesh Saroj	International Conference on Medical Physics 2023 AMPICON-2023, AOCMP-2023, ISEACOMP-2023	6-9 Dec	BARC with ICMP & AMPICON	Poster presentation
02	Mr. Dinesh Saroj	International Conference On Medical Physics 2023 AMPICON-2023, AOCMP-2023, ISEACOMP-2023	6-9 Dec	BARC with ICMP & AMPICON	Poster presentation
03	Mr. Dinesh Saroj	International Conference On Medical Physics 2023 AMPICON-2023, AOCMP-2023, ISEACOMP-2023	6-9 Dec	BARC with ICMP & AMPICON	Poster presentation

### 3. Workshops/ Certificate course:

01	Dr. Shreyas Reddy	IAPC	1 April 23	CCEPC by IAPC	Certificate course
02	Dr. Shreyas Reddy	Advanced technologies in radiation oncology	Nov-Dec 2023	AROI- ESTRO	Workshop
03	Dr. Gourav Gupta	GCP course, virtually	13 May 23	TMH	Certificate course
04	Radiation Department	Varian courses.	2023	ВМС	Application training /Hands on

# **Departmental Achievements:**

1. Membership

SN	Name of consultants	Designation	Department
01	Dr. Gourav Gupta	AROI/ MP CGAROI/ Indian brachytherapy society	Radiation Oncology
02	Dr. Shreyas Reedy	ESMO/ AROI/ AROI Karnataka	Radiation Oncology

# 2. Key performance Indicators

Outcome indicators – 30-day mortality; 0.7%
 for one year for definitive and adjuvant

treatment.

Complication rates: within accepted range.

3. Process indicator – percentage compliance with evidence based clinical guidelines:

Category	No of patients	Evidence based decision (%)	Treatment compliance to completion of radiation treatment (%)
Private	239	100%	100%
General	780	100%	89.5%

- 4. Appointment to international /national Committees and task force
- Dr. Gourav Gupta: Member of Executive committee of AROI MP CG.
- Physics in treatment of cancer radiotherapy
   Author: Ravindra Shende Publication Date:

2022/1/1

**Book:** Photophysics and Nanophysics in

Therapeutics Pages: 163-192 Publisher: Elsevier

5. Books/chapters in academic texts.

# **Surgical Oncology**

Head of Department: Dr. Mou Roy



**Team:** Dr. Ajit Agrawal (Senior Consultant), Dr. Dipmalya Chatterjee (Senior Consultant), Dr. Dipanjan Biswas (Consultant), Dr. Rashmi Rai (Consultant), Dr. Noopur Priya (Consultant), Dr. Rudra Pratap Singh (Consultant)

The Department of Surgical Oncology consists of 12 members, including 7 consultants, 1 FHNO fellow, 3 resident medical officers, and 1 coordinator. Offering clinical evaluation, diagnostic work-up, including biopsies for various types of cancer, as well as treatment planning and surgery, the department is supported by a highly trained and experienced team of surgeons and specialized staff in the field of oncology.

The department takes pride in its expertise in performing complex head and neck surgeries for advanced cancers. Notably, it has conducted the largest number of microvascular reconstructions in Chhattisgarh, achieving the highest success rate. Moreover, the Department of Surgical Oncology has introduced several pioneering techniques in the region, including super microsurgery in breast reconstruction. femur reconstruction with vascularized fibula bone, extracorporeal irradiation of femur autograft, limb preservation in sarcomas, and advanced technologies like virtual surgical planning and CAD-CAM-based 3D printing.

#### Services:

The team routinely performs a wide range of complex surgeries, including cytoreductive surgeries with HIPEC, liver resection, thoracotomy, pneumonectomy, mediastinal tumor surgeries, esophagectomy with gastric pull-up, esophagectomy with colonic transposition, laryngo-pharyngo-esophagectomy, as well as organ-conservation surgeries such as inter-sphincteric resection for very low rectal cancers, breast conserving surgery and oncoplasty. The team specializes in fertility-preserving surgeries like radical trachelectomy, and offers minimally invasive procedures for gynecological, colorectal, and genitourinary cancers, including laparoscopic adrenalectomy.

The surgical team at BMC have also successfully performed excisions of IVC sarcoma and complex RP sarcomas requiring compartmental resection. They specialize in complex bone and soft tissue surgeries such as megaprosthesis reconstruction surgeries, excision of soft tissue sarcomas, management of benign bone tumors, rotationplasty, complex amputations, and biological reconstructions including cryotherapy and ECRT. Moreover, the department excels in pelvic resection and reconstructions, as well as the management of metastatic diseases in long bones and the spine.

The case mix for surgeries done in the year 2023 is as follows

SURGERY	Total
HEAD AND NECK	538
GENERAL SURGERY/PROCEDURE	311
GASTOINTESTINAL	236
BREAST	197
GYNAECOLOGY	114
ONLYPLASTIC AND RECONSTRUCTIVE	98
SKIN/BONE / SOFT TISSUE	77

SURGERY	Total
GENITO URINARY	56
THORAX	6
ORTHOPAEDICS	4
TOTAL SURGERY	1637
MAJOR SURGERIES	899
MINOR SURGERIES	738

### Awareness Program / CME /health talk:

Faculty members are actively involved in creating cancer awareness among the general population and connecting with various medical professionals in pursuit of providing cancer care to all.

#### Education/CMEs/Trainings:

- The department regularly conducts academic classes and on-the-job training for the nursing staff, along with interdepartmental training for clinical staff to understand the basics of surgical oncology.
- The FHNO fellowship is currently one of the ongoing academic programs in the Department of Surgical Oncology, with one fellow per year.

#### Director:

Dr Mou Roy, Associate Director: Dr Ajit Agrawal, Program Coordinator: Dr Rashmi Rai

- Training for various patient care-related procedures is provided, such as tracheostomy care and wound care, and staff members are part of the departmental audit program to ensure continuous improvement in care.
- Alongside the HIC team, there is continuous monitoring of chemo port care and post-insertion infections.
- A care path was developed for head and neck cancer patients to ensure standardization of care.
- Dr. Mou Roy conducted a Breast Oncoplasty workshop during the BMC Chhattisgarh Cancer Conclave.
- Dr. Ajit Agrawal led an Upper GI and Pancreatic Surgery Workshop in collaboration with TMH, Mumbai

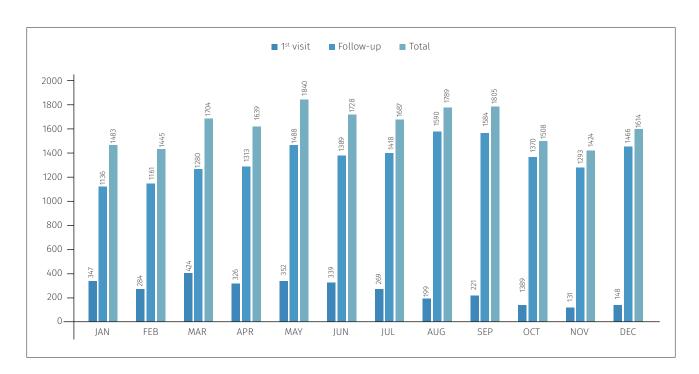
#### Research:

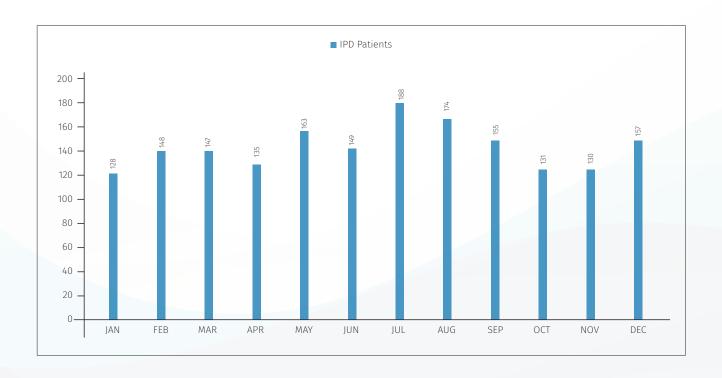
Departmental Clinical Audits conducted:

Project No	Title	PI	Current status (Ongoing/ closed)	Basic / Clinical Research
01	Flap monitoring in microvascular reconstruction	Dr. Dipmalya Chatterjee	Closed	
02	Microvascular reconstruction – success rate, re-exploration rate and salvage rate	Dr. Dipmalya Chatterjee	Closed	

#### Research:

 Practice Patterns and Survival in Patients with Resected Pancreatic Ductal Adenocarcinomas (PDAC) – Results from the Multicentre Indian Pancreatic & Periampullary Adenocarcinoma Project (MIPPAP) Study. J Gastrointest Cancer. 2023 Dec;54(4):1338-1346.





# Educational activities:

# 1. National:

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as	
01	Dr. Mou Roy	ABSICON - National	28/7/23 to 30/07/23	ABSI	Faculty	
02	Dr. Mou Roy	Oncocon 2023- National			Faculty	
03	Dr. Mou Roy	Rectal Cancer Update National	28/7/23 to 30/07/23	ABSI	Faculty	
04	Dr. Mou Roy	Cholangio CaInternational	1/11/23 TMH Mumbai to 2/11/23		Faculty	
05	Dr. Mou Roy	Choosing Wisely – International	1/11/23 TMH Mumbai		Delegate	
06	Dr. Mou Roy	Central India Oncology Summit – National	14/05/23	ASN + Nagpur Oncology Group	Faculty Guest Speaker	
07	Dr. Mou Roy	IMACGCON	18/03/23 IMA Durg to 19/03/23		Guest Speaker	
08	Dr. Mou Roy	CG ASICON Local	April ASI C.G 2023		Guest Speaker	
09	Dr. Mou Roy	Oral Cancer Comprehensive Management	14 AIIMS Raipur October 2023		Faculty	
10	Dr. Mou Roy	Good Clinical Practice	14 May 2023	TMH Mumbai	Delegate	

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as	
11	Dr. Mou Roy	BMC Chhattisgarh Cancer Conclave	16 June BMC Raipur 2023		Surgical Work shop Organizer	
12	Dr. Ajit Agarwal	Biostatistics and Research Methodology Course	18 Aug – 20 Aug 2023	TMC Kolkata	Delegate	
13	Dr. Ajit Agarwal	AMASICON	2 Nov-5 Nov 2023	Association of Minimal Access Surgeons Of India (AMASI)	Delegate	
14	Dr. Dipmalya Chatterjee	APSICON 2023	26 Dec – 30 Dec 2023	Association of Plastic Surgeons of India	Speaker	
15	Dr. Dipmalya Chatterjee	Comprehensive Management of Oral Cavity Carcinoma	14 Oct 2023	FHNO and ENT association Raipur	Speaker	
16	Dr Dipmalya Chatterjee	WSRM 2023 (Singapore)	17 Aug-19 Aug, 2023	World Society for Reconstructive Microsurgeons	Speaker	
17	Dr Dipanjan	BMC Conclave	June 2023	BMC , Raipur	Organiser	
18	Dr. Dipanjan	Indian Cancer Congress	2 Nov to 5 Nov 2023	Mumbai	Delegate	
19	Dr. Dipanjan	CG ASICON	Apr 2023	Shri Balaji Hospital	Faculty/ Panelist	
20	Dr. Rashmi Rai	26 <sup>th</sup> MIDCOMS Conference and 12 <sup>th</sup> PG Convention of AOMSI 2023 Conference	20 Jul -22 AOMSI Jul 2023		Faculty/ panelist "challenges in head & neck oncology"	

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as	
21	Dr. Rashmi Rai	TMH oral Onco surgery work shop	29 Jul 23	Tata memorial centre , ACTREC , Mumbai	delegate	
22	Dr. Rashmi Rai	47 <sup>th</sup> Annual Conference of AOMSI Delhi NCR	23-25 AOMSI Nov, 2023		Speaker/Facuul ty: presented paper on Level II B neck dissection: era if selective neck dissection	
23	Dr. Rashmi Rai	47th Annual Conference of AOMSI Delhi NCR	23-25 Nov, 2023	AOMSI	Faculty/ panelist: Are we overdoing Neck?	
2 24	Dr. Rudra Pratap Singh Thakur	Chhattisgarh Orthopedic association conference 2023	20 Jan- 22 Jan 2023	CGIOA	Faculty Lecture on "Approach to lytic lesions of bone"	
25	Dr. Rudra Pratap Singh Thakur	IMSOS 2023, Chennai	3 Mar- 5 Mar 2023	IMSOS	Delegate Presented poster on Osteosarcoma of pelvis	
26	Dr. Rudra Pratap Singh Thakur	Master Course in Orthopedic Oncology	8 Sep – 10 Sep 2023	Sarcoma education foundation	Faculty- Presented paper on small juxta articular fragment reconstruction	
27	Dr. Rudra Pratap Singh Thakur	BMC Chhattisgarh Cancer Conclave 2023	17 Jun – 18 Jun 2023	BALCO Medical Centre	Faculty Moderator in BST Case discussion	

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates Organizing body		Participation as	
28	Dr. Noopur Priya	CGASICON	Apr 2023	Shri Balaji Hospital	Delegate	
29	Dr. Noopur Priya	AMASICON	Nov 2023	Shri Balaji Hospital	Delegate	
30	Dr. Noopur Priya	ABSICON	Aug 2023	ABSI	Delegate	
31	Dr. Noopur Priya	Central oncology summit	Jul 2023	Nagpur Oncology	Faculty	

# 2. International:

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates Organizing body		Participation as
01	Dr. Ajit Agarwal	International 16 Nov CMC Vellore Colorectal Symposium 2023		Delegate	
02	Dr. Ajit Agarwal	Annual Update In Peritoneal Surface Malignancies	Peritoneal Surface -15 Apr Peritoneal		Delegate
03	Dr. Dipanjan Biswas	Humans at the cutting edge of Robotic Surgery	6 Oct to 8 Oct, 2023	Vattikuti Foundation, Ghent , Belgium	Delegate

# 3. Workshops/ Certificate course

01	Dr. Mou Roy	GCP course, virtually	13 May, 2023	ТМН	Certificate course
02	Dr. Rashmi Rai	GCP course, virtually	13 May, 2023	TMH	Certificate course
03	Dr. Rashmi Rai	TMH observer ship	3 Jul – 31 Jul 2023	ТМН	Observership at H&N unit C & preventive oncology

# Departmental Achievements:

# 1. Membership

S.NO	Name of consultants	Member of
01	Dr. Mou Roy	IASO ,ABSI ,AGOI , IAGES , AMASI and IMA
02	Dr. Dipanjan Biswas	ASI and IASO
03	Dr. Ajit Agarwal	ASI and IASO
04	Dr. Rashmi Rai	AOMSI, CG-AOMSI, FHNO, FIBSCOMS H&N, IDA,
05	Dr. Dipmalya Chatterjee	APSWB, APSI, ASI, ISRM
06	Dr. Rudra Pratap Singh Thakur	IMSOS, IOA, CGIOA
07	Dr. Noopur Priya	ABSI, IMA

# 2. Key performance Indicator:

one year for surgical treatment at BMC

· Outcome indicators – 30-day mortality; 0.7% for

Re exploration Rate: within accepted range: 0.82%

Percentage of unplanned return to OT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
Percentage of unplanned return to OT with Same Admission	0.00	1.92	0.90	0.83	0.00	1.65	1.28	1.12	0.00	000	0.88	1.27
Number of unplanned returns to OT on Same admission	0	2	1	1	0	2	2	2	0	0	1	2
Number of patients who underwent surgeries in OT (excluding local anesthesia cases)	107	104	111	121	129	121	156	179	149	129	113	158

· SSI rates: within accepted range.

Surgical site infection rate-Overall	7.994	
Surgical site infection rate-Clean Case	2.615	
Surgical site infection rate-Clean - Contaminated	13.578	

# Medical Oncology Head of Department: Dr. Deepak Dabkara



**Team:** Dr. Bhawna Sirohi (Senior Consultant), Dr Siddharth Turkar (Senior Consultant), Dr. Fen Saj (Consultant)

The Medical Oncology department consists of 12 members, including 4 consultants, 1 clinical pharmacist in OPD, 5 resident medical officers, 1 typist, 1 coordinator, and dedicated specialist nurses who offer comprehensive care from diagnosis to treatment.

The department delivers treatment to patients through cutting edge research and technology with medicines like targeted therapy, immunotherapy. For each patient, an individualized plan is developed after discussion in the multidisciplinary tumour board and an integrated approach is followed, collaborating closely with the departments of oncosurgery, radiology, onco pathology, nuclear medicine, and radiation oncology. Additionally, the department routinely sends molecular analysis tests like next generation sequencing to better identify patients who will benefit from the most modern therapeutic options of precision medicine. Complex cases are discussed in virtual Molecular Tumour Boards which involve leading experts from around the world. Clinical trials are currently underway to enroll patients with advanced cancer where the treatment options are less-defined.

The chemo day-care facility at BALCO Medical Centre is the largest in central India with 37 beds, including 4 beds specially reserved for children. A dedicated doctor and 12 chemotherapy-trained nurses are present at the day-care facility to address any kind of emergency. The facility incorporates natural light and is also equipped with specially designed admixing facilities and biosafety cabinets, adhering to international safety standards.

BMC has also entered into an MoU with Tata Memorial Centre, Mumbai, focusing on continuous training and education of Chemo staff. Two nurses from the department received specialized training in CVAD (Central Venous Access Device) care at TMC, Mumbai. They have since become lead nurses in delivering exceptional CVAD access care and have been equipped to train other staff members in CVAD management at BMC, including PICC Line, Hickman Line, and Chemo port.

The department has also introduced art therapy, which has shown positive impact on the psychological well-being of the patients. Furthermore, to support the nutritional needs of patients, platter of high protein diet is introduced consisting items like almonds, dates, threptin biscuits, nutribar and bananas.

Action plans implemented for the service and patient issues.

- i. Consensus Institutional Guidelines developed/ amended
  - a. Triple Negative breast Cancer
  - b. Rectal Cancer
  - c. Metastatic Prostate Cancer
- ii. Service improvement

# Month wise break-up of OPD patients from 01-01-2023 to 31-Dec-2023

Month	Total
January	1830
February	1723
March	1605
April	1474
May	1625
June	1525
July	1762
August	2205
September	2161
October	2189
November	1938
December	1993
TOTAL	22030

#### **Educational activities:**

- a. Role of IV Iron in management of chemotherapy induced anaemia talk for nurses and RMO at BMC
- b. Management of Fever in neutropenic patients
- c. Management and prevention of chemotherapy induced nausea and vomiting
- d. Introduction to medical oncology and chemotherapy talk for nurses, RMOs

- a. Newer chemotherapy protocol format implemented
- b. Suggestions given for better calling system to decrease waiting time
- c. Token system for reducing patient waiting time in OPD

## iii. Challenges

- a. RMO retention
- b. Site specific oncology practice

# Month wise break-up of IPD patients from 01-01-2023 to 31-Dec-2023

Month	Total
January	1074
February	883
March	865
April	745
May	810
June	759
July	889
August	912
September	760
October	856
November	819
December	768
TOTAL	10140

- e. Management of oncological emergencies for RMOs
- f. Advances in Oncology for BMC Consultants

# The department routinely organizes the following:

- · National Molecular Tumour Board every Friday
- BALCO Oncology Webinar (BOW) once every Quarter

# 1. National:

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
01	Dr. Bhawna Sirohi	Updates in Breast Cancer	16 Jan – 17 Jan 2023	Womens Cancer Initiative – Tata Memorial Hospital, Mumbai	Speaker
02	Dr. Bhawna Sirohi	Updates in Gall Bladder Cancer	4 Feb 2023	North-east Oncology Summit, Tezpur	Speaker
03	Dr. Bhawna Sirohi	Doctor's Day conclave: Saluting the Baton Bearers of Nation's Health	30 Jun 2023	The Economic Times, Delhi	Delegate
04	Dr. Bhawna Sirohi	46 <sup>th</sup> Scientific Advisory Committee (SAC) - Meeting Of ICMR-NICED	4 Jul 2023	Indian Council of Medical Research and National Institute of Cholera and Enteric Diseases	Expert Member
05	Dr. Bhawna Sirohi	Expanding Breast Cancer Care for India Women	27 Jul 2023	THE WEEK	Speaker
06	Dr. Bhawna Sirohi	Federation of Asian Radiation Oncology Research Network - Workshop on Clinical Research and Protocol Development	11-12 & 18-19 Aug 2023	Tata Memorial Centre, Mumbai	Moderator
07	Dr. Deepak Dabkara	2 <sup>nd</sup> Annual Madhya Pradesh Cancer Conclave (MPCCON 2023)	19-20 Aug 2023	Cancer research and statistics foundation	Moderator

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
08	Dr. Bhawna Sirohi	Rectal Cancer Management Update	26 - 27 Aug 2023	Rectal Cancer Treatment Outcome Group and BLK-MAX Super Speciality Hospital, New Delhi	Chairperson, Speaker and Panelist
09	Dr. Fen Saj	14 <sup>th</sup> Annual Conference of Indian Society for Study of Lung Cancer, 2023 (NALCCON)	23 - 24 Sep 2023	Pandit Bhagwat Dayal Sharma Post Graduate Institute of Medical Sciences, Rohtak	Speaker
10	Dr. Bhawna Sirohi	Adjuvant Therapy in Gall Bladder Cancer	1 Nov 2023	Asia Pacific Cholangiocarcin oma Conference, Mumbai	Panelist
11	Dr. Deepak Dabkara	6 <sup>th</sup> Asia-Pacific Cholangiocarcinoma Foundation Meeting	01 - 02 Nov 2023	Tata Memorial Hospital, Mumbai, BALCO Medical Centre, Raipur and Cholangiocarcin oma Foundation - US Based Charity	Organiser and Program Director
12	Dr. Bhawna Sirohi	Common Sense in Oncology / Choosing Wisley 2023	01 Nov 2023	Tata Memorial Hospital, Mumbai, BALCO Medical Centre, Naya Raipur, National Cancer Grid and eCancer - a UK Based Charity	Organiser

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
13	Dr. Bhawna Sirohi	Session on ASCO educational symposia/ESMO Precision oncology /ISMPO Publications Workshop/ Molecular MDT	02 - 03 Nov 2023	Indian Cancer Congress, Mumbai	Organiser, Speaker, Moderator, Panelist , Jury
14	Dr. Deepak Dabkara	Precision Management of Prostate Cancer	18 Nov 2023	Kokilaben Hospital, Mumbai	Panelist
15	Dr. Bhawna Sirohi	Treatment of Pancreatic Cancer - How Far Have We Come	09 Dec 2023	Association of Medical Consultants, Mumbai	Speaker

# 1. International:

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
01	Dr. Bhawna Sirohi	The Commonwealth Commission 2023	16 Feb 2023	Partnership with The Lancet oncology, London	Lead Com- missioner
02	Dr. Bhawna Sirohi	2023 ASCO Annual Meeting	02 June - 06 June, 2023	American Society of Clinical Oncology, Chicago	Workshop Invitee
03	Dr. Bhawna Sirohi	Common Sense in Oncology workshop	24 April - 26 April 2023	Queen's University and Kingston Health Sciences Centre, Canada	Speaker, Founding Member

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
04	Dr. Bhawna Sirohi	Cancer Screening - Engaging Community Health Workers in Central India/ Global Cancer Control: Bridging Boundaries	17 Nov 2023	Royal Society of Medicine, Wimpole Street, London	Speaker
05	Dr. Bhawna Sirohi	Optimising Drug Development in Asia Pacific / ESMO Asia Congress 2023	01 Dec 2023	European Society For Medical Oncology, Singapore	Speaker

# 3. Research / Clinical Trials:

Name of Consultant	Research Paper/ Publication
Dr. Bhawna Sirohi	Translating the COVID-19 experience in widening the HPV vaccination campaign for cervical cancer in India
Dr. Bhawna Sirohi	2023 Update of Indian National Association for Study of the Liver Consensus on Management of Intermediate and Advanced Hepatocellular Carcinoma: The Puri III Recommendations
Dr. Bhawna Sirohi	Metastatic well differentiated serotonin-producing pancreatic neuroendocrine tumor with carcinoid heart disease: a case report
Dr. Bhawna Sirohi	Common Sense Oncology: outcomes that matter
Dr. Fen Saj	Efficacy and safety of pomalidomide, bortezomib, and dexamethasone combination chemotherapy for newly diagnosed multiple myeloma
Dr. Fen Saj	BRCA positive breast cancer in Low-Middle Income Countries: Strategies & Challenges (Manuscript under review)
Dr. Fen Saj	Palbociclib in Liposarcoma: Case report (Manuscript prepared)
Dr. Fen Saj	Advanced NSGCT Retrospective data collection (Ongoing)

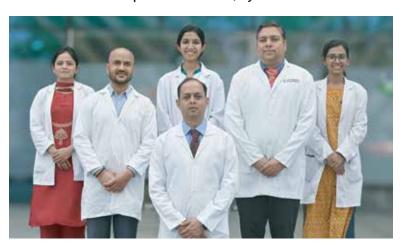
Name of Consultant	Research Paper/ Publication
Dr. Fen Saj	Correlation of Neutrophil: Albumin Prognostic Index with toxicities and outcomes in locally advanced head and neck cancer patients on chemoradiotherapy (Ongoing)

#### **Audit Projects:**

- a. Head and Neck Cancer NACT audit Dr. Siddharth
  Turkar
- b. Breast Cancer Audit Dr Fen Saj



Head of Department: Dr. Jay Kumar Rai



**Team:** Dr Vivek Baghel (Consultant)

The Nuclear Medicine department comprises 8 members consisting of 2 consultants, 2 nuclear medicine physicists, 2 interns, 1 resident medical officer and 1 coordinator

Staging scans are crucial for diagnosing various medical conditions and diseases. Some of the common tests being done in the Nuclear Medicine department include:

#### 1. Renal / DTPA scans:

Used to detect abnormal function or obstruction of the renal blood flow.

#### 2. Thyroid scans:

Conducted to evaluate thyroid function or to better evaluate a thyroid nodule or mass.

#### 3. Bone scans:

Employed to evaluate degenerative and orarthritic changes in the joints, bone diseases, and tumors.

#### 4. Gallium scans:

Utilized for diagnosing active infectious and/or inflammatory diseases, tumors, and abscesses.

#### 5. Heart scans - Stress thallium:

Aimed at identifying abnormal blood flow to the heart, determining the extent of damage to the heart muscle after a heart attack, and measuring heart function.

#### 6. Brain scans:

Investigated to identify problems within the brain and/or in the blood circulation to the brainProdat scan for Parkinson's, FDG brain pet from dementia.

#### 7. Breast scans:

Often used in conjunction with mammograms to locate cancerous tissue in the breast.

#### Services:

The department is currently licensed and equipped to perform all the tests including Stress Thallium / Cardiac scan, SPECT Scan – DaT Scan & HSA Scintigraphy for protein losing Enteropathy, GI Bleed Scintigraphy, PET-CT scan – Ga-68 FAPI- PET-CT scan & Ga-68-exendin Scan. Department has also started PET-CT based radio-therapy planning.

For all the aforementioned functions, well-qualified RSOs ensure that there is no overexposure to

radiation for any staff or patient, while also ensuring proper calibration and safe transfer, storage, and use of sources. The quantity and planning are closely supervised by the physicist and the RMO to ensure the safe transfer of medicine. Additionally, patients are monitored under CCTV surveillance and by clinical support staff after the infusion of medicine. To date, no mortality or adverse reactions induced by medicine have been reported in patients.

## **Statutory Compliance:**

AERB inspection was conducted with no observations, and NABH inspection was conducted with only one observation, which was resolved on the same day of inspection.

	PET-CT	SPECT-CT	HDT+LDT	Total
Therapies Done	(Positron emission tomography -computed	(Single-photon emission computed	(High dose therapy + Low dose therapy )	
	tomography scan)	tomography	Low dose therapy )	
	2175	449	43	2668

	I-131 HDT	Lu-177-PSMA	Lu-177-DOTA	LD	Total
Therapies Done	(High Dose	(Prostate-specific	(Dodecane	(Low dose	
	Therapy)	membrane antigen)	tetraaceticacid)	therapy)	
	33	9	1	1	44

# Education/CMEs/Trainings:

There are continuous trainings undergoing in the department for the staff as well as patients. The patients are educated for all pre-, during-, and post-procedure precautions, dos and don'ts.

The departmental staff are trained in patient care, safe infusion practices, quality indicators, radiation safety, etc.

#### Research:

Departmental Clinical Audits conducted:

Analysis of factors responsible for extravasation of contrast for financial year 2022-2023:

#### Research:

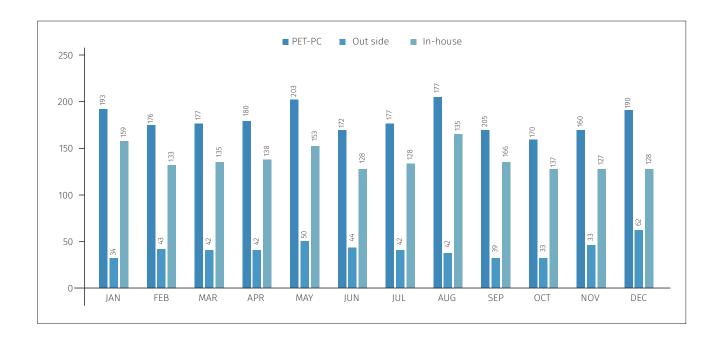
Case Report submitted on PET-CT findings in malignant eccrine spiradeno carcinoma – A rare skin appendageal cancer.

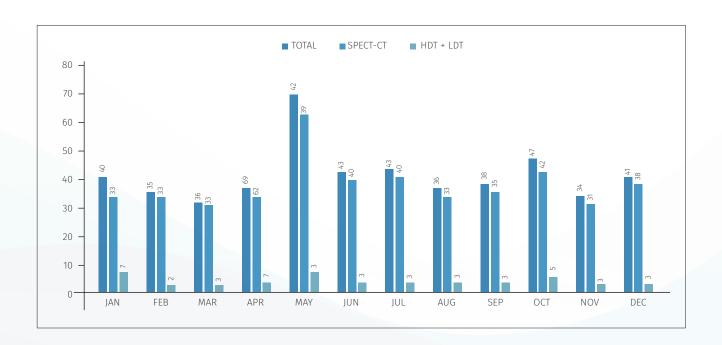
Case Report submitted on unusual SSTR expression in prostate gland in a case of NET ileum.

Case Report submitted on role of Ga-68 PSMA PET-CT in a rare case of Basal cell Carcinoma prostate.

# **Departmental Patients:**

Inpatient admissions: - Elective admissions - 43, Lu-177 PSMA therapy - 9, Lu-177-dota therapy - 1, I-131 high dose - 33





Educational activities: -National: -

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
01	Dr. Jay Kumar Rai	SNMIcon-23 - Jodhpur.	16-19 Nov 2023	AIIMS, Jodhpur	Delegate
02	Dr. Jay Kumar Rai	ANMPICON-23- Faridabad	29 Sep – 1 Oct 2023	Sarvodaya Hospital, Faridabad	Invited guest faculty
03	Dr. Jay Kumar Rai	Radio-pharmaceutical s – AERB sponsor National conference.	27 Jul - 28 Jul 2023	Columbia Institute of Pharmacy	Guest Speaker
04	Dr. Jay Kumar Rai	BMC-Cancer Conclave-2023, Raipur	17 Jun - 18 Jun 2023	BALCO Medical Centre	Panelist
05	Dr. Vivek Baghel	BMC-Cancer Conclave-2023, Raipur	17 Jun - 18 Jun 2023	BALCO Medical Centre	Delegate

# 3. Workshops/ Certificate course:

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
01	Dr. Jay Kumar Rai	Clinical Research Methodology – CRM 2022	Nov 2022	ТМН	Certificate course
02	Dr. Jay Kumar Rai	GCP course, Virtually	13 May 2023	ТМН	Certificate course

#### Departmental Achievements:

Membership

SN	Name of consultants	Designation			
01	Dr. Jay Kumar Rai	Central chapter, Society of Nuclear Medicine, India			
		Southern chapter, Society of Nuclear Medicine, India			
		Society of Nuclear Medicine, India			
		European Association of Nuclear Medicine (EANM)			
02	Dr. Vivek Baghel	Association of Nuclear Medicine physician, India.			
		Central chapter, Society of Nuclear Medicine, India			
		Association of Nuclear Medicine physician, India.			
		Society of Nuclear Medicine, India			





**Team:** Dr. Nikhil Jain (Consultant), Dr. Shreshtha Tiwari (Consultant), Dr. Deepshikha Parakh (Junior Consultant)

The laboratory services at BMC consist of two sub-departments: the Department of Oncopathology and the Department of Microbiology, with 4 consultants, 1 infection control nurse, 16 laboratory technicians, and 3 phlebotomists.

# Department of Onco pathology:

Early and accurate diagnosis is key to effective

treatment of cancer and oncopathology services provide the diagnostic backbone for oncologists. Pathologists at BMC are active members of the Multidisciplinary tumor boards contributing to the diagnosis, predictive and prognostic outcomes and thus have a role in comprehensive patient care. The department also has state-of-the-art equipments and trained and skilled technicians to handle it. A new antibody testing was added in 2023 given the increased volume of outsourcing for this test - PDL-1 (DAKO 22C3). The department also completed successful NABL Desktop surveillance.

Today, Immunohistochemistry (IHC) is imperative for the diagnosis and prognostication of many cancers. The IHC facility in the Department of Pathology is fully automated. From processing about 8 IHC slides daily in 2021, the laboratory now processes over 14 IHC slides a day. The automation has facilitated handling the increased workload, eliminated manual errors, ensured reproducibility, and assured quality.

## Department of Microbiology

Department of Microbiology is manned by an experienced consultant along with trained, skilled, and experienced technical professionals and offers services in the field of diagnostic microbiology, clinical consultation in infectious diseases and integrated antimicrobial stewardship, hospital infection control, and diagnostic stewardship.

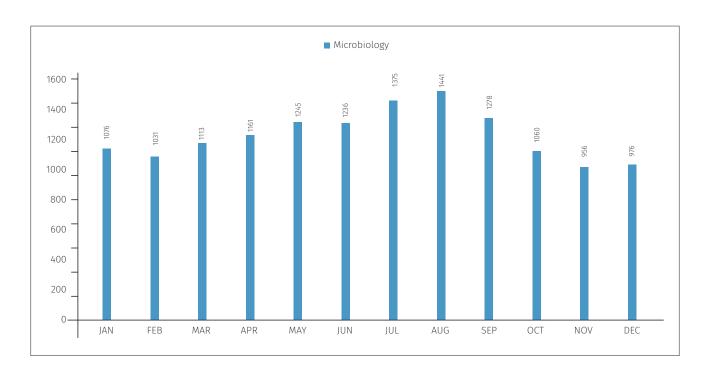
Currently, Molecular diagnostic tests offered by the department are accredited to the National Accreditation Board for Testing and Calibration Laboratories (NABL). The department has been felicitated by MoHFW and NHM for implementation of the best practices for antimicrobial, infection control and diagnostic stewardship program.

#### Services:

The department provides in-house advanced pathology service including Surgical Pathology, Frozen Section, Immunohistochemistry, Cytopathology, Hematopathology, Flow Cytometry, and Clinical Biochemistry. The department's diagnostic microbiology facilities include the following sections: Bacteriology, Serology, Mycology, Mycobacteriology, Virology, Parasitology, and Molecular Microbiology. The department also offers services in Environmental Microbiology (testing of water quality and air quality), and sterility testing of various sterile products.

Immunohistochemistry (IHC) - Different cancer types have different treatment protocols. IHC is used for exact categorization of the tumor (carcinoma /lymphoma/sarcoma), to evaluate prognosis and behavior of disease as well as in guiding the treatment (ER, PR, HER-2 neu, ALK, MSI, etc.). BALCO Medical Centre is the first private hospital in Chhattisgarh to start in-house immunohistochemistry test with approximately 130 antibodies on board.

SN	Scope of service	No of test
1	Biochemistry	236554
2	Hematology	29369
3	Serology	10351
4	Bacteriology	3032
5	Histopathology	3030
6	Clinical Pathology	1819
7	Outsourced	1805
8	Cytopathology	915
9	IHC	721
10	Frozen Section	334
11	Parasitology	257
12	Bone Marrow Aspirate	216
13	Virology	187 (SARSCov2- 169)
14	Mycobacteriology	83
15	Mycology	22



# Education/CMEs/Trainings:

- Moderated 8 sessions of online teaching program for Postgraduates in June and December 2023
- · Department involved in conducting and
- maintaining weekly academic meetings which started in 2023
- Training of technicians as per NABL and NABH requirements.

#### Research:

Departmental Clinical Audits Conducted:

Molecular subtype of Breast Cancer	No (%)
Luminal A	62 (11.4%)
Luminal B Her 2 negative	168 (30.9%)
Luminal B her 2 positive	90 (16.6%)
Her 2 enriched	76 (14%)
Triple Negative breast cancer (Basal Type)	147 (27.1%)
Total	543 (100%)

#### Research:

1) Histopathological prognostic factors in POST NACT Ovarian cancer- A retrospective study (IJPO) by

- Dr. Deepshikha
- 2) Molecular Classification of Breast cancer

### Educational activities:

Dr. Sandeep

- · ISO- 15189- 2022 implementation course
- · Basic course in Bio medical research by ICMR
- Attended Good clinical practices workshop by TMH Mumbai

#### Dr. Deepshikha

- · Flowcytometry certificate course
- · ISO- 15189- 2022 implementation course
- · APCON conference

#### Departmental Achievements:

Membership

SN	N Name of consultants Membership	
1	Dr. Sandeep Ojha	DipRCPath (Histo), MIAC, IAPM
2	Dr. Nikhil Jain	IAPM
3	Dr. Deepshikha Parakh	IAPM

# Action Plans Implemented for the Service and Patient Issues:

- Grossing and reporting formats amended as per recent cap guidelines.
- Service improvement- In House PDL-1/ MSI started.





The Department of Transfusion Medicine & Blood Centre comprises 10 members, including 1 consultant, 1 resident medical officer, 2 nurses, and 6 technicians. The department operates as a state-of-the-art facility, facilitating voluntary blood donation and component therapy, wherein one unit of donated blood is divided into four components to meet the needs of multiple patients.

# The department performs the following tests/procedures:

Transfusion transmissible infections screening (HIV, HBV, HCV, malaria, syphilis), donor & therapeutic

apheresis, plasmapheresis, leukapheresis, erythrocytapheresis, immunohaematological testing, hematopoietic stem cell harvesting and cryopreservation for BMT, Red cell antibody screening and antigen phenotyping, quality control of blood components and serology reagents, leucodepletion of blood components.

The department specializes in providing the highest quality of blood and blood components, achieving a minimal blood transfusion reaction rate. Its services are utilized by numerous hospitals and institutions across the city.

#### Services:

BMC Blood Bank - Recognized as a centre of excellence for all immune-haematological issues in Chhattisgarh. With a commitment to providing the highest quality blood and its components to patients and those in need, the department has consistently achieved 100% results in the External Quality Assurance Scheme (EOAS).

There were a total of 3338 voluntary blood donations in the year 2023, and the issued blood components for patients counted to 6967. To maintain the safety of blood transfusions, the department has conducted 17,795 TTI screenings and 304 leucodepletions. Also, there were 44 Therapeutic apheresis procedures conducted, 21 donor apheresis procedures, and 2614 FFP units sent for fractionation. It was accompanied by 11326 Immunohematology tests and 24 Allogenic & Autologous stem cell harvests for BMT. The department is dedicatedly working towards the goal of nationwide decrease in thalassemia & sickle cell patients by active screening, awareness programs & prompt OPDs at Kawardha and Rajim.

#### Statutory:

Successfully conducted the license renewal process and obtained the license with extra component facilities till 2028.

## Recognition/Award:

Awarded Chhattisgarh State Level Recognition Certificate by NACO in the field of Blood Transfusion on the occasion of World Blood Donors Day (14<sup>th</sup> June 2023)

## Education/CMEs/Trainings:

- The department regularly conducts academic classes and on-the-job training for technicians and nursing staff.
- · Interdepartmental training sessions are organized

for clinical staff to familiarize them with blood transfusion-related requirements, vital signs, and how to handle minor or major reactions.

- 5-day training course on 'Therapeutic Apheresis Procedures' was developed and conducted specifically for transfusion medicine doctors and technicians
- · Continuing Medical Education (CME) event on Bone Marrow Transplantation (BMT-Update 2023) was held in Raipur, Chhattisgarh, on 11<sup>th</sup> February 2023, with the aim of disseminating knowledge nationwide through expert speakers.

#### Research:

Departmental Clinical Audits conducted:

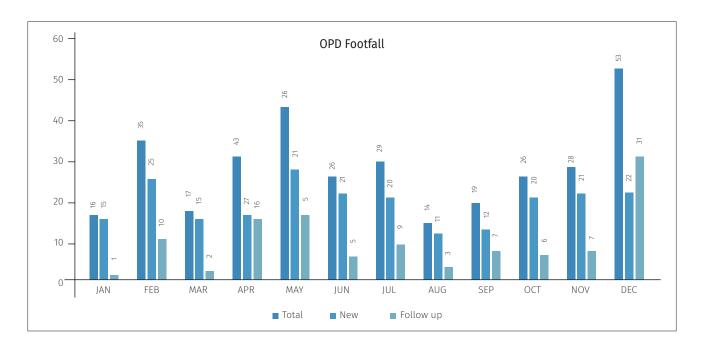
- 1. Efficacy of Platelet concentrate transfusion in Acute Leukemia Patients.
- 2. Reduction in sickle percentage, post erythrocytapheresis in sickle cell disease patients: a retrospective analysis

#### Key findings:

- Mean value of pre and post procedure sickling % (HbSS) was 67.3 and 26 respectively.
- There was a reduction of platelet counts noted in post procedure parameter by approximately 45000/microlit.

### **Departmental Patients:**

A total of 337 patients have been treated in the OPD, comprising 225 new patients and 112 follow-up patients.



# Educational activities:

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
01	Dr. Neelesh Jain	Thalassemia (prevention & management strategies)	8 May 2023	Kalinga University, Raipur	Invited guest faculty
02	Dr. Neelesh Jain	Clinical Research - Workshop on Clinical Research & Protocol Development	18-19 Aug 2023	TMH, Mumbai (Virtually)	Delegate
03	Dr. Neelesh Jain	State level conference on Acute Leukemia, Raipur	2 Sep 2023	AIIMS Raipur	Chairperson
04	Dr. Neelesh Jain	12 <sup>th</sup> National Hemostasis Update	19-20 Dec 2023	Indian Association for Hemophilia & allied disorders- IAHAD, Bangalore	Invited delegate

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
05	Dr. Neelesh Jain	CME on Bone marrow Transplantation, BMT Update - 2023, Raipur	11 Feb 2023	BALCO Medical Centre, Raipur	Speaker
06	Dr. Neelesh Jain	BMC Chhattisgarh Cancer Conclave- 2023, Raipur	17-18 June 2023	BALCO Medical Centre, Raipur	Speaker

#### International

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
01	Dr. Neelesh Jain	Erythrocytapheresis in Sickle cell anemia crisis - International Summit on Hematology & Blood disorder	27-28 April - 2023.	Magnus Gap (Virtual)	Invite guest faculty

## Departmental Achievements:

#### **Honors and Awards**

- Awarded Chhattisgarh State Level Recognition Certificate by NACO in the field of Blood Transfusion on World Blood Donors Day
- Awarded ASH-VTP Fellowship by American Society of Hematology to visit John Hopkins University, Baltimore, Maryland, USA.
- Received ACORD Travel fellowship by the Medical Oncology Group of Australia (MOGA) and attended a 7-day workshop on clinical oncology research, in Sydney, Australia.
- Received Dr Harold Gunson Fellowship award for paper presentation in 24th Regional ISBT (International society of blood transfusion) Congress in Kuala Lumpur, Malaysia.

# Membership of Editorial Boards:

- Medical Journal Armed Forces India (MJAFI)
   [Journal of Indian Army Medical Corps. published by Elsevier].
- Indian Journal of Hematology and Blood Transfusion (IJHBT) [An official journal of the Indian Society of Hematology and Blood Transfusion]

#### Society Membership:

- Indian Society of Hematology & Blood Transfusion (ISHBT)
- Asian Association of Transfusion Medicine (AATM)
- Indian Society of Transfusion Medicine (ISTM)

#### Books/Chapters in Academic Texts:

· Chapter - Corona-An Overview has been published in the book "Modern Concepts of Immunology."

## Anaesthesia & Critical Care

Head of Department: Dr. Alok Kumar Swain



Team: Dr. Santosh Tharwani (Senior Consultant), Dr. Subhendu Mishra (Senior Consultant), Dr. Shilpa Meshram (Senior Consultant), Dr. Devendra Kumar (Consultant)

The department of anaesthesia & critical care comprises of 4 senior consultants, 1 consultant and 5 resident medical officers. It ensures prevention and mitigation of pain and distress using various anaesthetic agents, as well as the monitoring and maintenance of a patient's vital functions throughout the perioperative period. The department also facilitates prompt patient examination and their vital/treatment in the emergency department. The team is highly trained in ensuring safe infusion & injection practices with patient early warning signs and their management. The department also provides Hypotensive Anesthesia to surgical patients, which reduces the blood loss and need for blood transfusion during surgery to minimum.

#### Services:

All clinical staff in the department play a crucial role in the hospital by understanding signs and symptoms, analyzing vitals, and treating patients during the critical hour. The department offers pre-hospital emergency medicine, operates intensive care units, facilitates the transportation of critically ill patients between facilities, manages hospice and

palliative care units, and conducts prehabilitation programs to optimize patients for surgery.

## Education/CMEs/Trainings:

The department regularly conducts academic classes and on-the-job training for technicians and nursing staff, along with inter-departmental training for clinical staff to understand the basics of early warning signs, critical values, anesthesia-related side effects, pain management, and pain analysis, among others.

Around 520 hospital staff have been rendered BLS (Basic Life Support) training by the department. It is crucial for lifesaving training and of immense help during emergencies.

# Service Improvement Projects:

- 1. There has been adoption of a bell system inside the OT complex, which immediately informs us about any emergency arising in any OT. This enables to reach the area immediately for help without any time delay.
- 2. Rapid Response Team has been formed, which has reduced the number of Code Blue events in the hospital and with the timely detection by the team, the outcomes of Code Blue Events have also improved.

#### Research:

## Departmental Clinical Audits conducted:

 Assessment of knowledge level and its relevance in terms of CPR in medical personnel of tertiary level cancer hospital, BALCO Medical Centre, Raipur, CG.

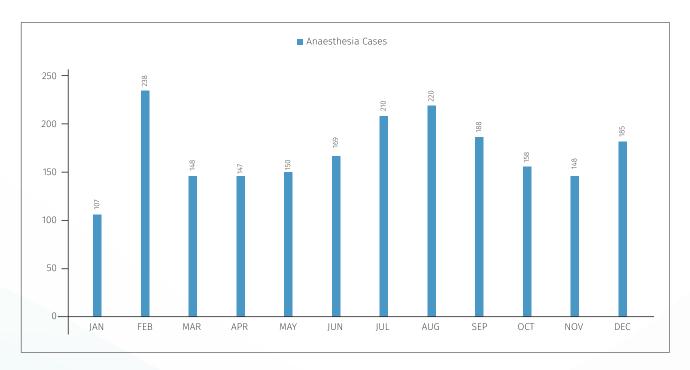
The conclusion of the project showed that healthcare staff who had undergone training recently had shown more positive results. There was a need for regular, time-bound training as regards the learning methodology used in CPR courses.

#### Research:

1. Re-evaluating the level of evidence in research: Incorporating trial sequential analysis and fragility index; Nitinkumar B. Borkar; Abhijit Nair; Shilpa Meshram; Tridip D. Baruah; Indian Journal of Anesthesia 68(4):p 403-405, April 2024. | DOI: 10.4103/ija.ija\_35\_24

#### **Departmental Patients:**

Anaesthesia Cases for the year 2023:



#### Educational activities:

#### 4. National:

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
01	Dr. Alok Kumar Swain	CGISACON 2023 -Annual Conference of Indian Society of Anaesthesiology	Sep 2023	Indian Society of Anaesthesiology	Chair Person and Delegate

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
02	D.r Santosh Tharwani	Antimicrobial Conclave 2023	May 2023	Sri Balaji Institute of Medical Sciences	Delegate
03	Dr. Shilpa Meshram	CGISACON 2023 - Annual Conference of Indian Society of Anaesthesiology,	Sep 2023	Indian Society of Anaesthesiology	Delegate
04	Dr. Devendra Kumar	CGISACON 2023 - Annual Conference of Indian Society of Anaesthesiology,	Sep 2023	Indian Society of Anaesthesiology Department of	Delegate
05	Dr. Shilpa Meshram	Obstetric Anaesthesia Update.	Dec 2023	Anaesthesia, Critical Care and Pain, Pt JNM Medical college, Raipur	Delegate

# Departmental Achievements:

# 6. Membership

SN	Name of consultants	Membership	Department
01	Dr. Alok Kumar Swain	Indian Society Of Anaesthesiology, Indian Society Of Critical Care Medicine,	Anaesthesia & Critical care
		Indian Medical Association	
02	Dr. Subhendu Mishra	Indian Society Of Critical Care Medicine	Anaesthesia & Critical care
03	Dr. Santosh Tharwani	Indian Society Of Anaesthesiology	Anaesthesia & Critical care
04	Dr. Shilpa Meshram	Indian Society Of Anaesthesiology	Anaesthesia & Critical care
05	Dr. Devendra Kumar	Indian Society Of Anaesthesiology	Anaesthesia & Critical care

# 7. Key performance Indicators

• Anaesthesia related adverse events

Zero incidence reported for the year 2023 including anaesthesia procedures done in OT and

outside OT (Radiology, Emergency Room)

• Ventilator associated events Zero VAE reported.

## Infection Control

## Dr Shreshtha Tiwari, Brother Amosh Kashyap

The Infection Control Department mainly focuses on minimizing the risk of spreading infections, as cancer patients are vulnerable due immunocompromised conditions. The team assists in prevention, management, and promotion of patient safety by reducing the risk of acquiring and transmitting infections, as well as controlling communicable diseases. Α comprehensive, coordinated program including antibiotic stewardship, quality internal audits, hand hygiene audits, and research helps in continuous review of nosocomial infections.

#### Services:

- Performs comprehensive surveillance for healthcare-associated infections and epidemiologically significant organisms.
- Identifies and investigates clusters or outbreaks of infection.
- Analyzes procedure and device-associated infections.
- Creates evidence-based interventions to prevent healthcare-associated infections.
- Evaluates methods and technologies to reduce transmission of pathogens within the institution.
- Creates, maintains, and updates appropriate infection control policies.
- Develops and maintains educational programs regarding infection control for all hospital employees, physicians, and trainees.
- Provides consultation to healthcare providers in the assessment and management of patients and employees with communicable diseases.
- Provides input for the content and scope of occupational health and safety programs related to infection control and prevention.
- · Advises senior leadership on issues related to the

- reduction of infection risks and regulatory requirements.
- Administers ongoing programs and initiatives for continuous quality assessment, quality improvement, and infection risk reduction (e.g., hand hygiene promotion and monitoring).

## Education/CMEs/Trainings:

The department regularly conducts academic classes and on-the-job training at the hospital for various staff members, including housekeeping, support staff, nursing, technicians, resident medical officers (RMOs), and doctors. These sessions aim to enhance understanding of hygiene-related requirements, as well as identification and management of minor or major infections.

## Guidelines Developed / Amended:

- 1. Hospital infection control guidelines
- 2. Hospital antimicrobial stewardship
- 3. Hospital Kitchen, Laundry, and housekeeping guidelines

# Service Improvement:

- 1. Clinical pathway for Febrile neutropenia initiated
- 2. Monitoring of restricted antibiotics initiated
- 3. Critical call alert reporting system improved

#### Research:

# Departmental Clinical Audits Conducted:

1. Clinical audit of critical call alert reporting of positive blood cultures:

Outcome: Less than 30% compliance was observed in critical call alert reporting practices. To improve practice, the practice of single point contact for intimating critical call alerts and stamp for critical call alert initiated.

#### Research:

P. No	Title	PI	Funding (Investigator initiated /Industry)	Status (Ongoing / closed)	Basic / Clinical Research
01	Surveillance of Multidrug-Resistant, Extensively Drug-Resistant and Pan Drug Resistant Organisms for the Healthcare Facilities Using Automated Antimicrobial Susceptibility System-A Large Scale National Multi-centric Study.	Dr. Shrestha Tiwari	NA	Ongoing	Basic research
02	Expansion of Antimicrobial Stewardship Program (AMSP) & Infection Prevention & Control Program (IPC) of ICMR in Secondary Care Hospitals	Dr. Shrestha Tiwari	NA	Ongoing	Basic research

#### **Educational Activities:**

Workshops/ Certificate Course:

- Part of ICMR-AMRSN for antibiotic stewardship practices and antibiotic resistance surveillance
- Part of National Multi-centric study of MDR, PDR and XDR organisms for Health care facilities
- · Part of the National Hospital acquired infection

surveillance network.

- Cleared the "National certifying examination for infection control professionals" by CAHO
- Attended ICMR-AMRSN workshop on "Strengthening Diagnostic stewardship in Secondary care Hospitals" Jan 2023

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
01	Dr. Shreshtha Tiwari	CAMM conference- Recent Updates in Clinical Microbiology	Oct 2023	CGMICRON with SIMS Bilaspur	Faculty

## **Departmental Achievements:**

#### 1. Indicators

Hospital acquired infection rates maintained as per NABH standards and benchmark set by the hospital. Needle stick injury rates were maintained.

Surgical antibiotic prophylaxis adherence rates monitored and maintained at an average of 98%.

# 2. Publications pertaining to research activities.

Karuna T, Gupta A, Vyas A, et al. (April 18, 2023) Changing Trends in Antimicrobial Susceptibility Patterns of Bloodstream Infection (BSI) in Secondary Care Hospitals of India. Cureus 15(4): e37800. DOI 10.7759/cureus.37800

# Radiology

## Head of Department: Dr. Shishir Agrawal



**Team:** Dr. Gaurav Lade (Junior Consultant)

The Department of Radiology comprises 2 consultants, 1 nursing staff, and 6 technicians serving cancerous and noncancerous patients around the clock. The department is fully equipped with advanced diagnostic technology and a dedicated PACS & RIS system for quality reporting with precise and timely completion of all emergency and regular cases.

Along with establishing the diagnostic facility at the hospital, there is also availability of a Mammography van for early and prompt screening in rural and urban areas.

Radiation safety initiatives were initiated following Atomic Energy Regulatory Board (AERB) guidelines to improve the radiation safety culture of the department. During the AERB audit, as well as the NABH audit, zero audit observations were found, and there have been no radiation safety incidents in the last 6 years.

#### Services:

The Radiology team consists of 2 consultants and 6 technicians. With state-of-the-art infrastructure, the department is equipped with MRI, CT, X-ray, Mammography, and USG. Additionally, the department has added a new modality of ultrasound bone densitometer and new services for USG-guided

fiducial markers & wire localization for breast lesions to enhance early screening, diagnosis, & treatment of cancer patients.

To reach patients in rural areas and far-off urban areas where medical facilities are not available, a mammography van equipped with thermal scanning, a mammography machine, PAP smear, and an inspection area was inaugurated in June 2023.

The team has performed a total of 13,641 radiological diagnostic studies and procedures for the year 2023, including 262 mammography scans conducted through the mammography van. NABH audit, based on the 5th edition, was completed with no departmental observations.

Additionally, the team has initiated patient education materials for TRUS guided biopsy & CT guided biopsy for better understanding of patients about the indications, precautions & procedure.

Statutory: - AERB Licenses & PCPNDT certificate is renewed for the next 5 years.

# Education/CMEs/Trainings:

- 1) Attended PCPNDT training workshop in the CMO office on November 23
- 2) Part of the 14<sup>th</sup> state CG IRIA conference
- 3) Attended Breast imaging CME & hands-on interventional workshop in JLN Hospital Bhilai

#### Research:

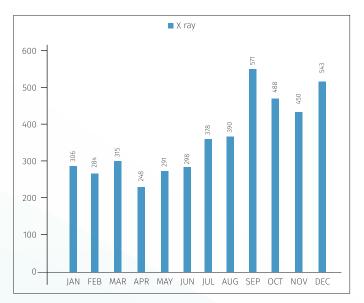
- 1. Prevalence of popliteal artery branching variations —An institutional based CT Angiography study & its implications in harvest of free fibula flaps.
- 2. Preoperative contrast-enhanced neck CT images of patients with histologically proven metastatic nodes (Retrospective).

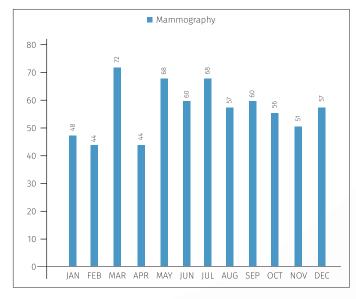
# Departmental Clinical Audit Conducted:

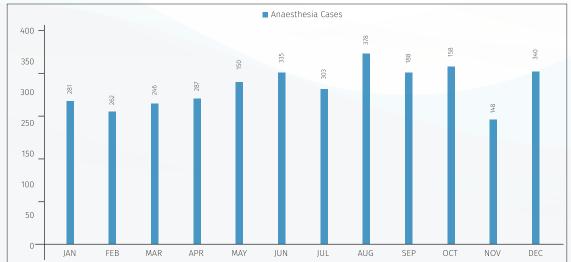
1. Radio-pathological Correlation in Head and Neck Cancer with special mention of N3b status in Radiology.

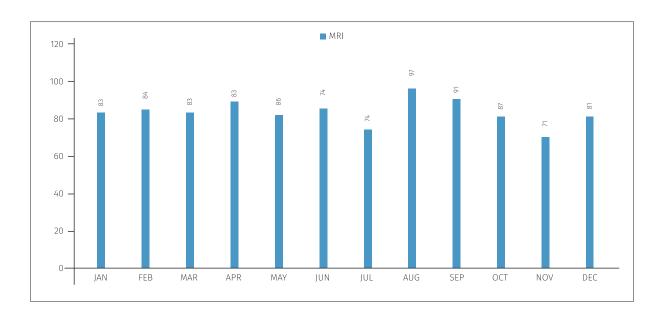
# **Departmental Patients:**

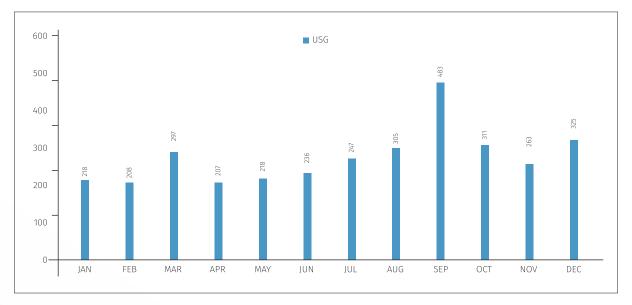
X-rays	4562
CT Scans	3783
USG procedures	3345
MRI	1004
Mammography	685
Camp Procedures	262
Total	13641













# Haemato-Oncology

## Head of Department: Dr Dibyendu De



**Team:** Dr. Neelesh Jain (Senior Consultant), Dr. Ruchi Aujla (Senior Consultant)

The Department of Haematology comprises 14 members consisting 3 consultants, 8 nurses, 1 typist, and 2 resident medical officers. The department is highly specialized in diagnosing and treating blood-related disorders such as anaemia, including thalassemia, sickle cell anaemia, and aplastic anaemia. It also deals with bleeding disorders, clotting disorders, including haemophilia, and blood cancers like acute and chronic leukaemia, lymphoma, myeloma, and myeloproliferative neoplasms. The department performs chemotherapy. immunotherapy, targeted therapy, and bone marrow transplants for patients with newly diagnosed as well as complex, multiple-relapsed blood cancers. The department has organized an Academic CME titled "BMT Update 2023" with eminent national faculty and has also participated in 24 national and international conferences

The department has been registered as the only institute from Chhattisgarh for the Stem Cell Transplant Centre in the Indian Society of Bone Marrow Transplant (ISBMT) and the Eastern India Blood Marrow, and Cellular Therapy Registry (EIBMCT) in June 2023. The department started with 2 beds of

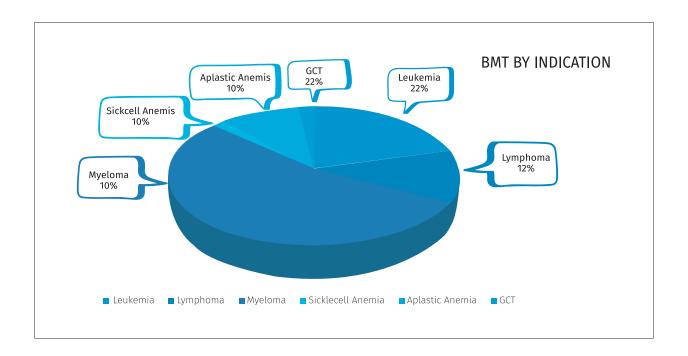
Bone Marrow Transplant unit in 2021 and grew to a fully equipped 5-bedded Bone Marrow Transplant unit by 2024.

The department regularly organizes CMEs for physicians, RMOs, and nursing faculties, and arranges awareness programs on Sickle Cell Disease for patients and their caregivers.

#### Services:

The Department of Haematology attended to over 5000 patients in 2023, with more than 1000 admissions, majority of whom received salvage immunotherapy and targeted therapy. 2023 saw a total of 21 bone marrow transplants, 11 of which were allogeneic transplants, marking the highest number in a year to date. The increasing number of patients referred for bone marrow transplants from hospitals outside the state necessitated an expansion of the BMT unit.

The department has successfully performed a Double Haplo Transplant in a paediatric patient with Acute Lymphoblastic Leukaemia. Additionally, it has performed successful transplants for two patients with Sickle Cell Anaemia.



The Department of Haematology has increased its activity in both adult and pediatric hematology, benign hematology, and Bone Marrow Transplant. Additionally, the team conducts three regular outreach OPDs at Kawardha and Rajim and participates in Sickle Cell Anemia screening camps at Jashpur.

## Education/CMEs/Trainings:

# a. CME/Training course organized by members:

BMT UPDATE 2023: An annual update on bone marrow transplant. The one-day meeting was attended by Prof. Naveen Khatri, Head of the Stem Cell Transplant Unit at ACTREC Mumbai, Dr. Suvro Sankha Dutta, Head of the Department of Transfusion Medicine at TMC Kolkata, and Dr. Sachin Jain, Head of Cytopathology at FMRI Gurgaon.

#### b. Teaching Activities:

- · Nursing Training: Indwelling Catheter Care
- RMO Teaching: by Dr Valmik Chakradhari: Blood Component Therapy

- · RMO Teaching: Neutropenic Sepsis
- · RMO Training: Multiple Myeloma
- · Nursing Class: Tumor Lysis management
- · Physician Academic Program: ABC of CBC

#### c. Service Improvement Protocols:

- All the chemotherapy protocols were amended, and newer salvage protocol and immunotherapy protocols were introduced.
- · Protocol for Haplo identical transplant introduced.
- Surveillance culture for all BMT patients introduced after review of audit report.

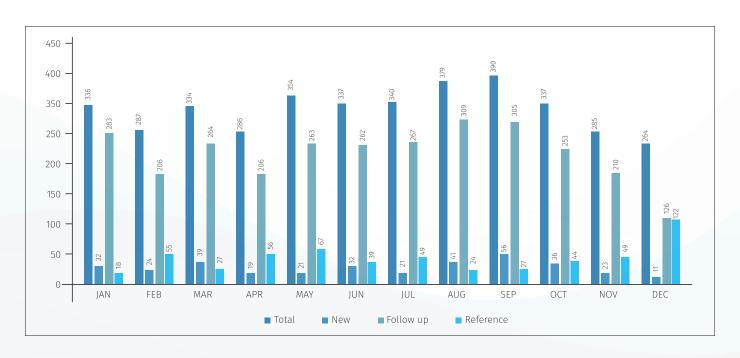
#### Research:

- 1. Departmental Clinical Audits Conducted:
- An Audit Of Treatment Outcome of Acute Myeloid Leukemia Patients
- Surveillance Culture in Bone Marrow Transplant Recipients and Its Predictive Value in Infection Control in BMT.

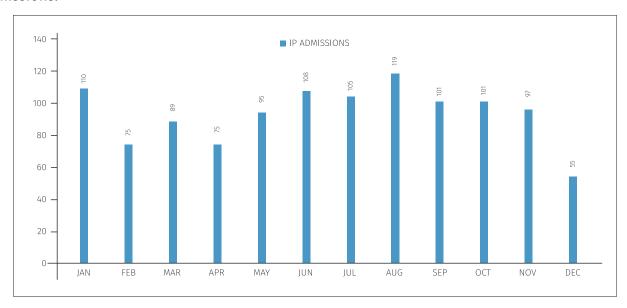
P. No	Title	PI	Funding (Investigator initiated /Industry)	Status (Ongoing / closed)	No of pt to be recruited	Basic / Clinical Research
01	"Clinical role of novel mutations in BCR-ABL1 towards therapy switch in imatinib resistant chronic myeloid leukemia".	Somsubhra Nath, Dr. Dibyendu De	Investigator initiated	On going	5	Basic research
02	Comparison of efficacy and safety of Dasatinib 50 mg once daily vs Imatinib 400 mg once daily in patients with chronic phase (CP) chronic myeloid leukemia (CML)	Dr .Dibyendu De	Investigator initiated	Closed	30	clinical

# Departmental Patients:

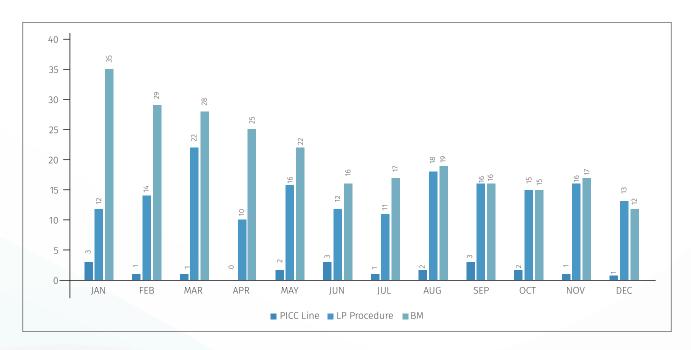
# OPD Patients:



# **IPD Admissions:**



# Procedures:



# Educational activities:

National:

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
01	Dr. Dibyendu De	Inotuzumab In Relpased Leukemia, Manthan Meeting	20 Jan 2023	Pfizer Oncology	Faculty/ speaker

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
02	Dr. Dibyendu De	Journey of Stem cell transplant At BALCO Medical Centre BMT UPDATE 2023	11 Feb 2023	BALCO Medical Centre	Faculty/ Organizer / Speaker
03	Dr. Dibyendu De	Haemophilia gene therapy: Optimisms and questions, BESHCON KOLKATA	18 Feb 2023	BSH	Faculty/ speaker
04	Dr. Dibyendu De	CML: Newer Avenues for Complete Cure, IMACGCON, BHILAI	18 Mar 2023	IMA CG	Faculty/ speaker
05	Dr. Dibyendu De	TTP: Diagnosis & Treatment, HEMAT-TRANSCON 2023 KOLKATA	22 Apr 2023	BSH	Faculty/ speaker
06	Dr. Dibyendu De	Chhattisgarh Cancer Conclave 2023	16 Jun - 17 Jun 2023	ВМС	Delegate
07	Dr. Dibyendu De	ADVANCED GCP COURSE	13 May 2023	DAE CTC & TMH	Delegate
08	Dr. Dibyendu De	Panel discussion –Eltrombopag in Aplastic Anemia and ITP	23 Jul 2023	ZYDUS ONCOLOGY	Faculty / Panelist
09	Dr. Dibyendu De	Neonatal Thrombocytopenia – a multi-disciplinary approach: Durgapur	27 May 2023	Neonatology Society Of Bengal	Faculty / Panelist
10	Dr. Dibyendu De	Panel Discussion, Multiple Myeloma	1 July 2023	CIIH	Faculty / Panelist

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
11	Dr. Dibyendu De	Sickle Cell Anaemia : An Update Central India haematology Summit, Indore	7 Jul 2023	CIIH	Faculty/ speaker
12	Dr. Dibyendu De	Targeted therapy in HD Bridging the gap meeting	13 Jul 2023	Takeda	Faculty/ Panelist
13	Dr. Dibyendu De	Journey of Stem cell transplant At Balco Medical Centre: Eastern India Blood Marrow and Cellular therapy Meet Kolkata	15 Jul 2023	EHG	Faculty/ speaker
14	Dr. Dibyendu De	Blood component transfusion in BMT Eastern India Blood Marrow and Cellular therapy Meet Kolkata	15 Jul 2023	EHG	Faculty / Panelist
15	Dr. Dibyendu De	Updaes on R/R/ acute lymphoblastic leukemia Pfizer Heme Summit	22 Jul 2023	Pfizer Oncology	Faculty/ speaker
16	Dr. Dibyendu De	Sickle Cell disease , DURG	29 Jul 2023	ВМС	Faculty/ Organizer/ Speaker
17	Dr. Dibyendu De	one marrow transplant in Leukmeia State level conference on leukemia	2 Sep 2023	AIIMS Raipur	Faculty / speaker

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
18	Dr. Dibyendu De	Shingles Prevention For IC Patients	27 Oct 2023	BMC, Raipur	Faculty/ Organizer / Speaker
19	Dr. Dibyendu De	BApproach to Diagnosis & Management of DIC in Pregnancy and Puerperium Annual conference of Indian Society of hematology and Blood Transfusion, Bhubaneshwar,	2 Nov 2023	ISHBT	Faculty / speaker
20	Dr. Dibyendu De	Management of Sickle Cell Disease in 2023 a simplified approach CLRNET CME	9 Oct 2023	CLRNET	Faculty/ Organizer/
21	Dr. Dibyendu De	Bone marrow assessment : when and why Indian Academy of Clinical Medicine Annual Conference, Agartala	25 Nov 2023	IACM	Speaker Faculty/
22	Dr. Dibyendu De	Moving forward in frontline HD Hodgkin Lymphoma Update	15 Dec 2023	Takeda	speaker Faculty/ speaker
23	Dr. Dibyendu De	Management of Newly Diagnosed Transplant Ineligible and Transplant eligible Patients of Multiple Myeloma Myeloma Update	19 Dec 2023	CIIH	Faculty / speaker

# International

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
01	Dr. Dibyendu De	5 <sup>th</sup> Emirates Paediatric Haematology & Oncology Conference" virtual conference	22 Jan 2023	EPHOC (Virtual)	Delegate

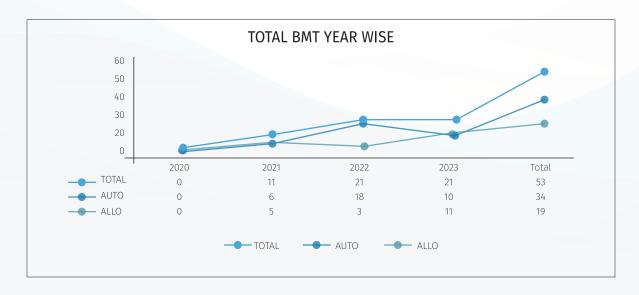
# Departmental Achievements:

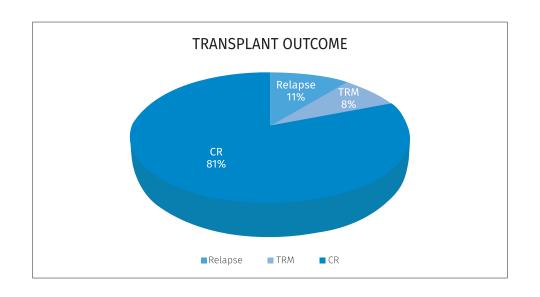
Membership

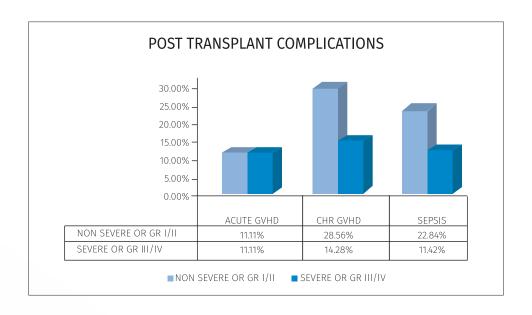
S. No	Name of Consultant	Membership	Department
01	Dr. Dibyendu De	Bengal Society of Haematology (BSH), Eastern Haematology Group (EHG), Indian Society of Hematology and Blood Transfusion (ISHBT), Indian Myeloma Group (IMaGe), Hemophilia Federation of India (HFI), Indian Society of Bone Marrow Transplant (ISBMT), Fellow of the Indian Association of Clinical Medicine (FIACM)	Haemato - Oncology

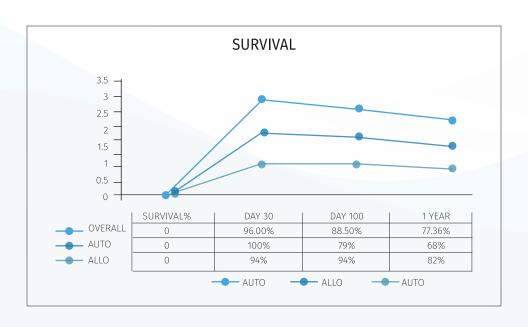
- Membership of Editorial Boards of Reputed Publications
- a. Guest editor in Journal of Haematology and Allied Sciences (JHAS)

# 8. Key performance Indicators









#### 9. Publications:

a. Positive direct antiglobulin tests in cancer patients on immune checkpoint inhibitors: A case series from India, (Datta SS, De D. Positive direct antiglobulin tests in cancer patients on immune checkpoint inhibitors: A case series from India. Transfus Clin Biol. 2023 Aug;30(3):341-344. doi: 10.1016/j.tracli.2023.03.003. Epub 2023 Mar 16. PMID: 36931491.)

b. Very low-dose prophylaxis in children with hemophilia A (De, Dibyendu; Datta, Suvro Sankha1,. Very low-dose prophylaxis in children with hemophilia A. Asian Journal of Transfusion Science ():, May 11, 2023. | DOI: 10.4103/ajts.ajts\_159\_22)

## 10. Books/Chapters in academic texts.

a. Dr Dibyendu De, 2023: Bone Marrow Assessment: When and Why. In Dr. H. S. Pathak Editor. Clinical Medicine Update 2023 Chapter 10 IACM p 96-101.

#### 11. Honors and Awards:

- a. Fellowship in Indian Academy of Clinical Medicine
- b. Preceptor ship on Acute Lymphoblastic Leukaemia, by Vall Hebron University, Barcelona (Spain)





**Team:** Dr. Jagriti Sahu (Resident Medical Officer)

The paediatric oncology department collaborates closely with departments such as Blood Transfusion, Medical Oncology, Haemato-oncology, and Cuddles Foundation. Its primary focus is on addressing cancers affecting infants, children, and teens. The specialized team in Paediatric Oncology is dedicated to providing comprehensive care for children, ensuring their comfort and managing any treatment-related complications that may arise. Compared to adults, cancer treatment tends to be more effective in children, as they often lack the co-morbidities that some adults have. Consequently,

their bodies can tolerate stronger treatments more effectively.

The department is dedicatedly working on the early diagnosis, treatment, and prevention of cancer in children. A multidisciplinary team is in place to address pediatric cancer, consisting of pediatric oncologists, hemato-oncologists, and transfusion medicine specialists. There is a high emphasis on monitoring and supporting the nutrition of children with the assistance of the Cuddles Foundation and the hospital's team of dieticians during their ongoing long-term and often complicated treatment.

#### Services:

The department is well-equipped and fully prepared to treat all types of cancer tumors, including Leukaemia, Lymphoma, Brain tumors, and other solid organ tumors such as Neuroblastoma, Wilms tumor, Soft Tissue Sarcoma, Rhabdomyosarcoma, Retinoblastoma, and Bone cancers. In the year 2023, the department conducted a total of 807 OPDs, out of which 165 were new patients. The total number of oncology patients seen was 682, out of which 334 were admitted as inpatients.

## Education/CMEs/Trainings:

The department regularly conducts audits on quality improvement projects and holds academic classes to train RMOs, nursing staff, and other clinical personnel in understanding Paediatric emergencies, Paediatric early warning scores (PEWS), Paediatric drug dosing, and establishing the importance and methods of supporting nutrition in children.

In efforts to enhance patient experience and service provision, guidelines have been developed covering a range of pediatric procedures, routine nursing care, and management protocols for chemotherapy administration and ongoing pediatric patient care.

## CME / Childhood Cancer Awareness Programmes:

The department organizes Continuing Medical Education (CME) sessions and awareness camps aimed at promoting early recognition of signs and symptoms of childhood cancer. Collaborating with the Indian Academy of Pediatrics (IAP), CME sessions were conducted in various locations including Raipur,

Raigarh, Durg, and Bhilai. Additionally, on International Childhood Cancer Day, observed on February 15th, awareness activities were conducted via live sessions on social media platforms and INH news to disseminate information about childhood cancer.

#### Social Events:

The department organized its annual event, SMILE, in December 2023, dedicated to young cancer warriors. The event celebrated their courage and victory, coinciding with the joy of Christmas festivities.

#### Research:

Departmental Clinical Audits Conducted:

Topic: - To ensure staff compliance with the policy, children attending the hospital with febrile neutropenia should receive antibiotics within an hour of arrival, adhering to national and international standards.

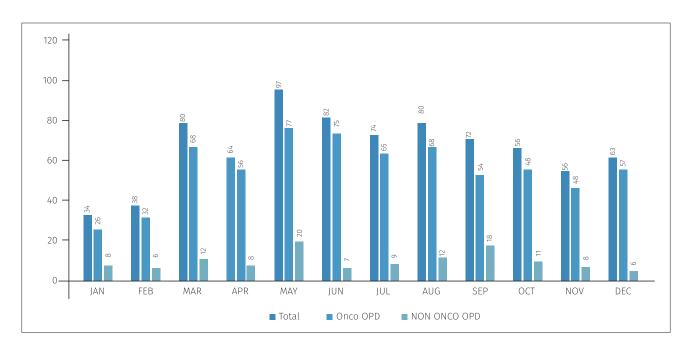
Conclusion – 100% compliance rate was documented after relocating the site for administering the first dose of antibiotics and enforcing effective communication and handover policies.

Outcome indicators – 30 day mortality:

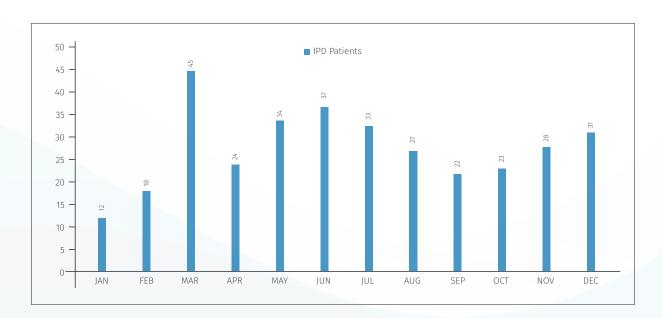
Total 5 mortality (3 high risk Haemato lymphoid cases & 2 solid tumour cases respectively) over the year Process indicator — Percentage compliance with evidence based clinical guidelines: 100 % (excluding technical / logistic difficulties)

### **Departmental Patients:**

The department has treated 807 patients in OPD out of which 165 were new patients and 682 were follow-up patients:



### Total IPD Patients: 334



### Educational activities:

SN	Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	Participation as
01	Dr. Ruchi Aujla	Solid tumor Workshop	April 2023	TMH Mumbai	Delegate
02	Dr. Ruchi Aujla	Pediatric Oncology "– What a pediatrician should Know IAP Women's Wing conference	May 2023	IAP	Speaker
03	Dr. Ruchi Aujla	How I treat Paediatric AML State level conference on Acute leukemia	Sep 2023	AIIMS	Speaker
04	Dr. Ruchi Aujla	Hematological Malignancies Webinar	Oct 2023	Mumbai Hematology Group	Panelist
05	Dr. Ruchi Aujla	Annual Oncology Seminar	Oct 2023	SIOP 23	Delegate

# Memberships:

SN	Name of Consultant	Membership	Department
01	Dr. Ruchi Aujla	Indian Academy of Paediatrics ( IAP ), IAP ( PHO ) – Paediatric Haemato Oncology Group, Childhood Cancer Leukemia/ oncology Group – CCLG UK, Society of International paediatric Oncology ( Europe ) – SIOP E	Paediatric Oncology

# Patient Support Group:

### Indra Dhanush:

Parents Support Group for supporting parents and children with cancer

# Pain and Palliative Care

Lead: Dr. Nilima Das (Consultant)



The Pain and Palliative department at BMC is dedicated to improving the quality of life for individuals facing chronic pain. The department offers comprehensive diagnostic support for various chronic pain conditions. Collaborating closely with the emergency and operating theatre teams, the department provides a range of pain-relieving procedures, including those guided by ultrasound (USG) and C-arm/CT imaging. Furthermore, the department extends its services beyond pain management to provide palliative care, psychosocial support, and end-of-life care, ensuring holistic support for patients throughout their journey.

The department also offers a range of services to address non-cancer chronic pain, including PRP Therapy, Growth Factor therapy, and botulinum injection procedures.

Looking ahead, the department plans to fully equip

itself to provide advanced pain-relieving procedures such as radiofrequency ablation for long-term pain relief in both cancer and chronic pain patients.

### Education / CME/ Training:

- Online & offline 3 month USG MSK course for chronic pain and attended Workshop at
- · Kolkata from April to June in 2023.
- Attended Cadaveric Workshop for pain procedure in November 2023 at Bangalore
- Attended CME and Workshop for pain & palliative Care in June 2023 at Delhi.

#### **Publications:**

- MgSo4 as an adjuvant for postoperative Pain management for Vaginal Hysterectomy (VH) Procedure.

# Preventive Oncology

Lead: Dr Kumud Sahu (Consultant)



The top three cancers in India – breast cancer, cervical cancer, and oral cancer are all preventable and treatable. Approximately 70% of Indian cancers are caused by modifiable risk factors, making awareness and screening imperative. The department of preventive oncology focuses on averting preventable cancers by eliminating risk factors or detecting them at pre-cancerous or early stages by educating, creating awareness and screening the general population.

### 1) Mobile Cancer Detection Van

The van is equipped with advanced technologies such as a Mammography machine and Thermal Scanning machine via which team of experienced healthcare professionals offer a range of essential screenings, including oral examination, gynaecological examination, and Pap smear. Additionally, if advised, FNAC (Fine Needle Aspiration Cytology) and Brush cytology services are also provided to ensure accurate diagnosis and timely intervention.

#### a) Cervical Cancer Screening:

Screening for cervical cancer is conducted through a pap smear to detect precancerous lesions. Timely detection of early cervical cancer can lead to better outcomes. All women who screen positive by any of these tests are further evaluated by colposcopy and treated according to the findings.

### b) Breast Cancer Screening:

Self-Breast Examination: Breast self-examination workshops are conducted through health talks, collaborations with residential societies, universities, and frontline healthcare providers like ASHA, Ayush Doctors, Mitanins to educate individuals on checking their breasts for lumps or other changes. If any lumps or abnormalities are detected, individuals are advised to seek immediate medical attention. All women visiting the camps or outreach OPDs are taught self-breast examination.

#### Clinical Breast Examination:

Clinical breast examinations are conducted by consultants at the camp or hospital who carefully feel the breasts and underarm areas for lumps or any other abnormalities

#### Mammography:

Through the Mammogrpay machine, X-ray imaging is done to detect the presence of tumours or lumps in the breast

### c) Oral cancer Screening:

Oral cancer screening is conducted, and training on self-oral examination is provided to identify lesions. The exam includes checking all parts of the oral cavity for lesions such as leukoplakia (an abnormal white patch of cells), erythroplakia (an abnormal red patch of cells), unhealing ulcers, or growths in the oral

cavity, as well as an inability to open the mouth (OSMF). These lesions on the mucous membranes may develop into cancer

#### 2. Outreach Activities:

The department regularly conducts cancer screening camps in different villages of Central India in collaboration with various PSUs, corporates, universities, and residential societies. The outreach

component focuses on sensitizing and building awareness in the community regarding early signs of cancer and cancer screening. It also involves the 'train the trainer' program, holding meetings with different stakeholders and implementing cancer screening projects in the community to enable early diagnosis of the disease, ultimately reducing its incidence and mortality.





Team: Devesh Kumar Kaiwart (Assistant Nursing Superintendent) and Ms. Arunjyothi Nayak (Assistant Nursing Superintendent and Nurse Educator)

The nursing department comprises 134 nurses, along with 1 nursing educator and 1 assistant nursing superintendent. Oncology nursing care has become a specialized field globally, and to achieve quality and standard nursing practice, competency-based nursing practices were introduced, along with the credentialing and privileging of BMC nurses after theoretical and hands-on classroom and unit-based training. In March 2023, 2 nurses were sent for CVAD specialty training at TMH Mumbai. They have helped with the train-the-trainers program at BMC in delivering care for central venous access devices. Nursing acuity-based care is always the top priority in the BMC Nursing Department, where patient satisfaction is given utmost importance, alongside

consultant/staff satisfaction. Nursing Suggestion Box was introduced to collect feedback, leading to positive changes in nursing care. Programs such as health talks/education followed by CCP (Continuous Care Program) for patients as well as attendants were started and conducted. Through these programs, patients can experience a higher level of care at home, improving patient-to-staff bonding and bringing about positive changes in quality nursing practice.

Various nursing training development programs have been introduced, where nursing care in Central Line/CVAD, BLS/NCLS/ACLS programs have been successful as evidenced by 100% of nurses being trained for Code Blue, around 30% of nurses trained for Central Line care, and 20% of nurses trained for Chemotherapy specialized care.

Persistently keeping in mind the safety of patients, nurses at BMC actively participate in patient safety programs. Pre-medications of chemotherapy were stored in the Daycare Unit to ensure patients receive treatment on time. CVAD nurses introduced a central line care checklist for rounds and patient records for home care aiming to minimize chances of infections during home care. Nursing audits on Chemo port/Central Line care, Blood transfusion, and Extravasation Management have proactively improved nursing care towards patients' needs.

Taking a step forward in community healthcare and preventive oncology, nurses have visited Nandghar where skits on Breast Self-Examination, Personal Hygiene, and Hand Hygiene were performed.

Till date, the Nursing Department has achieved

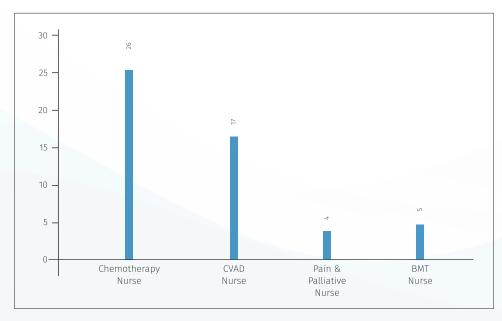
The following Charts enumerate the various active Nursing activities in Patient care & Health Education:

Nursing Excellence in December 2022. All nurses were trained for Basic Life Support by January 2023. Credentialing and privileging were conducted on Chemotherapy for 16 nurses in December 2022 and 15 senior nurses on CVAD in August 2023. Two nurses were trained for PICC/Central Lines certified Nurse at TMH Mumbai in February 2023. Twenty-one ACLS/NCLS-trained nurses and 106 nurses trained for BLS have received more than 8 times the Employee of the Month awards and an increase in the percentage of positive feedback from patients.

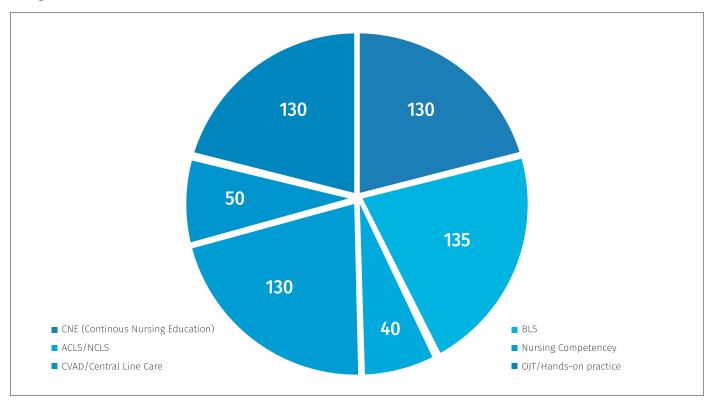
NABH accreditors, including different auditors, have visited and observed the various capacities, where knowledge expansion has been created under their guidance, specifically in ER care of patients, pro-activeness in training, and many more.

- 1) Specialization of Nurses
- 2) Nursing Education
- 3) Patient Education

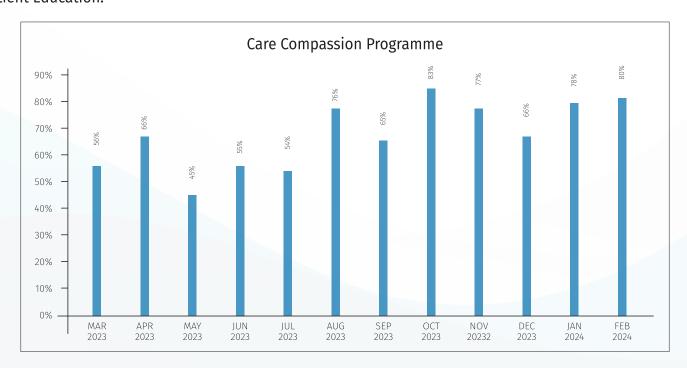
### Specialization of Nurses:



### Nursing Education:



### Patient Education:





### **Finance and Accounts**

Head of Department: Ms. Samiksha Shrivastava



Finance Department of our hospital stands as the bedrock of our financial stability and operational efficiency, comprising eight members. Their objective is to ensure the meticulous and comprehensive accounting and preparation of financial statements on a monthly and annual basis, adhering to the GAAP issued by the FASB and the Accounting Standards issued by the ICAI. Moreover, the department ensures statutory compliance with various regulations, including the Income Tax Act 1961, GST Act 2017, Companies Act 2013, MSME Act 2006, and other pertinent legal frameworks governing the hospital sector facilitated through a dedicated compliance portal designed and maintained by a renowned Big Four accounting firm. The Finance Department shoulders the responsibility of facilitating several audits, including Statutory Audit under the Companies Act of 2013 conducted by PKF Sridhar & Santhanam LLP, Income Tax Audit, Internal Audit in accordance with Group Policy by a Big Four accounting firm, Third-party Compliance Audit, Stock Audit. and CSR Audit.

Annual Budgeted Profit and Loss, Balance Sheet, and Cash Flow statements are prepared by the Finance Department in collaboration with various clinical and operational departments. Furthermore, the team oversees working capital management, purchase requisitions approval and negotiations with vendors

to ensure organization's best interest. Every financial transaction is monitored by the team, from maintaining detailed records of funds received from patients, sponsors, donors, and scrap sales to processing invoices and payments for suppliers, pharmacy services, and capital expenditure vendors. Additionally, the Finance Department manages physical cash received from patients/donors and handles daily bank transactions. All capital expenditures are evaluated, tracked, accounted for, and disbursed by the Finance Department.

Till YTD Feb'24, the team tracked ~13,000 sponsor invoices and processed over 10,000 vendor invoices. The hospital successfully sold scrap amounting to ~Rs 4.4 crores, adding to its revenue streams. Donations received through various sources amounted to Rs 220 lakhs out of which ~Rs 202.5 lakhs was specific donation and ~Rs 20 lakhs was donations received for patients. Out of the donations received in the BMC Charitable Fund, Rs 5.58 lakhs was spent on patient treatment & Rs 3.6 lakhs was used for distributing high protein diet to Daycare patients. Sponsorship raised for unrestricted education during the year amounted to Rs 77 lakhs.

Payor mix for the year- 36% Govt Scheme, 41% Cash, 23% TPA/Corporate. General to Private patient mix was 90%:10% during the year.

#### Vedanta Medical Research Foundation

CIN: U85190CT2008NPL020624

#### Balance Sheet as at 31st March 2024

All amounts are in INR Lakhs, unless otherwise specified

	Note No.	As at 31st March 2024	As at 31st March 2023
EQUITY AND LIABILITIES			
Equity			
Reserves and surplus	4	(18,665,49)	(17,435.87)
Corpus fund	5	38.076.65	38,076.65
Capital Grant	6	1.040.58	897.90
	-	20,451,74	21,538.68
Non-current liabilities			,
Long-term borrowings	7	1.572.40	1.594.39
Long-term provisions	8	42.64	17.89
3	_	1,615,04	1,612.28
Current liabilities			,
Short-term borrowings	9	765.99	282.53
Trade and other payables			
Due to micro and small enterprises	10	320.62	151.78
Due to others	10	1,084.52	631.93
Other current liabilities	11	254.92	231.96
Short-term provisions	12	8.46	2.52
,	_	2,434.51	1,300.72
Total equity and liabilities	_	24,501.29	24,451.68
ASSETS			
Non-current assets			
Property, plant and equipment and Intangible a	ecete		
Property, plant and equipment and intangible a		20.570.76	19.856.28
Intangible assets	13	39.67	54.74
Capital work-in-progress	14	11.58	2.268.56
Odpital Work-In-progress	_	20.622.01	22,179,58
Long-term loans and advances	15	71.92	71.92
Other non-current assets	16	1,169.87	896.13
Strain Harr Sarreint addeds	- "	21,863.80	23,147.63
Current Assets			
Inventories	17	244.03	200.82
Trade receivables	18	1,873.39	712.18
Cash and bank balances	19	65.27	34.22
Short-term loans and advances	20	117.72	96.37
Other current assets	21	337.08	247.89
		557.00	
Assets held for disposal-Project	22	-	12.57
Assets held for disposal-Project	22 _	2,637.49	12.57 1,304.05

Summary of significant accounting policies

1 - 3

For and on behalf of the Board of Directors of

Vedanta Medical Research Foundation

The accompanying notes are an integral part of the financial statements

As per our report of even date

For PKF Sridhar & Santhanam LLP

Chartered Accountants

Firm Registration No: 003990S/S 200018

003990S/S2#falhanarayanan J

Membership No: 220369

100N : 24220369BKCERU5833

Place: Mumbou Date: 30 June 2024

DIN: 01896810

Direct

Place: Pune Date: 30 | June | 2024

Tarun Jain

Director DIN: 00006843

Place: Mumbai Date: 30 | June | 2024



#### **Vedanta Medical Research Foundation**

CIN: U85190CT2008NPL020624

#### Statement of income and expenditure for the year ended 31st March 2024

All amounts are in INR Lakhs, unless otherwise specified

	Note No.	Year ended 31st March 2024	Year ended 31st March 2023
REVENUE			
Revenue from operations (net)	23	8,803.74	7,322.08
Other income	24	123.78	174.25
Total Income (A)		8,927.52	7,496.33
EXPENSES			
Cost of materials consumed		2,442.93	1,682.78
Employee benefits expense and Outsourced manpower charges	25	1,523.72	1,661.81
Professional fees		2,071.40	1,803.76
Finance cost	26	173.72	15.75
Depreciation and amortization expense	13	1,767.25	1,724.71
Other expenses	27	2,202.58	1,882.65
Total Expenses (B)		10,181.60	8,771.46
Deficit before exceptional items (C=A-B)		(1,254.08)	(1,275.13)
Exceptional items (D)	28	(24.46)	7,860.51
Deficit for the year (C-D)		(1,229.62)	(9,135.64)

Summary of significant accounting policies

1 - 3

The accompanying notes are an integral part of the financial statements

As per our report of even date

For PKF Sridhar & Santhanam LLP

**Chartered Accountants** 

Firm Registration No: 003990S/S 200018

Ramanarayanan J

Partner

Firm No 0039905/S200018 MUMBAI

Membership No: 220369

UDIN: 24220369 BKCERU5833

Place: Mumbai Date: 30/June/2024 For and on behalf of the Board of Directors of

Vedanta Medical Research Foundation

DIN: 01896810

Place: Pune

Date: 301 June 12024

Tarun Jain

Director

DIN: 00006843

Place: Mumbou

Date: 30/June 12024



The finance team happily pronounces about the growing financial trends of the company, while achieving self-sustainability, securing hospital's

ability to continue delivering quality care for years to come.

### Purchase and Store

Head of Department: Mr. Hemant Kumar Sahu 'Purchase'



The Purchase department comprises of five team members and the primary objective of the department is to ensure the seamless procurement of goods and services essential for the smooth operation of the healthcare facility. This includes sourcing pharmaceutical drugs, medical equipment, consumables, and various services including CMC/AMC while prioritizing quality, cost-effectiveness, and timely delivery. Additionally, the department strives to maintain regulatory compliance, uphold ethical standards, and foster strong vendor relationships to support the hospital's mission of delivering high-quality patient care.

In the calendar year 2023, the hospital's procurement department facilitated the acquisition of:

Capital equipment's valued at INR 4.65 Crore for the entire centre.

Capital services/projects totalling INR 2.02 Crore for the entire centre.

Consumables, spares, pharmacy drugs, lab

reagents, and test kits were procured in accordance with department requirements approved by management, amounting to INR 42.22 Crore with line of 3168 products for the centre, with an annual rate contract procurement exceeding 85%.

Various operating expense (Opex) services with 248 types of services valued at INR 15.22 CR including CMC/AMC of equipment's.

In the calendar year 2023, the Hospital Purchase successfully coordinated department the procurement of materials and arranged services totalling INR 64 Crore. Notably, the cost savings of approximately 52 lakhs in FY 2022-23. This underscores department's achievement the commitment, bolstered by collaborative efforts with the finance team, senior management, and departmental HOD's, in reviewing and renegotiating recurring items, selecting pharmacy brands, and engaging with new vendors.

The store comprises of 3 team members and the primary function encompasses a comprehensive range of tasks, starting from Goods Receipt Note (GRN) entries and extending to the secure storage of goods. This includes the meticulous maintenance of laboratory reagent kits at optimal temperatures, as well as the proper handling and storage of hazardous items in accordance with safety protocols. Additionally, the store team is responsible for accurately recording entries and reservations in SAP, ensuring efficient booking processes.

On a monthly basis, the store conducts thorough Perpetual Inventory Audits, covering 100% of all items in stock. This meticulous auditing process includes the identification and management of items nearing expiry, facilitating their timely return and subsequent follow-ups for Credit Notes. Furthermore, a significant aspect of the store team's role involves active involvement in the sale of scrap materials, wherein collaboration with both the Scrap Auditor and Security team is paramount to ensure seamless execution.

Throughout the year 2023, the store successfully handled 2769 different lines of products, with an inventory value of 2.11 crore as of 31st March 2023 including Pharmacy inventory. Notably, the BMC main store-maintained accuracy and integrity in its inventory records, as evidenced by the absence of any discrepancies between ledger and physical stock items for the BMC main store during both annual external and internal audits. The Pharmacy department oversees the management of pharmacy inventory.

-Throughout the year 2023, the store team successfully orchestrated the sale of a total of 1460 metric tons of scrap material, amounting to a substantial value of INR 4.53 crore. This achievement was made possible through seamless collaboration with the senior management, finance department, security personnel, and scrap auditors, underscoring the effectiveness of interdepartmental teamwork in optimizing resource utilization and maximizing revenue generation.

# Information and Technology

Head of Department: Mr. Arunava Banerjee



The department, consisting of 5 members, serves as the backbone of the organization's communication, data flow, information security, archival, and process automation. The IT department always strives to provide state-of-the-art facilities and uninterrupted services to both the clinical and non-clinical teams, aiming to enhance the quality of services provided to patients.

BMC boasts campus-wide up-to-10-GBPS LAN

connectivity and secured Wi-Fi coverage with redundant ILL/MPLS support, backed by fiber cable. Additionally, the department has implemented VOIP for seamless data and voice communication over the same network.

The department's own on-premises data centre is firewalled by Sophos in HA mode. After the firewall, the entire network is routed and controlled through L3 Core Switches in HA mode, providing confidence and flexibility in network security, monitoring, and achieving 99% uptime for the data centre.

At the infrastructure level, The department is responsible for maintaining and supporting all active and passive components, including 2 firewalls, 2 L3 switches, 9 servers, LTO archival tape, 450+ network nodes, 350+ users, call managing tools, WLC & APs, audio/video conferencing facilities, nurse call systems, CCTV monitoring, and biometrics.

Technology serves as an enabler; the IT department has implemented a Hospital Information System

(HIS) fully integrated with Lab Information System (LIS) and Radiology Information System (RIS) to fast-track the patient diagnosis process. Furthermore, the department has a full-fledged PACS system for radiology image archival. Flexible yet controlled procurement and revenue management processes have been achieved through SAP.

As a part of its paperless initiative, the department has developed an in-house portal catering to add-on and ancillary process automations such as Online Patient Feedback, Incident Reporting & Monitoring, Complaint Management Process, Management Specific MIS reporting and Analysis, HIC module, etc. This initiative has significantly reduced major manual work hours and paper use by end users.

In the upcoming year, IT plans to implement a full-fledged online EMR application to achieve a 99% paperless patient information system. This step will further enhance the quality of service and patient satisfaction.

# Human Resources Head of Department: Mr. G. Anjaneya Reddy



The Human Resources department at BMC, comprising three members, plays an important role in organizing events and celebrations to enhance the employee experience and encourage a healthy

workplace culture.

### **Employee Appreciation Events:**

Recognizing the hard work and dedication of the

team is paramount. The Department organizes various events throughout the year, such as Employee Appreciation Day, where gratitude for the contributions of each individual is expressed. These events often include awards, personalized messages, and small tokens of appreciation to show heartfelt thanks.

### Team Building Activities:

Building strong relationships among team members is crucial for fostering collaboration and synergy. The Department regularly hosts team-building activities, ranging from outdoor retreats to in-office workshops. These events are designed to promote communication, trust, and camaraderie among colleagues.

### **Holiday Celebrations:**

Holidays provide an excellent opportunity for the Department to come together and celebrate as a community. Whether it's a festive gathering for Christmas, Diwali, or other cultural and religious holidays, everyone is ensured to feel included and valued during these special times.

#### Professional Development Events:

Learning and growth are fundamental to our organization's success. The Department organizes workshops, seminars, and training sessions to

support the professional development of team members. These events not only enhance individual skills but also contribute to the overall advancement of the organization.

### Saturday Learning Session:

These sessions serve as opportunities for continuous growth and development. With engaging topics and expert speakers, employees gather to expand their knowledge and skills, fostering a culture of lifelong learning and innovation.

#### Induction:

Monthly process training to integrate new employees into the organization and make them understand the systems and procedures followed by the organization. Induction training helps new employees settle down quickly in the new work environment.

### Annual Health Checkups:

As staff welfare measures, BMC initiated annual health check-ups for all staff from September 1st to October 15th, 2023.

#### Employee Pulse Survey:

The Pulse Survey is designed to assess various organizational factors with the vision of identifying and improving the employee life cycle.



Head of Department: Mr. Vipendra Singh Rajput



The Public Relations department consisting 13 members manage various activities on a daily basis to ensure effective communication and engagement with the public. This includes:

#### Media Relations:

The department periodically organised press conferences and handled media inquiries to keep the public informed about BALCO Medical Centre's initiatives, events, and achievements.

### Conferences, CMEs, Meetings, and Seminars:

Planned and coordinated the BMC Chhattisgarh Cancer Conclave, BMC's flagship events and other internal and external conferences, continuing medical education (CME) sessions, meetings, and seminars to facilitate knowledge-sharing and professional development among healthcare professionals.

#### Communications:

The department manages both external and internal

communication through various channels such as social media, print media, radio, and other mediums to disseminate important updates, share health-related information, and promote hospital services and events. Additionally, produces quarterly newsletters and patient information booklets to ensure effective communication with both staff members and patients.

### Corporate Social Responsibility (CSR):

Oversaw CSR initiatives and projects aimed at giving back to the community and supporting social causes aligned with BMC's values and mission.

#### Community Engagement:

Efficiently engagee with the community through 170+ regular outreach activities, including outpatient department (OPD) services, screening camps for early detection of diseases, and health awareness talks to promote preventive healthcare practices and disease awareness.

### **Billing and Customer Service**

Head of Department: Mr. Mohit Sharma



The department of Billing and Customer service comprises 32 employees. The department's scope of services include the following:

#### Reception:

The department serves as the welcoming face of the

hospital, extending greetings to every patient and assisting them at the initial step of their hospital journey.

### Registration and Consultation:

Registration and Consultation services are provided

for all patients visiting the hospital, including diagnostics. Additionally, tele-consultations and video consultations are offered to patients for their convenience

### Appointments:

Appointments are facilitated through online booking systems for consultations, along with a dedicated helpline for the Nuclear Medicine department.

### **Customer Engagement:**

Customer Engagement efforts involve coordinating services for patients on both the Outpatient Department (OPD) and Inpatient Department (IPD) floors.

### Counselling/Admission/Discharge:

Counselling, Admission, and Discharge processes are conducted for patients availing services in the OPD, including diagnostics, as well as for IPD patients undergoing surgery or medical management.

#### Estimation:

Estimations are provided to cash and corporate patients based on their desired bed category.

#### Discharge:

Discharge turnaround time (TAT) is maintained at 4

hours, with adherence to the timeline for over 93% of patients.

### TPA/Corporate:

A separate desk is dedicated to handling inquiries and processing services for Third Party Administrator (TPA) and corporate patients to minimize delays.

#### Patients Feedback:

Patient Feedback is regularly collected from all departments to enhance overall service quality, achieving a satisfaction rate of 96%.

#### Call Centre:

A Call Center has been established to handle appointment scheduling, report dissemination, and patient inquiries, with follow-up calls made to new patients regarding consultant recommendations. Information regarding schemes such as ICS, AKITF, ECHS, ESIC, CGHS, BSKY, and Ayushman is provided to patients.

### Claims/Invoice Dispatch:

Claims and Invoice Dispatch processes maintain a 100% submission rate within the stipulated time frame of 7 days.



Head of Department: Mr. Shyam Sundar Rajamohan



Comprising of 3 in-house members, and 23 manpower resources through business partners across three shifts, the Engineering & Maintenance (E&M) department oversees day-to-day maintenance activities ensuring round-the-clock coverage and new development projects within the organization.

Under the purview of the Engineering & Maintenance department, maintenance is overseen for various critical systems including HVAC (Heating, Ventilation, and Air Conditioning), MGPS (Medical Gas Pipeline System), Electrical systems, Plumbing, Fire Detection and Alarm (FDA) Systems & Fire Fighting (FF) Systems, CCTV, Sewage Treatment Plant (STP), Effluent Treatment Plant (ETP), Water Treatment Plant (WTP), Medical Reverse Osmosis (RO), Pneumatic transfer system (PTS).

In addition to Planned Preventative Maintenance (PPM) and Corrective Maintenance (CM), the department completed several new development work:

- The department made significant contributions to the NABH audit, achieving commendable results with only 2 observations.
- Maintenance of 94% of equipment and machinery was maintained by our in-house team
- A total of 514 preventive maintenance tasks were completed last year, ensuring the reliability and longevity of critical assets.
- Only 6% of equipment maintenance was outsourced to OEMs for AMC/CMC.

In addition to regular maintenance tasks, the

team undertook the following activities:

· Modifications and Renovations to Existing

#### Infrastructure:

Successfully established designated areas for commercial activities, Medical Record Department (MRD), and doctor lounge and prepared accommodation facilities to 35 patients in the Sukh Sarai.

- Completed tiling works in the mortuary area, enhancing hygiene standards and facilitating easier maintenance procedures.
- Installed a new RO line and a 5000-liter tank to ensure a reliable and sufficient water supply for BMT procedures.
- Implemented an Overhead Tank (OHT) system for the Sarai to meet the needs.
- Development of 35m Front Garden Fencing Using Scrap Materials
- Extended the electrical supply network by laying a 1-kilometer-long cable with of 150sqmm specifically for the Sarai facility.

### Management of Major Breakdown Incidents:

Addressed and rectified issues with the Fire Control Panel, High-Tension (HT) Panel Breaker, and DG Panel, ensuring uninterrupted emergency response capabilities.

- Power Factor Panel Automation Works:
   Rectified issues in automation in Power Factor
   Panels, optimizing energy efficiency and power utilization across the facility.
- · PTS line rectification work.

### New Development Works:

Developed of BMC Cancer Daycare.

• Demolition of old structures to make way for future expansion projects.

### **Steps towards Energy Optimizations:**

At BMC, energy consumption is a significant operational cost. Understanding the distribution of energy usage and implementing strategies to optimize consumption can lead to substantial savings. We focus on the energy optimization initiatives undertaken at our hospital to reduce energy consumption, particularly in lighting and HVAC systems.

### **Energy Distribution:**

Generally, the energy bill is primarily attributed to lighting and water heating & HVAC systems. On average, lighting accounts for 15-20% of the energy bill, while water heating & HVAC systems contribute to 40-50% of the total energy expenditure.

### Initiatives for HVAC System Optimization:

To optimize energy consumption in HVAC systems, the following initiatives have been implemented:

#### Diffuser Closure:

74 diffusers were closed in unused areas, reducing the load on the Air Handling Units (AHU). This action effectively decreased energy consumption during non-peak hours.

#### Scheduled On & Off Times:

Out of the 23 Air Handling Systems (AHS), 7 were scheduled to operate from 9:00 am to 5:30 pm consistently. Adhering to this schedule reduced energy usage during peak hours, thereby optimizing energy consumption.

### Initiatives for Lighting Optimization:

To optimize energy consumption in lighting, motion sensors were installed in common areas. These sensors detect motion and adjust the lighting, accordingly, ensuring that energy is only used when necessary.

Impact of Initiatives: The implementation of energy optimization initiatives has resulted in significant year-over-year (YOY) savings in energy consumption:

In December 2023, there was a reduction of 14% in energy consumption compared to the previous year.

In January 2024, energy consumption decreased by 5% compared to the previous year.

In February 2024, despite external factors, there was a marginal increase of 0.5% in energy consumption compared to the same period last year.

In the upcoming year, the department plans to integrate:

### Solar Power Integration Plan:

We are planning to procure energy from solar plants through open access arrangements. Initially, we intend to fulfil 50% of our energy requirements through solar power generated by 1.5MW solar plants. This strategic decision aligns with our sustainability goals and demonstrates our dedication to environmentally responsible practices.

### Financial Impact:

By integrating solar power into our energy supply chain, we anticipate substantial cost savings. On average, this initiative is projected to save between 5 -6 lakhs per month, resulting in an annual saving of approximately 66 lakhs.

### Food and Beverage

Head of Department: Mr. Praveen Shankar



In 2023, BALCO Medical Centre's Food and Beverage (F&B) department comprising 38 staff members ensured a seamless and safe dining experience. The team provided efficient services without any incidents of falls, injuries, or fire in the past year. Regular health check-ups, mandatory half-yearly, were conducted for the employees of the department. The department maintained a robust safety protocol, keeping food samples for 72 hours and conducting half-yearly sampling. Monthly water sampling and frequent audits by the Quality & HIC team upheld high standards.

The F&B department successfully cleared both NABH 4th and 5th Edition final assessments with zero audit points. The team prioritized ongoing staff training with daily briefings, de-briefings, and monthly interdepartmental sessions. Quarterly swabs were taken for hygiene, and the use of biodegradable

products showcased environmental responsibility.

The department is composed of a team of 38 members which includes 1 Senior Cook, 2 Cooks, 4 Assistant Cooks, 1 Cafe Supervisor, and 2 IPD Supervisors, along with a dedicated support staff of 28 individuals.

With 6343 units of high-protein diets for chemotherapy patients and 170,000 servings to 22,086 patients, the F&B team significantly contributed to patient care. They also served attendees of 25 national and international meetings. The introduction of a structured feedback mechanism in 2023 led to improved patient satisfaction scores, highlighting the department's adaptability and commitment to excellence.

### Housekeeping

Members: Dr. Komal Pandit, Mr. Sudhanshu Kumar and Mr. Praveen Shankar



Housekeeping, along with laundry and pest control comprising 97 staff members operate 24/7 in the hospital to ensure quality care, hygiene, and cleanliness throughout the facility. Cleaning is conducted once in every shift in non-critical areas and every six hours in critical areas, as required, to maintain sanitized environments, particularly in high-touch areas.

With zero incidents of falls and a hand hygiene compliance rate of 94%, staff members receive vaccinations in cases of low hepatitis titers and undergo early health check-ups for their well-being. To further ensure sanitation and hygiene, the department facilitates the washing of staff shoes and uniforms on-site

Staff members are extensively trained in dilution practices, Material Safety Data Sheets (MSDS) usage to prevent exposure to spills, hand hygiene protocols, sneezing and coughing etiquette, patient safety, and fall prevention. Additionally, they receive training from the Biomedical Engineering (BME) team to safely handle critical equipment and adhere to cleaning and maintenance guidelines.

During the NABH 5th edition audit, zero observations were found, showcasing the department's commitment to continuous quality improvement. Regular audits conducted by the Hospital Infection Control (HIC) team on a monthly basis, Quality & HIC team quarterly, and NABH team every six months further ensure excellence in patient services.

## Security

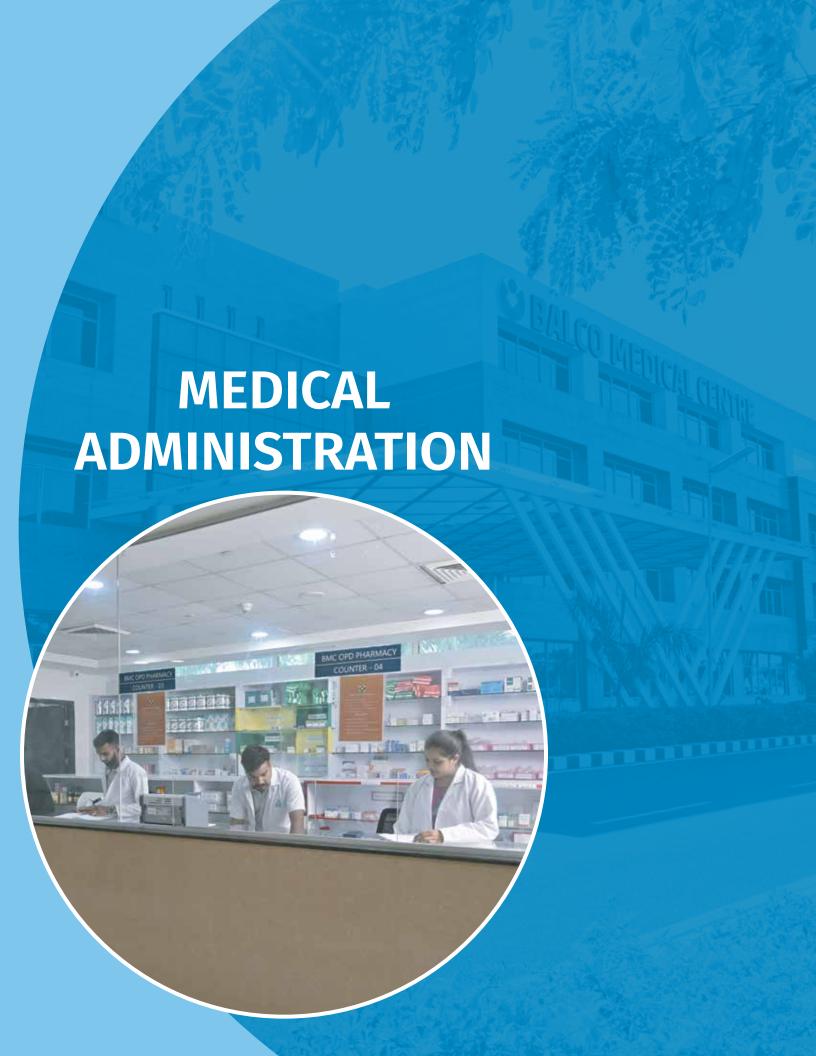
### Head of Department: Mr. Mukesh Pandey



The Department, comprising 36 members, operates 24/7 to monitor the hospital campus and oversee CCTV cameras. The team manages Integrated Building Management Systems (IBMS), fire systems, and liaises with various stakeholders for the efficient functioning of day-to-day activities. Additionally, the department manages transport and parking services, facilitates VVIP movement management, and ensures smooth operations within the premises.

In 2023, the department:

- Conducted Fire Safety Training for all hospital staff
- · Successfully underwent NABH inspection with zero observations.
- · Renewed fire licenses promptly.
- Carried out demolition work without any reported incidents.
- Reported zero cases of theft or accidents throughout the year



### Medical Records Department

Head of Department: Mr. Suman Kumar Singh



The Medical Record is a systematic documentation of a patient's medical history and current treatment and care given to the patient. It serves as a basis for planning future patient care, documenting communication between the hospital and any other health professionals contributing to the patient's care, and assisting in protecting the legal interests of the patient and the hospital responsible for the patient's care. The Medical Records Department ensures that the medical records of the patient include all important documents and pertinent information.

Health authority compliant services provided by medical records department:

- Release of Medical Leave/Fitness/Treatment Certificates to the patients as per their need and keeping a master record of all such certificates released from the various doctors in the BMC as per the guidelines of Medical Code of Ethics.
- Registration and submission of (M.C.C.D.) Medical Certification of Cause of Death form and Death Report for every case of death in BMC as inpatient or as outpatient for its approval. Releasing death certificate to relatives after its approval from the local body of "office of the Registrar General & Census Commissioner, India.
- · Observing professional ethics to protect the confidentiality of the patient information from

- unauthorized persons and keeping medico legal record under safe custody to produce in court proceedings whenever required.
- Releasing the patient files in accordance with the established procedure for medical care, medical education, medical training, medical care evaluation management and legal purpose.
- Reviewing patient files by doing deficiency check of all the Medical Records of admitted patients to ensure that they include all important documents and pertaining information.
- Preparing monthly statistical reports concerning the hospital clinical and diagnostics activities carried out and reporting it to senior management to take key management decisions.
- Notifying concerned district health authorities about notifiable disease cases in the hospital in prescribed format on daily, weekly & monthly basis in online mode
- To maintain and protect medical records in accordance with the policies relating to preservation and destruction as per the NMC guidelines.
- Assisting in coding and indexing of diseases and providing a detail summary report as per the need on monthly basis to Medical Director.
- To correspond with various individuals and institutions in government bodies. This includes furnishing of information to courts on summons, police station for medico legal cases, insurance

- To correspond with various individuals and institutions in government bodies. This includes furnishing of information to courts on summons, police station for medico legal cases, insurance claims, etc.
- Participating in educational programs such as seminars, workshops and conferences related to the medical record profession.



### Central Sterile Supply Department



Central Sterile Supply Department (CSSD) comprising of 4 members is responsible for cleaning, disinfecting, packaging, sterilizing, and distributing reusable surgical instruments, patient drapes and dressing material supplies to prevent cross contamination and infection.

CSSD maintains strict unidirectional traffic flow of material across department to adhere highest quality standard and prevention of cross contamination. CSSD Quality control includes the Physical, chemical and Biological Monitoring of Processes.

The main functions of a Central Sterile Supply Department include:

### 1. Cleaning and decontamination:

This involves the removal of visible debris and organic material from instruments and equipment.

### 2. Packaging:

This involves appropriate packaging of clean goods that is suitable for method of sterilization, and that act as physical barrier between clean goods and outside environment.

#### 3. Sterilization:

This process kills or removes all microorganisms, including bacteria, viruses, and spores, from the instruments and equipment.

#### 4. Storage:

Sterile supplies are stored in a controlled environment to maintain sterility until they are needed for use.

#### 5. Distribution:

Sterile supplies are distributed to the user departments within the healthcare facility.

The Central Sterile Supply Department plays a critical role in infection prevention and control, as it ensures that medical equipment and supplies are free from Pathogens that could cause infections in patients.

We have state-of-the-art CSSD and best amongst Chhattisgarh's healthcare facilities. CSSD is equipped with 2 EN-Standards compliant High Speed Pre-Vacuum Steam Sterilisers, Rotary Heat Sealers, Ultrasonic cleaner, Ethylene Oxide (EtO) Sterilizer.

### Our CSSD is CAHO-ACE certified (2021-2023) facility.

SN	CSSD Production Data	Year-2023
01	Number of ETO Items Sterilized	36,000
02	Number of Surgical OT Linen Packs Sterilized	15,300
03	Number of Surgical Instruments Sets (OT & Wards) Sterilized	52,500





The Pharmacy team consist of seven permanent pharmacists and nineteen contractual pharmacy staff. The department functions 24x 7 and caters to prescriptions for both in-patients and out-patients.

The average daily transactions in the year 2023 were around INR 10lakhs per day and the annual turnover was over INR 36crs. The two OP pharmacy outlets, one in the hospital and one in the daycare together executed INR 2.9 crore sales transactions during the year.

In addition to providing medicines at highly discounted rates there were medicine concessions offered to more than patients valued at INR 25 lakh for the year 2023. Being a superspecialist cancer Centre, the drugs and surgical items were directly procured from the manufacturer. We were able to

avail a good discount ranging from 60% to 70% on the Maximum Retail Price (MRP) value for all the chemo drugs and in the similar way for all surgical items, we were able to get an average, discount ranging from 70% to 80% on the MRP.

Additionally, the department consists of three clinical pharmacists who oversee clinical activities and chemo admixing. This includes regular prescription auditing and the mixing of high-risk chemotherapy medications in a dedicated area equipped with Biosafety cabinet Type 2 Class A HEPA (High Efficiency particulate Air) filter designed for this purpose.

To ensure continuing education & training for pharmacists, the department had arranged training modules on periodic/weekly basis.

### **Biomedical Engineering**

Head of Department: Mr. Manendra Bele

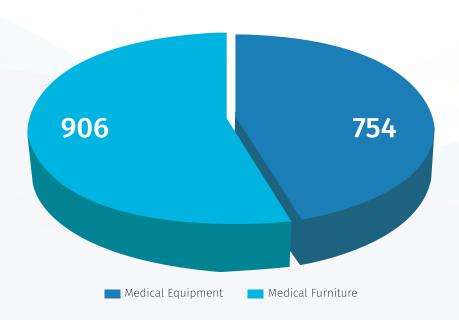


Biomedical engineering is the application of engineering principals and techniques to the medical field. It combines designing and problem solving skills of engineering with medical and biological science to improve health-care diagnosis and treatment.

BMC has its own Biomedical engineering department comprising of 2 manpower who provide 24x7 support to Doctors, Nurses, Technicians and other Medical Staff.

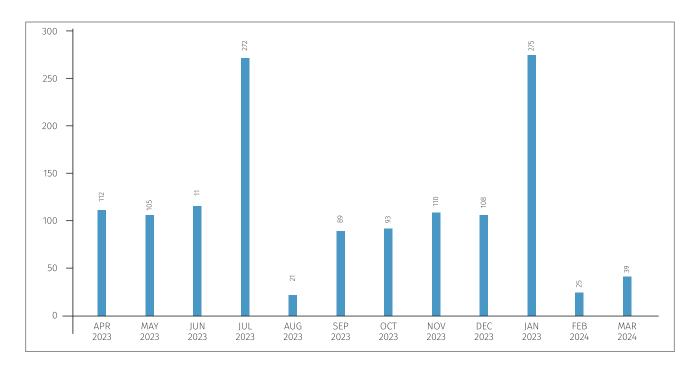
### Responsibilities of the Department:

- · Assisting New Equipment Installation
- · Carry out Daily Rounds in User Departments
- · Carry out Planned Preventive Maintenance
- · Assisting Calibration/Quality Assurance
- · Attending Breakdown Calls
- Maintaining track of AMC/CMC of Critical Equipment
- Maintaining Equipment Downtime Analysis, RCA, CAPA and other Quality Indicators
- · Maintaining record of Biomedical Stock & OPEX



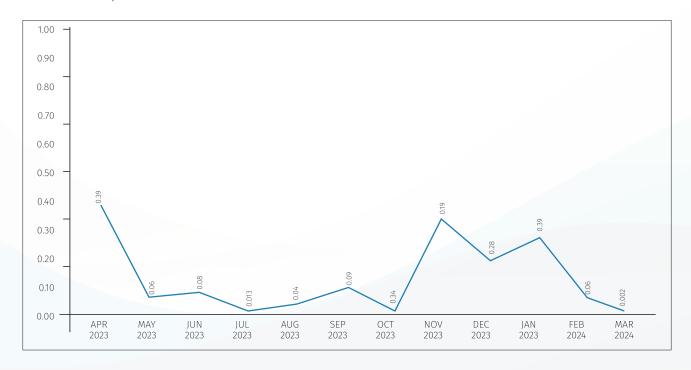
### Preventive Maintenance:

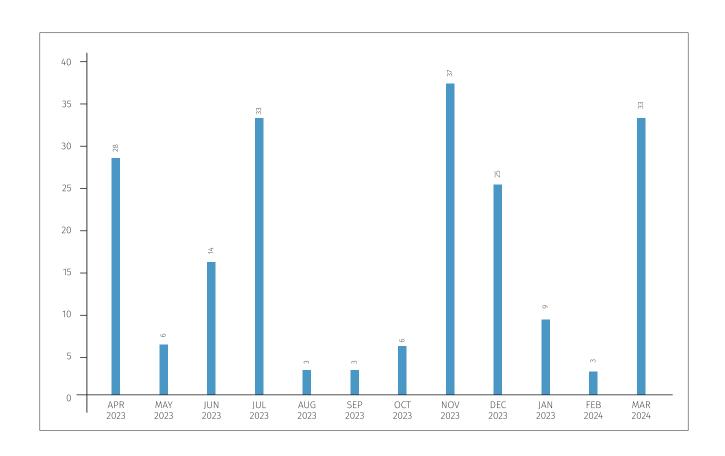
(Avg. Freq – 6 Months) vs Annual Maintenance Contract (LAMC/CAMC)



### Critical Equipment Uptime:

(Benchmark <1%)





Quality Management

Head of Department: Ms. Shubhangi Chandrakar



The Quality Management team works towards maintaining the required standards, regulatory norms and accreditation status through their oversight activities, periodic reviews, and regular audits to ensure continual quality care and safety.

The hospital underwent NABH re-accreditation in October 2023 to maintain the country's pioneer accreditation status in healthcare which symbolizes commitment to best care practices and a safe environment of care.

The Patient Safety and Quality Improvement Committee met regularly for implementing team-based patient safety practices, processes, and improvements.

The Quality Department's 2023 Annual Report provides a summary of the important work performed

under the aegis of Hospital Administration and Clinical Governance which regularly evaluates measures against rigorous endorsement standards, measurement gaps, and identify make recommendations to improve the quality of healthcare. The report highlights three ongoing consensus-based programs that address these aims: Achievement and Maintenance of Accreditation Status of the Organization, the Control of Hospital wide Documentation in Policies, Processes and Pathways with the help of structured formats and the Evaluation of compliance with the help of Audits and inspections while reinforcing training and education for all stakeholders. In addition, it describes additional targeted activities to advance and align high-impact valid quality measures like Incident Reporting and Analysis, Quality Improvement Projects and Risk Management Activities like Mock Drill of emergency situations; Identification, Analysis, and documentation of related risks in Department Risk Register along with mitigation plan in place.

BMC's activities align with Quality Council of India's strategy for country's Healthcare sector which is based on the initiative of 5th Edition Standards of National Accreditation Board for Hospitals and Healthcare providers (NABH) to strengthen patient and caregiver engagement, eliminate disparities, reduce burden, and improve quality for all.

#### Service:

All Department Heads/ Officers in Charge facilitated reaccreditation of NABH through onsite assessment of hospital in October 2023.

All policies and procedures including departmental manual and patient record formats underwent a rigorous review, amendment, and revision by the core quality team of primary stakeholders and approving authority. The hospital is following the processes as per 5th edition standards and guidelines of NABH.

Based on the document revision done by core quality team, some highlights are the introduction of Medical Oncology Manual, Emergency Preparedness Manual and Security Plan in Nuclear Medicine Department, Policy on Pressure Ulcer Prevention, Policy on DVT management, Contingency Plan for Staffing, Employee Discount Policy, Human Resources Manual, Credentialing and Privileging of Paraclinical Staff, Disaster Recovery Manual in IT Department and some significant revisions include:

- Updating of Radiology manual with turnaround time for reporting of tests and results,
- · Addition of QA plan in Emergency Manual,
- Addition of monitoring the vitals during blood transfusion in the Policy for Handling, use and administration of blood and blood products.
- Updating of list of items in Policy for Single Use devices

Among the BMC multidisciplinary hospital committees, the Mortality & Morbidity committee met monthly to review the death cases for future improvement in identified care gaps. A total of 146 institutional deaths have been reviewed by the committee and 30-Day mortality has been recorded in the meeting. From August'2024 onwards the monitoring of Standardized Mortality Rate in ICU was initiated, data was shared with the mortality review team, as part of NABH 5th Ed. requirement. Patient Safety and Quality Improvement Committee met quarterly to review 32 mandatory indicators of NABH before submission in the portal and Cardiopulmonary Resuscitation Committee met biannually in the year 2023 which mandated BLS training for all employees as part of employee awareness program, total 11 sessions of training were done by two in house BLS instructors who are Consultant in Anaesthesia and Critical Care Dept.

The Hospital Safety Committee reviewed 49 (27 clinical and 22 non-clinical) incidents reported from January to December 2023 and initiated appropriate corrective and preventive measures. Standardization of incident report and sensitization on the reporting system to the staff enhanced the reporting of incidents by 15% by Doctors and other staff as compared to 7% in the previous year. Nursing staff continued to be the maximum contributors in

contributors in reporting the incidents. Intense root cause analysis led to process changes for successful implementation of corrective and preventive actions. Some examples of incident triggering organization wide process change are mandatory Urine Pregnancy test before USG for all married female in reproductive age group of 18 to 45 years (patient has to confirm the date of LMP and status of pregnancy); and implementation of consent from patient on High Value Drugs/ Procedures/ Investigations.

The initiative of daily inspection began in June 2023 wherein a tracer technique was used to ascertain implementation hurdles process gap, effectiveness of training to staff in successful implementation of policies and SOPs. Some examples of tracers done are obstruction free Fire Exit and Egress Route in staircases, emergency exits and ramp of the building; Consultant's drawer inspection in OPD for sample medication; Spill Kit audit on availability at right location and completeness of kit for management of chemical and biological spills and correct implementation of newly introduced formats in clinical area like DVT assessment in surgical and medical oncology dept. and implementation of revised drug chart.

The multidisciplinary team represented by nursing, general and medical administration brought to the fore many observations that were resolved in coordination with the user and concerned departments.

Internal Audits were held in the month of March 2023 and September 2023 for all the departments including ancillary services by NABH trained BMC Consultants and professionals in Nursing and Administration. This exercise helped in identifying opportunities for improvements and compliance to quality systems and standards. Compliance gap Reports along with fixed timeline for closure were shared with end user department and monitoring of closure was done by the audit team post completion. Mock Drills on eight emergency situations were conducted in a periodic manner, to check staff

promptness and adherence to appropriate response mechanism while dealing with crisis in the floor. With an average of 3 deviations per mock drill, the response was satisfactorily demonstrated by team handling emergencies. There were two complete evacuation scenarios exercised by on duty staff during fire mock drill in February and September month. In the disaster management mock drill, entire hospital services demonstrated handling of mass casualty and dealing with non-onco patient by appropriately following steps of triaging.

#### 1. Education:

with Keeping in accordance the National Accreditation Board for Hospitals and Healthcare Organizations' 5th Edition standards and relevant requirements, regular training and orientation sessions were conducted for the existing and new staff during monthly Induction schedule and planned training program from June to September. The topics covered were, Universal safety precautions, Infection control & Safe Practices, Orientation to Quality and Accreditation aspects in BMC, Fire Safety & Emergency Codes Training, Basic Life Support Training and Disaster Management mock drills were conducted for all staff by eminent Doctors and trainers from Nursing, Administration and Support Service Team. The orientation session on quality management activities like Incident Reporting system, sentinel events and root cause analysis tools of quality management were also conducted. Overall, 450 attendees benefitted from the above 30 sessions that were held in the year 2023.

### 2. Summary of Activities in Quality Department:

# a. Action plans implemented for the service and patient issues:

- i. Guidelines developed / amended Introduced PERM & PORM, Care pathway for Neoadjuvant therapy for Breast Cancer & Management of Neutropenic Sepsis
- ii. Revied format of Imaging, Surgical and Anesthesia Consent. From modality specific consents in

Imaging Services a single format was finalized, likewise in case of surgery and anesthesia, every procedure had specific consent which were than clubbed in one format for all types of surgery/procedure and all types of anesthesia have one consent form.

- iii. Uniform Communication Board for all staff in respective Departments with display of key information, instructions and contact details.
- iv. Display of hospital mission, vision and values, patient rights, and responsibilities in prominent location with information about escalation of complaints, feedback, and suggestions for improvement of services
- v. Display of Emergency codes, ACLS & BLS protocols, Triage Guidelines, Location of Crash cart, Grievance Committee Members contact information and relevant Department specific information in the Communication Board
- vi. The Prayer Room of all faith for patient attendants has been marked on the third floor, to respect patient and family's religious beliefs and provide

- them with a place to worship and connect with the higher self.
- vii. To ensure better patient experience, a dedicated breast-feeding room on the ground floor has been marked, next to the radiology reporting room.

### b. Service improvement:

- i. Drs Assessment Protocol in Daycare Medical Oncology Unit
- ii. VTE monitoring in Surgical and Medical Patient
- iii. Patient Counselling on Chemotherapy by Nursing & clinical team
- iv. Daily Skin Monitoring Form, Eye Test and monitoring form implemented in ICU.
- v. Family Meeting Record in Bilingual format
- vi. Drug Chart revision.

### c. Challenges:

Maintaining the momentum after accreditation is the biggest challenge in the healthcare industry, which is people oriented, and attrition is an eternal factor to deal with.

### Gantt Chart -NABH Re-accreditation as per 5<sup>th</sup> Ed. Standards

s.	Activities	11/05/23	22/ <u>0</u> 5/23 31/ <u>0</u> 5/23	01/06/23 15/06/23	16/0 <u>6</u> /23 30/06/23	01/ <u>0</u> 7/23 15/ <u>0</u> 7/23	16/ <u>0</u> 7/23 30/ <u>0</u> 7/23	01/08/23	15/08/23 30/08/23	01/09/23	01/1 <u>0</u> /23 15/1 <u>0</u> /23	15/10/23 30/10/23	01/ <u>11</u> /23 30/ <u>11</u> /23	01/12/23	01/01/24	01/02/24 28/02/24
No	(Timeline)	21/05/23	31/05/23	15/06/23	30/06/23	15/07/23	30/07/23	15/08/23	30/08/23	15/09/23	15/10/23	30/10/23	30/11/23	30/12/23	30/01/24	28/02/24
01	Registration in new portal of NABH & Gap - Analysis															
02	Presentation of the Report & Sensitization															
03	Desktop review by NABH Assessor															
04	Implementation of 5 <sup>th</sup> Ed. changes															
05	Training as per Training Schedule															
06	Monitoring & Mock Drills															
07	Internal Audit															
08	Onsite Assessment															
09	NC Closure - Cycle I															
10	NC Closure - Cycle II															
11	Completion of Assessment and grant of Certificate															

# 3. Activity Overview

- a. NABH Re-accreditation Gantt Chart with timelines of activities:
- b. Committee Meetings held in 2023:

s. No	Committee	Chairperson	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
01	Hospital Safety & Environment committee	Dr. Alok Swain					23 <sup>rd</sup> May	27 <sup>th</sup> Jun	25 <sup>th</sup> July	22 <sup>nd</sup> Aug	26 <sup>th</sup> Sep	31 <sup>ડા</sup> Oct	17 <sup>th</sup> Nov	26 <sup>th</sup> Dec
02	Patient Safety & Quality Improvement Committee	Dr. Bhawna Sirohi		24 <sup>th</sup> Feb		2 <sup>nd</sup> (	May	11 <sup>th</sup> Ju						2024
03	Clinical Audit & risk management Committee	Dr. Alok Swain						20 <sup>th</sup> Jun	18 <sup>th</sup> Jul			17 <sup>th</sup> Oct		19 <sup>th</sup> Dec
04	Grievance Committee: ICC/ POSH	Dr. Alok Swain and Dr. Shrestha Tiwari	SOS	SOS	SOS	SOS	SOS	SOS	SOS	SOS	SOS	SOS	SOS	sos
05	Code Blue Committee	Dr. Alok Swain												
06	Drug & Therapeutic committee	Dr. Alok Swain					12 <sup>th</sup> May			14 <sup>th</sup> Sep				
07	HICC	Dr. Shrestha Tiwari	20 <sup>th</sup> Jan		14 <sup>th</sup> Mar									21 <sup>st</sup> Dec
08	Mortality & Morbidity Committee	Dr. Bhawna Sirohi			4 <sup>th</sup> & 11 <sup>th</sup> Mar	14 <sup>th</sup> & 21 <sup>st</sup> Apr								22 <sup>nd</sup> Dec
09	Man-Com & Ex-Co committee	Dr. Bhawna Sirohi												
10	Medical Records Review Committee	Dr. Neelesh Jain			3 <sup>rd</sup> Mar		21 <sup>st</sup> Jun			20 <sup>th</sup> Sep	p 20 <sup>th</sup> Dec			
11	Purchase & Condemnation	Dr. Alok Swain		24 <sup>th</sup> Feb			17 <sup>th</sup> May			15 <sup>th</sup> Sep			27 <sup>th</sup> Dec	
12	Blood Transfusion	Dr. Neelesh Jain	24 <sup>th</sup> Jan				30 <sup>th</sup> May							15 <sup>th</sup> Dec
13	Credential & Privileging Committee	Dr. Bhawna Sirohi												15 <sup>th</sup> Dec
14	ОТ	Dr. Mou Roy			10 <sup>th</sup> Mar									
15	Information System	Mr. Arunava Banerjee						9 <sup>th</sup> Jun			8 <sup>th</sup> Sep		10 <sup>th</sup> Nov	
16	Radiation Safety	Dr. Gourav Gupta					10 <sup>th</sup> May							8 <sup>th</sup> Dec
17	Clinico-Radio-Patholog ical Correlation Committee	Dr. Sandeep Ojha						24 <sup>th</sup> Jun	Committee merged with Tumor Board					
18	Chemo Safety Committee	Dr. Bhawna Sirohi					30 <sup>th</sup> Jun			29 <sup>th</sup> Sep				29 <sup>th</sup> Dec

### b. Mock Drills Conducted in 2023:

s. No	KPI/ Quality Indicator	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
01	No. of Code Blue Deviations		2				3			4			2
02	Date of Mock Code Blue conducted		12 <sup>th</sup> Feb				06 <sup>th</sup> Jun			18 <sup>th</sup> Sep			12 <sup>th</sup> Dec
03	No. of Code Red Variations			3				3				3	
04	Date of Mock Code Red conducted			17 <sup>th</sup> Mar				10 <sup>th</sup> Jul				27 <sup>th</sup> Nov	
05	No. of Code Yellow Variations				2							1	
06	Date of Mock Code Yellow conducted	2			24 <sup>th</sup> Apr							24 <sup>th</sup> Nov	
07	No. of Code pink Variations	24 <sup>th</sup> Jan										1	
08	Date of Mock Code pink conducted											19 <sup>th</sup> Nov	
09	No. of Code purple Variations			1							2	1	
10	Date of Mock Code purple conducted			18 <sup>th</sup> Mar							10 <sup>th</sup> Oct	23 <sup>rd</sup> Nov	
11	No of Variations in Code Brown		5			4							
12	Date of Mock code brown conducted		12 <sup>th</sup> Feb			5 <sup>th</sup> May							
13	No. of Variation in Code Orange								0				
14	Date of Mock Code Orange conducted								19 <sup>th</sup> Aug				
15	No. of Variations												2
16	Date of Mock Code grey conducted												22 <sup>nd</sup> Dec

# c. Record of Training and Subsequent attendance:

NABH S	NABH Sensitization		on Control		y & Emergency	Basic Life Support		
Date	Attendance	Date	Attendance	(	Codes	Date	Attendance	
17 <sup>th</sup> Jul	26	19 <sup>th</sup> Jul	46	Date	Attendance	29 <sup>th</sup> Jul	75	
24 <sup>th</sup> Jul	19	26 <sup>th</sup> Jul	13	21 <sup>st</sup> Jul	38	30 <sup>th</sup> Jul	17	
1 <sup>st</sup> Aug	40	2 <sup>nd</sup> Aug	34	21 <sup>st</sup> Jul	52	31 <sup>st</sup> Jul	34	
8 <sup>th</sup> Aug	31	9 <sup>th</sup> Aug	39	28 <sup>th</sup> Jul	66	5 <sup>th</sup> Aug	12	
17 <sup>th</sup> Aug	27	16 <sup>th</sup> Aug	12	28 <sup>th</sup> Jul	37	7 <sup>th</sup> Aug	21	
		23 <sup>rd</sup> Aug	15	4 <sup>th</sup> Aug	29	12 <sup>th</sup> Aug	25	
		29 <sup>th</sup> Aug	10	11 <sup>th</sup> Aug	35	13 <sup>th</sup> Aug	16	
				18 <sup>th</sup> Aug	39	19 <sup>th</sup> Aug	30	
						21 <sup>st</sup> Aug	23	
						25 <sup>th</sup> Aug	21	
						26 <sup>th</sup> Aug	23	

### d. Clinical Audits

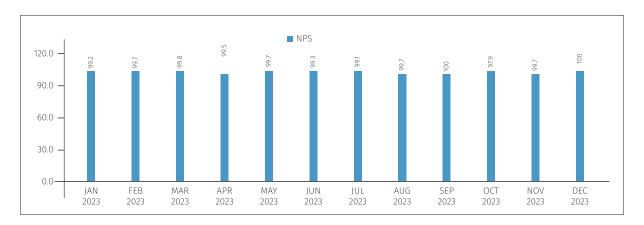
The Clinical Audit committee in BMC, chaired by the Medical Superintendent had representation by

various clinical teams who have presented following audits in 2023:

SN	Department	Departmental Audit (For NABH)	Team Leader	Status/Remarks
1	Clinical Microbiology & HIC	An audit of critical result communication in Microbiology.	Dr. Shrestha Tiwari	Final Report Presented in Meeting 16 <sup>th</sup> October 2023.
2	Clinical Microbiology & HIC	Surveillance cultures in allogenic bone marrow transplant recipients.	Dr. Dibyendu De	Final Report Presented in Meeting 16 <sup>th</sup> October 2023.
3	Radiation Oncology	Analysis of factors responsible for incomplete radiation treatment for FY2022.	Dr. Gourav Gupta	Final Report Presented in Meeting 16 <sup>th</sup> October 2023.
4	Histopathology	Molecular classification of breast cancer based on IHC, in a tertiary care centre in Chhattisgarh	Dr. Sandeep Ojha	Final Report Presented in Meeting 16 <sup>th</sup> October 2023.
5	Radiology	Radio-pathological correlation in Head & Neck cancer with special mention of N3b status on Radiology	Dr. Shishir Agrawal	Final Report Presented in Meeting 16 <sup>th</sup> October 2023.
6	Transfusion Medicine	Reduction in sickle cell percentage post erythrocytapheresis in the management of sickle cell disease	Dr. Neelesh Jain	Final Report Presented in Meeting 16 <sup>th</sup> October 2023.
7	Surgical Oncology	Evaluation of Microvascular surgery success rate in a tertiary care setup	Dr. Dipmalya Chatterjee	Final Report Presented in Meeting 16 <sup>th</sup> October 2023.
8	Medical Oncology	Chemotherapy for breast cancer in medical oncology OPD – snap shot view in June 2023.	Dr. Fen Saj	Final Report Presented in Meeting 16 <sup>th</sup> October 2023.

100

- 4. Patient care feedback and involvement:
- a. Net Promoter Score of BMC



Total Feedback Received – 6279, Outpatient – 2741, Inpatient – 3538

On a scale of 0 to 10, 5500 patients gave highest 10 rating and 751 patients gave 9 rating to BMC on its services and agreed to promote us while 6 patients were highly dissatisfied, and 22 patients continued to remain indecisive about BMCs services.

### b. 4th Annual Culture of Safety Survey Report:

Each year, BMC conducts surveys on patient safety and seeks feedback from its employees on their view

about the organization's initiatives and effort ensuring a safe environment of care.

### Objective of the Survey:

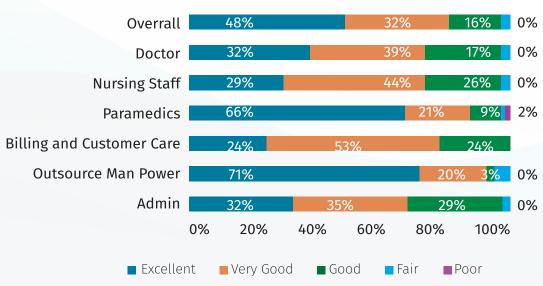
- To increase the Patient Safety of Balco Medical Centre
- · To raise staff awareness about patient safety
- · To assess the status of patient safety culture
- To evaluate the cultural of BMC and its impact on patient safety initiatives and interventions
- To conduct comparisons within and across departments in the institute

### Segment wise Departments V/s Response Rate:

Staff Rating on Patient Safety – On a scale of 0-5 with



#### Overall Response Rate - 71.25%



### Staff Opinion about Patient Safety:

More than 80% have a positive response

on BMC overall patient safety.

#### 9. Educational activities

g. Meetings attended/ organized by members of

DMG for giving lectures/ continuing professional development – National

Name of DMG member	Name of conference / CME/ Lecture / seminar / workshop and venue	Dates	Organizing body	*Participation as
Shubhangi Chandrakar	9 <sup>th</sup> International Patient Safety Conference, Taj Palace, New Delhi, India.	13 <sup>th</sup> 7 14 <sup>th</sup> Feb'2023	Apollo Hospitals	Paper Presentation on " A comparative study of Annual Survey on Patient Safety Culture in BALCO Medical Centre, conducted in the year 2021 & 2022 about staff perception of safety initiatives and feedback mechanism

### h. Achievements of members:

i. Books/chapters in academic texts:Research Trends in Commerce & Management, ISBN:978-81-19477-20-3, Published a chapter on "A

comparative study of annual survey on patient safety culture at BALCO Medical Centre in the year 2021-2022"



Members: Dr. Neelesh Jain and Mr. Shashank Vishwanathan



One key aspect of BMC's research efforts is the creation of the Institutional Ethics Committee. This committee, made up of experts from various fields, makes sure that all research activities follows strict

ethical guidelines. This ensures the safety and well-being of everyone involved, showing the hospital's commitment to responsible and ethical research practices.

At BALCO Medical Centre, our Institutional Review Board ensures that all our activities meet ethical standards. Led by Dr. Prachi Patil from Tata Memorial Hospital, Mumbai, and Dr. Neelesh Jain, the board includes experts from different fields. Members like Dr. Sumit Jain and Dr. Sandeep Ojha bring scientific expertise, while Dr. Subhendu Mishra, Dr. Sonal Asthana, and Dr. Deepak Dabkara offer clinical insight.

Social scientists Dr. Varun Kumar Sahu and Dr. Gaurav Kapoor, along with legal experts Dr. Pyali Chatterjee and Dr. Rana Navneet Roy, provide valuable perspectives. Ms. Neeti Jain represents community interests, and Mr. Shashank Viswanathan adds scientific knowledge.

Since its first meeting on December 18, 2023, the committee has been dedicated to ethical excellence. It regularly meets to review research projects and maintains open communication with researchers,

ensuring ethical integrity in all our activities.

We are thrilled to announce that the department has received the first-ever Cancer Grand Challenge award in India, a prestigious grant from Cancer Research UK and the National Institute of Health, USA. This funding will support groundbreaking research on colorectal cancer for the next 5 years. Our goal is to uncover new ways to detect, treat, and prevent this disease.

Looking ahead, the department plans to establish a modern research unit focused on molecular biology, genomics, and personalized medicine. This facility will be a leading center for research in central India, bringing together experts from different fields to study diseases and develop targeted treatments. The aim is to use advanced technology and collaboration to find better ways to treat illnesses and improve patient care.



### An Initiative by







### Accreditations

- → National Accreditation Board for Hospitals & Healthcare Providers (NABH)
- ⇒ National Accreditation Board for Testing and Calibration Laboratories (NABL)
- ⇒ NABH Nursing Excellence Certification
- ⇒ LEED (Leadership in Energy and Environmental Design) Certified Building
- ⇒ Consortium of Accredited Healthcare Organizations (CAHO)
- ⇒ Eat Right Campus Certified by FSSAI (Food Safety and Standards Authority of India)

### **Awards and Recognitions**

- ⇒ 1<sup>st</sup> Prize from the Ministry of Health and Family Welfare of India for the Implementation of Best Healthcare Practices
- ⇒ Gem of Chhattisgarh Award by Zee MPCG
- ⇒ Shurveer Samman by News18 MPCG
- ⇒ Business Achievers Award by News18 MPCG
- ⇒ Dhanwantari Award by IBC24 MPCG
- ⇒ Rise Chhattisgarh Chapter Recognition by Zee MPCG
- ⇒ SABERA Initiative Award for Health, Nutrition and Wellbeing
- ⇒ CSR Journal Excellence Award for 'Excellence in Patient Service Delivery'
- ⇒ IHW Council Digital Health Award for Best Adaptation to Digital Health Technology
- ⇒ Chief Minister's Award for Excellence in Healthcare Services Odisha

