The Bhopal Memorial Hospital and Research Centre (BMHRC) and its Outreach Health Centres were started with a mission to provide free health care to those affected by the Bhopal Gas tragedy, and to provide affordable healthcare to the public at large. The hospital was started in 2000, while services at the outreach centres were initiated in 1998. Healthcare services have been continuously provided since then to the victims of the gas disaster, their dependents, and to the public at large. Beneficiaries of the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) have also received free in-patient services. This scheme provides free access to health insurance coverage for low income earners in the country.

CLINICAL WORK
- Clinical work at BMHRC involves treatment of patients in the out-patient department (OPD), investigations (Pathology, Radiology and Microbiology), procedures and surgeries, in-patient department (IPD) care and rehabilitation. 17 specialties are present at the main hospital.
- OPDs are run at the eight Health Centres 6 days a week, Radiological and Pathological investigation are done here too.
- The clinical work at BMHRC and its 8 Health Centres continued during the whole year (2020-2021) in spite of the ongoing COVID-19 pandemic. However, because of inability of patients to come during the lockdown and stoppage of public transport services, the overall admission /attendance were affected.

PATIENT DATA
- The OPD footfall in the hospital and health centers in the year 2020-21 was approximately 32,000 per month.
- Inpatients in the year 2020-2021 were approximately 400 per month.
- Nearly 4.5 lakh patients and their children are registered at BMHRC and its 8 health centres for health care. Free health care services are provided to all registered gas victims and their children/dependents. The doctors, nurses, paramedical staff and all employees of BMHRC (hospital and health centres) have worked continuously during this period in spite of the pandemic to provide timely and excellent health services to the patients.
- Total number of patient visits in BMHRC in the period April 2020 to March 2021 was 3,78,562.
- Total number of diagnostic investigations done in this period are 3,95,810 (radiology, microbiology, pathology and biochemistry). In addition, there were approximately two lakh COVID-19 tests (RT-PCR, Rapid Antigen tests and Cartridge-based Nucleic Acid Amplification Tests) carried out during this period at BMHRC, Bhopal.
- 872 COVID suspects /cases were admitted and provided treatment in the COVID-19 isolation facility.
TEACHING/TRAINING ACTIVITIES AT BMHRC, BHOPAL

- DNB Ophthalmology has been initiated at BMHRC, Bhopal and one student has joined this course in September, 2020.
- Permission received to start MD Anaesthesia course. Intake of students for the course will be through NEET-PG, which has been postponed due to the COVID-19 pandemic.
- Teaching activities have continued online in both Bhopal Nursing College and Paramedical Institute of BMHRC. Regular online tests and examinations have also been conducted during this period.

The Bhopal College of Nursing conducts the following courses

- Post Basic BSc Nursing
- B.Sc. Nursing
- M.Sc. Nursing

Admissions were taken into Post Basic B.Sc Nursing and M.Sc. Nursing in 2020-21. Total number of admissions in the year was 37.

The Paramedical Institute at BMHRC conducts the following Diploma Courses

- Diploma in Anesthesia Technician
- Diploma in Blood Transfusion Medicine
- Diploma in Dialysis Technician
- Diploma in Cath Lab Technician
- Diploma in Medical Lab Technician
- Diploma in Optometry & Refraction Technician
- Diploma in Perfusion Technician
- Diploma in X-Ray & Radiographer Technician

55 new admissions were taken in the year 2020 into the various courses. Currently there are 120 students pursuing their paramedical courses in the institute.

Training / Internship conducted during the period 1\textsuperscript{st} April 2020 to 31\textsuperscript{st} March 2021

Clinical Training / Internship

- Clinical training was imparted from local medical colleges in the last year (2020-2021) to one student in Medicine, one student in Anesthesia and two students in Cardiovascular surgery.
- Five students of Psychology did internship in the department of Psychiatry during this period.
- Training was also imparted in Dietetics to one student for six months.
- Eleven students did internship with training in Physiotherapy under the department of neurosurgery.

Training conducted by NRL, BMHRC, Bhopal

- Virtual Sensitization program was conducted by NRL, BMHRC along with NTI Bangalore on “CBNAAT EQA Phase IV Implementation in Goa” on 17\textsuperscript{th} August 2020.
- Virtual Sensitization program was conducted by NRL, BMHRC along with NTI Bangalore on “CBNAAT EQA Phase IV Implementation in Chhattisgarh from 18\textsuperscript{th} to 20\textsuperscript{th} August 2020.
- Virtual training for IRL Bhopal and IRL Indore was conducted on “TB diagnosis and detection of Rifampicin resistance by TrueNat” on 11\textsuperscript{th} January 2020.
- A virtual training for IRL Chhattisgarh was conducted on “TB diagnosis and detection of Rifampicin resistance by TrueNat” on 15\textsuperscript{th} January 2021.
• Virtual training for IRL, Goa was conducted on “TB diagnosis and detection of Rifampicin resistance by TrueNat” on 27th January 2021.

• A virtual training for IRL Itki, Ranchi, was conducted on “TB diagnosis and detection of Rifampicin resistance by TrueNat” on 29th January 2021.

• Onsite training on SL-LCDST at IRL Goa was conducted on 16th March 2021.

Trainings attended by NRL, BMHRC Staff
• Virtual training on LCDST for Newer Drugs conducted by NIRT Chennai 07th January 2021.

• Training for master Trainers on “TB diagnosis and detection of Rifampicin resistance by TrueNat” conducted by CTD on 8th January 2021.

• Virtual training on LIMS- Logistics module conducted by CTD with FIND on 20th January 2021.

NACO (Integrated Counselling and Testing Centre)
• Training and support visits: 35

Blood Safety Training for the Blood Bank Medical Officers and Lab Technicians was conducted by the Department of Transfusion Medicine in 2020-21 for
• Medical Officers (Non BCSU): 24
• Medical Officers (BCSU): 07
• Lab Technicians (BCSU and Non BCSU): 70

Training in Research
• Short-term training in Research was imparted to two students, three students attended summer internship/training in Research.

• Eight students went through project training in the year 2020 - 2021.

OTHER EVENTS AT THE INSTITUTE DURING THE PERIOD APRIL, 2020 TO MARCH, 2021
Hospital-associated Infection Control activity
The Hospital-associated Infection Control committee was formed during this COVID-19 pandemic period and trained the entire BMHRC employees (both permanent and temporary) on infection control measures. All trainings were done following COVID-19 guidelines and an under-taking was signed by all employees to follow COVID-19 norms.
- Bhopal Nursing College conducted an e-poster competition on the 21\textsuperscript{st} of June on the theme “Yoga at home and Yoga with family” and “Yoga converting COVID crisis into an opportunity”.
- Vigilance Awareness Week was observed from 27\textsuperscript{th} October to 2\textsuperscript{nd} November, 2020. The vigilance pledge was taken taking social distancing measures online by the Director and all BMHRC employees. Also, Poster and Slogan competitions were held during this period.

\[ \text{Vigilance Awareness Week} \]

- A guest lecture on the “Insights of Gender Inequality” was delivered by Ms. Deepika Suri, IG (Crime against women), followed by a lecture for “bringing remote issue of gender sensitivity in broad daylight” by Prof. Prabha Desikan, Director, BMHRC, Bhopal, during the training program for BMHRC faculty on the 12\textsuperscript{th} December, 2020.
Voluntary Blood Donation Camp during Pandemic by the department of Transfusion Medicine:

- In spite of the COVID-19 pandemic, blood and its components have been provided to all needy patients. Twenty-four hours blood donation camps as per new guidelines of NBTC were done in the year 2020-2021.

Blood Safety Training Programs in the year 2020-21

**Swachhta Workshops organized at Health Centres**

- Swachhta awareness programs were also conducted in the nearby localities with frequent visits and demonstration of various hygienic practices.
- Cleaning and beautification of surrounding areas, tree plantation, disposal of unserviceable items and broken furniture was done by staff.

**Major IEC approved Projects undertaken in BMHRC, Bhopal during the period from April 2020 to March 2021.**

1. Evaluation of the operational feasibility and performance of ‘TB Detect’ and TB Concentration & Transport and ‘TB DNA Extraction’ kits in field settings under the National Tuberculosis Elimination Program.
2. Molecular characterization of *carbapenemase* resistant Gram-negative bacilli at a tertiary care hospital in Central India.
3. *Amaranthus tricolor* formulation is a nutraceutical and can serve as an immune-modulator against COVID-19 infection—an in vitro mechanistic study.
4. Identification and evaluation of a biomarker panel for early detection of pancreatic ductal adenocarcinoma and to assess whether a common etiopathology increases the risk in diabetes mellitus patients.
5. Can the combination of Temozolomide and Curcumin inhibit autophagy in Glioblastoma? A pilot study.
7. Assessment of Phyto – macromolecules for potentiating the action of antibiotics to combat Sepsis and upsurge Wound healing.
11. To study the prevalence of diabetic retinopathy in diabetes mellitus patients and its correlation with various associated risk factors: Descriptive Cross- Sectional Study.
12. Evaluation of a new biomarker panel to identify high risk group for type 2 DM and its related complications: a clinical approach to validate the glycemic memory theory.
15. Deciphering the epigenetic signature of glioma: prognostic relevance in tumor recurrence.
16. Quality assurance of biodosimetry, capacity building and establishment of baseline for cytogenetic parameters.

**Publications in journals of National and International repute**


**BUDGET ALLOCATION**

The following are details pertaining to Budget Allocation 2020-21, funds released/utilized from the period April 2020 to March 2021.

<table>
<thead>
<tr>
<th>Budget Head</th>
<th>Funds Allocated</th>
<th>Fund Utilized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grant in Aid-Salary</td>
<td>92.50</td>
<td>92.45</td>
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<tr>
<td>Grant in Aid - General</td>
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<td>25.51</td>
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<tr>
<td>Grant for creation of Capital Assets</td>
<td>2.04</td>
<td>1.95</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>122.69</strong></td>
<td><strong>119.91</strong></td>
</tr>
</tbody>
</table>

**FUTURE PLANS**

- Medical Post Graduate courses to be started in various departments of BMHRC, Bhopal.
- Development of a dedicated Isolation facility for airborne infectious diseases.
- Design of New Research projects.
- Publication in Journals of National and International repute.