

CHIRAYU MEDICAL COLLEGE & HOSPITAL, BHOPAL (M.P.)

NABH Accredited Hospital since 04.06.2015

NABL Accredited Central Laboratory since 29.12.2013

ISO Certified Hospital since 14.12.2012

INFRASTRUCTURE

Chirayu Medical College & Hospital, is a teaching hospital commissioned in July 2010 as per guidelines of Medical Council of India. There are 810 teaching beds and 180 other beds including Central Casualty beds (36), ICU beds (72), Pre-operative & Post-operative beds (20), Gynae Labour complex beds (10), isolation Beds(10) and Private Ward (32). The hospital has 10 numbers of well equipped operation theaters with CCTV, Dialysis, Blood & Component Bank, High-tech Central laboratory, MRI and CT scan facility and all support services with round the clock maintenance by trained staff.

The hospital building, adjacent to the college is fully constructed, having ground + 5 floors. The total constructed area of the hospital 41860.34 sq. m., supported by residential 12119.32 sq.m. & service block 3083.86 sq. m. The operation theater block, labour complex, all ICU's, dialysis unit, central laboratories, emergency resuscitation ward and O.T. are fully air conditioned.. The Hospital and College building are having 100% power backup of DG sets (500 KVA x 4 Nos). The hospital has provided 5 numbers of patient lifts supported by a ramp & stair cases along with Fire-fighting system. The hospital has in-house Pharmacy, Canteen, Automated laundry, Workshop and CSSD section. The waste management systems are as per State Pollution Control Board guidelines. Clean drinking water is provided through water coolers and aqua guards on all floors/sections of the Hospital.

1. Central Registration and Enquiry:

Outpatient and inpatient registration is fully computerized and connected with various sections of hospital and MRD. The services are available round the clock supported by trained staff. There are counters for Male (2) Female (1) Senior Citizen & disabled (1) IPD (1) and Billing counters.

2. Central Casualty Services:

The casualty services are under the control of Chief Casualty Medical Officer supported by 5 CMOs on round the clock duties. There are 36 beds available.

The central gas pipeline system is available for oxygen, suction and ventilation alongwith – multipara monitors, defibrillator, infusion pumps, pulse oxymeter and ECG facilities. The treatment wards are fully equipped with emergency trolleys with all types of medicines and facilities for intubation. One mobile X-ray unit is available and the Radiodignosis Deptt is nearby. The average attendance is 45-50 patients per day.

No of Beds: Required : 25 Available : 31

- Number of doctors posted / Shift : **01 / 01**
- CMO - Required : 04 Available : **05**
- Number of nurses posted / Shift: **03 / 01**
- Separate casualty for OBGY cases: **Yes available, if yes No. of beds – 05**

Equipment	Availability Y/N	Number
Central Oxygen & suction facility	Yes	On each bed
Pulse oximeter	Yes	16
Ambu bag	Yes	06
Disaster trolley	Yes	02
Crash Cart	Yes	03
Emergency Drug Tray	Yes	06
Defibrillator	Yes	02
Ventilator	Yes	02
X-ray Unit – (Mobile)	Yes	01
Minor OT	Yes	01

3. Out Patient Services (OPD):

The OPD area is housed in independent department blocks at Ground and First Floor. Each OPD is developed as per the requirements laid down by Medical Council of India. Each OPD has examination rooms, minor OT's, Demonstration rooms, equipment rooms, plaster room etc. as per subject-wise requirement. All the section are well equipped and functional. There are well equipped minor operation rooms in the OPD's of General Surgery, Orthopedics, ENT, Ophthalmology & Emergency. Daily average of minor operations is 50-55. The OPD is open from 9:00 am to 5:00 pm. The registration is computerized and linked with medical record department as well as each OPD sections.

Average OPD attendance is 1300 per day

Teaching and other facilities :

OPD Timings	09:00 A.M. to 05:00 P.M.
Separate Registration areas for male/female patients available	Yes
Separate Registration counters for OPD/IPD	Available
Are the Registration counters computerized	Yes
Staff for registration center	Adequate
Waiting areas for above patients available	Yes

No. of rooms for examination of patients available	Yes, 4 in each Department
Capacity of teaching area in each department	Yes
Enquiry Desk	Yes

Facilities available in OPD

Medicine Injection room - Male - Female	Yes Yes	E.C.G. Room	Yes
Surgery Dressing room - - Male - Female	Yes Yes	Minor OT	Yes
Orthopaedics Plaster room Dressing room - - Male - Female	Yes Yes Yes	Plaster cutting room	Yes
Ophthalmology	Refraction Rooms Dark Rooms Dressing Rooms / Minor Procedure Room		Yes Yes Yes
ENT	Audiometry (AC & Sound proof) Speech Therapy		Yes Yes
Pediatrics	Child Welfare Clinic Immunisation Clinic Child Rehabilitation Clinic		Yes Yes Yes
OBS & GYN	Antenatal Clinic Sterility Clinic Family Welfare Clinic Cancer Detection Clinic		Yes Yes Yes Yes

Comments : 8 Nos. of Minor O.T. are available in OPD of Surgery, Eye, ENT, Orthopedics, Emergency, Obst. & Gynae, Dermatology and Dentistry.

4. **In-patient Services:**

There are 810 teaching beds and 180 other beds. The IPD faculties including General Wards (810 beds), Special Wards (32 beds), ICUs (72 beds) Pre and Post Operative (20 beds) and Casualty (36 beds).

Teaching beds are located in Wards, each of which is having 30 beds alongwith Nursing Station, Linen Room, Treatment Room, Doctors Duty Rooms, Student Duty Rooms, Demonstration Rooms, Pantry & CU/DU. All Sections of the wards are well equipped and supported by Waste management system, Kitchen and Laundry Services. Each ward is

connected by EPBX system and computers are also available. The oxygen supply is maintained by pipe line system and cylinders on trolley. The ward services are managed by Nurses, Technical and other support staff round the clock. The average bed occupancy is 80-85%. For bedside teaching, each department has attached demonstration room equipped with teaching aids like OHP, Screen Blackboard etc.

Seminar rooms and library are available in the Faculty Blocks which are self contained. Office rooms for HOD's and other faculty members are located near the wards.

Hospital has provided an air conditioned and well equipped common seminar hall for organizing weekly CMEs and other teaching activities. There is a very well constructed mini-auditorium-cum lecture hall on the 5th floor having 380 seats with state of the art audio-video facilities and central air conditioning. This is connected to OTs for providing live surgery for teaching, workshops and conferences.

Department	Ward Nos.	Beds Required	Total Beds Available	Facilities Available in Each Ward					
				Nursing Station Y/N	Exam/Treat Room Y/N	Pantry Y/N	Store Room Y/N	Duty Room Y/N	Demo Room (25 Capacity) Y/N
Gen. Medicine	05	150	150	Y	Y	Y	Y	Y	Y
Pediatrics	03	90	90	Y	Y	Y	Y	Y	Y
TB & Respiratory Medicine	01	40	40	Y	Y	Y	Y	Y	Y
Psychiatry	01	40	40	Y	Y	Y	Y	Y	Y
Dermatology	01	40	40	Y	Y	Y	Y	Y	Y
Gen. Surgery	05	150	150	Y	Y	Y	Y	Y	Y
Orthopedics	03	90	90	Y	Y	Y	Y	Y	Y
Ophthalmology	01	40	40	Y	Y	Y	Y	Y	Y
ENT	01	40	40	Y	Y	Y	Y	Y	Y
OB & GYN	03	90	90	Y	Y	Y	Y	Y	Y
Radio Therapy	01	40	40	Y	Y	Y	Y	Y	Y
Total	25	810	810						

Intensive Care: Following intensive areas are available -

Type	Beds (Required)	Beds (Available)	AC Y/N	Central Oxygen/Suction Y/N	Major Equipment (Monitor, Ventilator, ABG, Pulse Oximeter etc.) Y/N
ICCU	5	6	Y	Y	Y
ICU	5	12	Y	Y	Y
SICU	5	12	Y	Y	Y
NICU/PICU	5/5	6/10	Y	Y	Y

Others:

- | | |
|---------------------------------|---|
| a. Burn ICU | 4 |
| b. Dialysis ICU | 7 |
| c. Respiratory ICU | 5 |
| d. Obst & Gyne ICU | 5 |
| e. Kidney Transplant Unit (KTU) | 1 |
| f. New Born Nursery | 4 |

All ICU's has Central Gas pipe line supply, monitors, infusion pumps, defibrillators, pulse oxygen meters, on bed x-ray and cardiac colour Doppler Echo systems.

Labour Room

Rooms	Beds
Clean Cases	3
Septic Cases	2
Eclampsia	2

Endoscope Unit:

The unit is equipped with Upper GI and Lower GI Video Endoscopy System. A bronchoscope video endoscopy system is also available for Adult & Paediatric patients. Fiber-Optic Flexible Video Endoscope, Flexible Laryngoscope & Sinus Endoscope are available in ENT Department. Surgical & Gyne Video Endoscope for Diagnostic & Therapeutic Applications are also available. The TB Chest Unit has got Video Bronchoscope, Video Thoracoscope.

Dialysis Unit:

Seven bedded dialysis unit is having 3 clean beds and 4 beds for infected patients. Each bed is having multi-para Monitor, Central Gas Supply with well equipped emergency trolleys.

5. Technical Support Services:

- 5.1 Radio diagnosis
- 5.2 Central Laboratory
- 5.3 Operation Theater
- 5.4 Labour complex
- 5.5 Blood Bank and Component Services
- 5.6 CSSD
- 5.7 Central Gas Supply Unit

5.1 Radio-Diagnosis Department:

The Department is located on Ground Floor in the vicinity of Casuality. The various sections are constructed as per AERB requirements. All the X-ray installation are registered in e-lora under AERB.

a. **Equipments:**

- i) MRI 1.5 Tesla capable of performing MR angio, MR veno, MR Perfusion, MR Spectrography and diffusion weighted imaging.
- ii) 16 Slice CT Scanner & Dual Slice CT Scanner– for acquiring volumetric CT data, and capacity to perform advanced imaging techniques like 3D reformations Perfusion CT, ‘Cranial and abdominal CT angiography’.
- iii) Mammography- for detection of breast cancer at early stage. It is fully compatible with digital stereotactic biopsy device to perform FNA, FNL and Core biopsy.
- iv) Radiography – There are fixed X-ray machines 800 mA Digital X-Ray with IITV, 800 mA X-Ray Machine with DR System, 600 mA X-Ray, 600 mA X-Ray with IITV. 300 mA x 2, and six mobile X-ray machines are also available. Radiation protection services are available as per AERB guidelines.
- v) Ultra Sonography and Colour Doppler- There are Three high quality ultrasound with Colour Doppler machine and one portable USG Machine. One USG machine is also available in addition to Colour Doppler.
- vi) DSA, Philips model FD10 is also available.
- vii) PET CT

CR System – all radiographic procedure are printed by CR system to provide quality hard prints for better reporting by qualified professor & faculty members.

5.2 **Central Laboratories** – Central laboratories are located on the first floor of hospital building, just above the casualty Department. Center Lab has following sections:

- i) **Biochemistry Lab-** Fully automated lab with random access biochemistry analysis, semi-autoclave analysis, Elisa reader, Electrolyte analyzer.
- ii) **Microbiology Lab-** The laboratory has Bacteriology, Serology, Immunology, Mycology, Parasitology, Mycobacteriology and Virology sections which are well equipped for routine diagnosis and research work. Species level identification and antibiotic susceptibility testing is done for both aerobic and anaerobic organisms as also fungi. Laboratory is equipped with Class IIB biosafety cabinets, Vitek-2, BacT ALERT, Gene Xpert, Mini Vidas, ELISA system, and cold centrifuge. Laboratory regularly monitors the Hospital Acquired Infections and plays an important role in infection control and bio medical waste management. Laboratory looks after ICTC & DMC activities also. EQAS program in Bacteriology, Serology, Parasitology and Mycology is in place.
- iii) **Pathology Lab-** Pathology lab has got Hematology, histopathology, Cytopathology, clinical pathology labs supported by high quality equipments. Central laboratory is NABL accredited.

Central Clinical Laboratory: Under control of department of **BIOCHEMISTRY.**

Staff & Supervision in each Laboratory : **Staff supervision of each lab is under control of respective heads of the department. However, overall**

**administrative control is under
Medical Director of the Hospital.**

- (i) Teaching Staff Number : **Pathology - 1 Faculty**
Microbiology - 1 Faculty
Biochemistry - 1 Faculty
- (ii) Non-teaching Staff Number : **57 (Fifty Seven)**

5.3 **Operation Theaters:**

There are 10 nos. of operation theaters, out of which 4 are Modular Type. The distribution is given below:

Dept	Theatres Nos.	A/C Y/N	Central Oxy/ Nitrous Oxide Y/N	Anesthesia Machine Y/N	Multipara Monitor with Capnograph Y/N	Defibrillators Y/N	Infusion Pumps Y/N
Gen Surgery	03	Y	Y	Y	Y	Y	Y
ENT	01	Y	Y	Y	Y	Y	Y
Ophthal	01	Y	Y	Y	Y	Y	Y
Ortho	01	Y	Y	Y	Y	Y	Y
OBS & GYN	02	Y	Y	Y	Y	Y	Y
Emergency	01	Y	Y	Y	Y	Y	Y
Septic	01	Y	Y	Y	Y	Y	Y

Pre-Anaesthetic/Pre-operative Beds : Available : **10**

Post Operative Recovery room beds : Available : **10**

CCTV facility is available for teaching of students in the OT block and also to Auditorium-cum-lecture hall.

The OTs are equipped with high-tech equipment namely LED O.T. lights, operation tables defibrillators, Anaesthesia equipment etc and supported by highly trained technical staff for round the clock services.

The O.T. block has attached pre-operative and post-operative wards of 10 beds each. Facilities of sterilization are available nearby in front of O.T. Block. The HOD Anaesthesia in the I/c of O.T. complex.

5.4 **Labour Complex:**

The “Labour Complex” is situated on the 2nd Floor having operation theaters, labour rooms, Eclampsia ward, antepartum and postpartum wards.

The team of surgeons is performing all kinds of operations including “endoscopic surgery” and minimal invasive surgeries.

5.5 **Blood Bank:**

The hospital has a very well equipped, fully air conditioned Blood Bank and component separation unit, licensed by the State FDA and Central Govt. The daily average of blood units is 20-25/day.

Available and functional: **Yes**

License valid up to: **02-02-2021** (LICENCE NUMBER - 28c/4/2010-02.02.2016)

Blood Separation Facility – **Available**

5.6 Central Sterilization Services Department:

The Department of Central Sterilization services is located on 3rd floor, Opposite to O.T. complex. The equipment available are horizontal HP sterilizer (2 nos.) vertical sterilization, ETO and other equipment to deliver 90-95 drums and 90-95 tray per day on average.

- Timings **24 Hours** & Shifts: **03**
- Separate receiving and distribution points - **Yes**

- (a) **Exclusive or with substerilisation centres also** : Exclusive
- (b) **Equipment scope and inservice arrangement** : Horizontal HP Sterilizer - 2
Vertical Sterilizer - 1
Ethylene Tri Oxide (ETO) Sterilizer - 1
Gauze Cutting Machine - 2
Sealing Machine - 1
- (c) **volume of work/day** : Drums : 90-95 per day
Instrument Trays : 90-95 per day
- (d) **Arrangement for sterilisation of mattresses & blankets** : Sterilization & Fumigation
- (e) Staff available in CSSD :
- Matron : **01**
 - Staff Nurses : **08**
 - Technical Assistants : **11**
 - Technicians : **10**
 - Ward boys : **08**
 - Sweepers : **04**

5.7 Central Gases Manifold Deptt.:

This section is located in the services building near the hospital for supplying suction, oxygen, nitro oxide and air to all sections of the hospital round the clock.

6. **Pharmacy:** In House

- Organization set up (a) Supervised by
Mr. Manish Singroli, B. pharma
- Staff : (b) Qualification of pharmacist Incharge :
Mr. Aditya Sankere, B. Pharma
Mr. Rakesh Sahu, B. Pharma
- (c) No. of other staff : **23**
- (d) No. of prescription dispensed a day
- (i) Wards : **439**
- (ii) O.P.D. : **935**

7. **Intercom:** Available: **Yes**

No. of incoming lines - **60** No. of extension lines - **450**

8. **Central laundry/Alternative Arrangements: In House**

It is located in the services block having Automated Water, Dryers and Press Facilities.
The average work load is 700-760 kg /day.

(a) **Equipment** : Press (2), Sewing Machine (1), Sleucing Machine (1)-30 kg

(i) **Mechanised -Bulk washing machine, Hydroextractor, Flat & Rolley Steam Press.:**
Available

(b) **Staff available** : Available

Supervisor : 03 (Manager – 01, Supervisor- 02)

Dhobi/Washermen/Women : 08

Packers : 07

9. **Kitchen/ Alternative Arrangements**

- In-House/Outsourced: **In House**
- Food free of charge: **Yes** Number of patients: **475 X 2**
- Provision of special diet: **Yes**
- Services of a nutritionist/dietician: **Available**

10. **Total no. of Canteens:** For staff : **02**, For students : **01**.

11. **Arrangements for Biomedical Waste Management.**

(a) **Outsourced:** Waste Management contract with Bhopal Incinerator Limited Waste Management company Approved by Govt. of Madhya Pradesh Agreement Dated 01st Jan 2016 Valid for period of 1 years.(31.12.2016)

12. **Nursing and Paramedical staff :**

Nursing staff:	No of Beds : 810	
Category	Required Nos.	Available Nos.
Staff Nurses	309	355
Sister Incharge	45	50
ANS	12	15
DNS	5	6
Nursing Suptd	1	1
Total	372	427

Paramedical And Non teaching staff	Required Nos.	Available Nos.
	185	414

13. **Central Workshop** – is under control of a qualified engineer. The sections are – Electrical, Electronic, Refrigeration, Mechanical and Carpentry. Well trained technicians are posted to work round the clock.

14. **Ambulance Services** – Round the clock Ambulance Services are available. One of the units is a Cardiac Ambulance.