

Kasturba Hospital was established in 1944. Mahatma Gandhi Institute of Medical Sciences was established in 1969. The hospital and the medical college are in same campus in a shared building. Both the hospital and the institute are run by Kasturba Health Society. Kasturba Hospital was awarded 88.8% score and A1 grade when the NABH tool was applied by Rajiv Gandhi Jeevandayi Arogya Yojana, in 2015.

*** Number of beds :**

A total of 934 beds are available in Kasturba hospital. The total number of beds is as follows:

S No	Type	Number	Total
1	Teaching beds <ul style="list-style-type: none"> • Medicine: 140 • Ob/Gyn: 90 • Surgery: 120 • Pediatrics & Neonatology: 60 • Orthopedics: 60 • Ophthalmology: 60 • ENT: 30 • Psychiatry: 30 • Dermatology: 30 • Neurosurgery: 10 • Radiotherapy: 30 	690	926
2	Service beds	100	
3	ICU beds (Neonatal, Pediatric, Medical, Coronary, Burns)	62	
4	Private beds	32	
5	Dr Sushila Nayar Hospital, Utawali (Melghat)	50	

*** Number of specialty services : 18**

1. Anatomy
2. Physiology
3. Biochemistry
4. Pathology
5. Pharmacology
6. Microbiology
7. Forensic Medicine and Toxicology
8. ENT
9. Ophthalmology

- 10. Community Medicine
- 11. Medicine
- 12. Surgery
- 13. Obstetrics and Gynecology
- 14. Orthopedics
- 15. Dermatology, Venereology and Leprosy
- 16. Radiology
- 17. Radiotherapy
- 18. Anesthesiology

*** Number of super-specialty services :**

1 (Neurosurgery).

The Cath lab in the Department of Medicine also provides services by trained staff

*** Number of beds in ICU / ICCU / PICU / NICU, etc.**

ICU (Medicine):	26 beds
ICCU (Medicine, cath lab):	10 beds
NICU:	10 beds
PICU:	8 beds
Surgery ICU/ Burns	8 beds

Additional beds are provided in other departments as follows:

ICU (casualty: Ortho+ ENT)	8 beds
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*** Number of operation theatres:**

The functional OTs at present are 13. They are assigned to various departments as follows:

S No	Department	No. of OTs	Grand Total
1	Surgery	3	13
2	Obstetrics and Gynecology	2	
3	ENT	2	

4	Orthopedics	2	
5	Ophthalmology	1	
6	Laparoscopy	1	
7	Pain management (Anesthesiology)	1	
8	Septic OT	1	

*** Number of Diagnostic Service Departments:**

12

1. Pathology
2. Biochemistry
3. Microbiology
4. Radiology
5. Reproductive Biology Lab
6. Neurophysiology Lab
7. Cytogenetics Lab
8. Toxicology Lab
9. Endoscopy
10. ECG and Echocardiography
11. EEG Laboratory
12. Bone Densitometry (DEXA)

*** Clinical laboratories**

3

1. Clinical Pathology
2. Clinical Biochemistry
3. Clinical Microbiology

*** Service areas viz. laundry, kitchen, CSSD, Backup power supply, AC plant, Manifold Rooms, pharmacy services:**

LAUNDRY: The hospital laundry services have been outsourced to a private firm.

KITCHEN: The hospital kitchen provides dietary services and is supervised by a dietician. In 2015-16, the kitchen served 174898 meals (normal, salt restricted, diabetic, soft and liquid diets) to indoor patients. The kitchen also served 101282 meals to nursing students and guests.

CSSD: The hospital has its own central sterile service department. The Central Sterile Services Department is responsible for the processing and sterilization of instruments and medical devices required for operations and sterile procedures in the Operating Theatres, OPDs, Wards and Radiology Department etc.

ENGINEERING SECTION: Adequate generator facility is provided 24X7 in all clinical sections of the institute. Essential equipment have power backup. Uninterrupted supply has been safeguarded for 24 hours. Central cooling arrangements are available in the OT complex and ICUs. At other places AC or air cooling facility is provided as per requirements.

MANIFOLD ROOM: For oxygen cylinders

PHARMACY SERVICES: Two 24 x 7 pharmacies are available in the hospital which sell drugs at highly subsidized prices. They are manned by trained pharmacists. The pharmacy is licensed by FDA. The medicines are stored as per FDA recommendations. Sound inventory control practices are followed. All stock records are electronically maintained. Medicines which are lookalike and sound alike (LASA drugs) are stored separately in the medicine stores. Temperature of the refrigerators is recorded twice a day i.e in morning and in evening We have introduced computerized prescriber order entry (CPOE) to prescribe drugs.

More details are provided below in the separate section on Pharmacy Services.

*** Blood Bank services:**

Kasturba Blood Bank started functioning in the year 1970. In the year 1978 it was upgraded to the Regional Transfusion centre by the State Blood Transfusion Council (SBTC). It was one of the 8 blood banks in Maharashtra selected by NACO for assistance. The Component Unit was started in the year 2007.

The Blood Bank meets all requirements of whole blood and blood components for the entire hospital. All collections are voluntary and there is in-house facility of screening blood for five transfusion transmittable infections. The blood bank offers free services to patients of thalassemia.

Policy:

- To ensure easily accessible and adequate supply of safe and quality blood and blood components collected / procured from voluntary donors in well-equipped premises, which is free from transfusion transmitted infections and is stored and transported under optimum conditions.
- Transfusion under supervision of trained personnel for all who need it irrespective of their economic or social status through comprehensive, efficient and a total quality management approach.

The blood bank data for the last five years is as follows:

Investigations	2011-12	2012-13	2013-14	2014-15	2015-16
Blood grouping and Rh typing					
In patients	17345 x 2	15172 x 2	12665 x 2	14441 x 2	13814 x 2
In donors	6738 x 2	6635 x 2	6343 x 2	6426 x 2	6627 x 2

	Subgrouping A1 and A2	1683	1697	1610	1551	1710
	Blood bags collected	6738	6635	6342	6426	6627
	Total screening tests	33704	32789	31794	32492	39654
Total units issued						
	Whole blood	5700	5335	5267	5011	5310
	Packed red cells	776	1065	1078	1194	1000
	Platelet concentrate	622	478	397	622	459
	Fresh Frozen Plasma	780	1035	1119	851	1130
	Total Cross match	6476	6400	6345	6205	6510
	Blood donation camps	47	44	43	39	37
Blood issued to						
	Thalassemia patients	323	437	132	475	397
	SCD patients	137	224	178	178	194

*** Casualty services/Accident and Emergency Services**

The Hospital Accident and Emergency Centre is provided with an experienced casualty medical officer (CMO) on a 24 hour basis. Clinical staff on duty is available in campus and resident doctors are available in duty rooms adjacent to casualty. Residents and interns perform emergency duties on shift basis. Their hourly duty chart for next 10 days is intimated in advance to the Medical Superintendent and meticulously followed by all concerned.

Adequate first aid, life support, resuscitation measures and emergency medications are available in casualty.

There are ten beds in casualty. Additionally 8 beds are available in the ICU adjacent to casualty. The Clinical Forensic Medicine Unit (CFMU) staff is also available round the clock in the casualty. They perform medicolegal examination and prepare necessary reports only after ensuring that adequate first aid and life support measures have been provided to patients who need to be registered with a medico-legal case (MLC).

Experts from clinical departments settle the emergencies in casualty and afterwards move such patients to the corresponding units or wards

*** Ambulance services:**

24x7 ambulance services are provided by hospital at an affordable price. One specialized ambulance for trauma centre and three other ambulances are owned by Kasturba hospital. The ambulance can be asked for from this phone number: 07152-284341-55 (16 lines) : Ext. 229 Voluntary social organizations also cater to the need of local public with ambulance service.

Hospital Pharmacy services:

Two 24/7 pharmacies opened in the hospital premises to ensure that our registered inpatients and outpatients can access drugs at affordable prices. On an average, our in-hospital pharmacy receives 2000 prescriptions every day- close to half a million prescriptions in 2014.

Beginning 2010, we implemented a low-cost drug initiative at MGIMS aimed at providing appropriate and affordable drugs to our patients. We procured drugs at substantially cheap prices by inviting competitive quotations from drug distributors and used the electronic hospital information system to buy, stock and dispense drugs and surgical items.

We have introduced computerized prescriber order entry (CPOE) to prescribe drugs. We also created e-prescriptions on the iPad app, specially designed for this purpose. The electronic applications help doctors identify drugs by both their generic names, check for their availability in the drug store and display their prices- thus minimizing prescription errors and improving the quality of evidence-based therapies. We made doctors and public aware of the benefits of the initiative and banned all drug representatives from showcasing their products in the hospital. We encourage our residents to prescribe drugs by their generic names.

The low-cost drug initiative has substantially reduced the cost of medical treatment at Kasturba hospital, both in outpatient and inpatient setting. Patients with catastrophic illnesses as well as those with chronic diseases have found significant difference in the cost of medications they buy at MGIMS compared to the market pharmacies.

*** Drug poison information service:**

This service is provided by the Pharmacovigilance centre under adverse drug reactions.

*** Pharmacovigilance:**

The Pharmacovigilance centre in the Department of Pharmacology is a recognized regional centre sponsored by WHO and has been providing service for the last five years. PVPI Ghaziabad provides funding to run the centre. Reports of adverse drug reactions (ADR) are collected from Kasturba Hospital, private hospitals, practitioners and also from AVB Hospital associated with JN Medical College Sawangi and PDM Medical College Hospital Amravati. ADR data are uploaded by the regional centre. Basic information about drugs is provided by the centre to all medical and paramedical workers and citizens.

*** Mortuary, cold storage facility:**

The available mortuary chambers are as follows:

Forensic Medicine Department: capacity for storage of 8 bodies, (size 8'x8'x6') in fixed cabinets available on 24x7 basis, connected with casualty to keep bodies temporarily for autopsy or transportation purpose.

Department of Anatomy: capacity of storage of 10 bodies for teaching purposes, developed for temporary storage of donated bodies.

PHYSICAL FACILITIES

Every department is expected to submit a plan and budget for the next five years. The management asks for details and further explanation of any proposal submitted by department on development of infrastructure. On approval of such plans the budget is granted and the proposal is executed.

In the recent years, the following developments have taken place in infrastructure:

- Clinical Forensic Medicine Unit: MGIMS has a distinction of developing nation's first Clinical Forensic Medicine Unit (CFMU). The CFMU has been established to work hand-in-hand with the accident and emergency centre in the casualty. The unit is headed by the Department of Forensic Medicine and Toxicology and handles all medico-legal cases under direct supervision of experts from the Department. The unit helps in training residents how to handle and report medicolegal cases.
- New Medicine Building: In 2012, MGIMS added a new modern building which houses all the services provided by the Department of Medicine. The construction of the building was partly funded by Mrs Sarla Parekh, Member of the Kasturba Health Society, in memory of her son and daughter in law who died in the 26/11 terror attacks in Mumbai. The state of the art construction spread over 70000 sq ft area, comprises of an outpatient department, triage facility, medical wards, a 26 bedded ICU, facilities for endoscopy, hemodialysis, cath lab, a pharmacy, prayer room and a well equipped conference and seminar room with all modern amenities.
- Centralized Skills lab and Simulation Training Centre: A centralized clinical skills laboratory has been set up since 2012-13. This not only fulfilled the MCI mandatory requirement but has also been utilized to teach and assess all levels of learners.

Now, MGIMS has established a much larger modern simulation lab to train doctors and paramedical staff in life saving skills. The project called by the acronym MIST, which stands for MGIMS Institute for Simulation Based Training. The project funded by KHS, has already procured mannequins to teach participants CPR during AHA accredited basic life support skills (BLS) and advanced cardiovascular life support skills (ACLS) courses, which are in line with the latest 2015 training guidelines of the American Heart Association (AHA). The lab also has a critical care simulation advanced mannequin which is first of its kind in whole of central India. The project is run by the Department of Anesthesia. In 2015-16, MIST-Sevagram conducted two AHA-accredited BLS and ACLS workshops and trained 42 participants.

- Utawali project: As part of our extensions work in tribal areas, a 30 bed hospital for women and children in the tribal area of Utawali, Melghat in Amravati district has been functional since 2012. Now a new 50 bedded multi-specialty hospital has been constructed with a budget of about 4 crores. This Dr Sushila Nayar Hospital started functioning in its new building in Utawali from 6 Feb 2016.

- Central Library: The Central Library at MGIMS has now acquired several modern additions. A 24X7 dedicated library server has been accommodated in the server room of the HIS. With this new facility, the library has gone digital and is tuned to deliver its vast e-resources to its users, who can access all its resources at their computer terminals or smart phones and other wifi enabled gadgets in the comfort of their rooms. The library management software was also upgraded to the latest version SLIM21. This software is designed and developed in modules to automate the library with features such as cataloguing, circulation, webOPAC , digital library, Dcoll module and smart card interface. This year, in addition to print journals, the library subscribed to 28 online journals with very high impact factors including The Lancet and Annals. This ensures that our users can access the articles exactly at the time of their release, without any delay due to postal delivery and that too in the comfort of their homes or departments through the Library server by simply clicking on the link provided. The library staff is being trained in using e-resources like DELNET and MOODLE regularly thus ensuring skill enhancement in managing a digital library.
- New Operation Theatre Complex: In an attempt to modernize existing facilities, Kasturba Hospital has constructed a brand new state-of-the-art operation theatre (OT) complex, adjacent to the existing OT complex. This complex constructed over 15000 square feet, has facilities catering to all super-specialities and will double the number of existing operation theatres. The new OT complex features ten modular OT suites, an intensive care unit and pre-operative assessment ward with ten beds each, two recovery rooms and a medical store. Each of the ten suites in the new OT complex are equipped with individual control HEPA filters and laminar flow, anesthesia gas scavenging systems, central ceiling mounted gas and surgical pendants, antistatic and antibacterial flooring. Each OT suite has state-of-the-art double arm LED OT lights with integrated video camera arm with LED screen display. Each OT is equipped with state-of-the-art modern anesthesia workstations with integrated advanced ventilators, multi-para monitors with ability to measure invasive pressures and anesthesia gas concentrations as well as body warming blankets. The new OT complex adheres to all the safety norms including planning for bio-waste disposal and fire safety system. The complex also provides enough space for the patient relatives to wait while their loved ones are being operated. An integrated two way audio-video system with central pendant data information and storage facilities will relay live operations and anesthesia procedures to the central auditorium in the second floor of OT complex, where students can learn from watching live surgeries and interact with the anesthesia and surgical team.
- Cardiac catheterization lab and intensive coronary care unit: In 2014, Kasturba Hospital added a cardiac catheterization lab to the facilities it offers to patients. A 5000 square feet cardiology block has been built on the south-east side of the first floor of the newly built Medicine complex. This block houses a ceiling-mounted cath lab used for detecting blocks and opening occluded coronary arteries by balloons and stents. In addition, a 10-bed intensive coronary care unit (ICCU) - equipped with pendants, central oxygen, central suction, central cardiac monitoring system , pacemakers, defibrillators, a and a system to display radiologic images (PACS) and monitored by hospital information system (HIS) has also been added to the cath lab. The new angiography suite is equipped

with sophisticated technology that produces high resolution images with the lowest dose of radiation possible.

- MRI machine: A state of art 1.5 Tesla 16 channel-S2 gradient system MRI machine was installed in Radiology Department. This machine enables color mapping of the functional areas of the brain, tactography, perfusion imaging etc and is of immense help in the evaluation of neurological and psychiatric patients and research.
- Model Maternal and Child Health (MCH) wing: The Ministry of Health and Family Welfare, Govt of India has approved the setting up of a 100 bedded model Maternal and Child Health (MCH) wing for comprehensive reproductive, maternal, newborn and child and adolescent health (RMNCH+A) at MGIMS Sevagram. The project proposal submitted through the Govt of Maharashtra is estimated to cost Rs 20 crores. This centre will provide quality maternal and child health services covering the whole perspective of RMNCH+A and will showcase all the technical protocols including infection prevention. The 100 bedded MCH wing will include the outpatient department, antenatal and postnatal wards, operation theatres, sick newborn critical unit, labour rooms, obstetric intensive care units, skills labs and other such areas. Construction of the project has begun and is expected to be completed by 2016.
- E-learning: To complement the classrooms, an e-learning platform is created in the institute by installing Moodle as a virtual learning environment. Training of the faculty has been completed in 2015 to develop e-learning modules in respective departments. The MGIMS Classroom link has been developed on MGIMS website to offer interactive online courses to support the classroom, clinical and community based teaching.
- Laboratory upgradation: The three laboratories of MGIMS in the Departments of Pathology, Biochemistry and Microbiology have been nominated under the “Labs for Life” project of CDC, NACO and Ministry of Health and Family Welfare (MOHFW). “Labs for Life” is a three year partnership initiative of the MOHFW and the US Centres for Disease Control and Prevention (CDC). It seeks to improve the quality of laboratory services, effectiveness and efficiency of public health laboratories under MOHFW. Through this collaborative effort, technical assistance will be provided to public health laboratories covering 10 districts from 6 states representing all five regions to enhance the capacity for quality diagnosis of communicable and non-communicable diseases in India, and strengthening the specimen referral and reporting system.
- Dormitory in peripheral training centre: To resolve the space crunch, the institute has added a dormitory complex at Kasturba Rural Health Training Centre (KRHTC) Anji which can comfortably house 25 girls and boys each during their routine training in Reorientation of Medical Education (ROME) camp in Community Medicine.
- New Hostels: Two new hostel blocks for undergraduate and postgraduate male students have been constructed to meet the demands of increased numbers of students. Each hostel block has 48 single rooms and is installed with all modern amenities like solar heaters, washing machines, television and wifi. The kitchens and dining rooms of the boys’ and

girls' hostels were completely renovated and redesigned. A new badminton court was also constructed between the two hostels.

- Guest House: A new guest house with thirteen rooms has been constructed on campus to give the guests and examiners who come to MGIMS a comfortable stay. The existing rooms at P Nayar Guest House were also refurbished.

As a part of holistic development, co-curricular and extracurricular activities are encouraged in institute. Students are motivated to participate in local, zonal, University and National level events. Over the years many students have won colours in many such events and competitions. The Institute provides the following facilities:

- Open air auditorium with green rooms, rest rooms and sitting area for 1000 people
- Closed auditorium with sitting area for 500 people
- Sarojini Naidu Hall: Air conditioned, capacity around 175.
- Sport fields: Ample space has been provided in the campus for outdoor sports. Playing grounds/courts are available for badminton, cricket, football, hockey, athletics and basketball

The institute has several laboratories and museums

List of laboratories:

Student practical laboratories:

1. Dept of Anatomy- 2 labs
2. Dept of Physiology
3. Dept of Biochemistry
4. Dept of Pathology
5. Dept of Microbiology
6. Dept of Pharmacology
7. Dept of Forensic Medicine and Toxicology
8. Dept of Community Medicine

Specialized laboratories:

1. Cytogenetics laboratory: Dept of Anatomy
2. Histology laboratory: Dept of Anatomy
3. Clinical Physiology laboratory: Dept of Physiology
4. Hematology Laboratory: Dept of Physiology
5. Amphibian laboratory: Dept of Physiology
6. Reproductive Biology Laboratory: Dept of Physiology
7. Neurophysiology Laboratory: Dept of Physiology
8. Impedance Cardiovasography (ICVG) Laboratory: Dept of Physiology
9. Sleep Laboratory: Dept of Physiology
10. Postgraduate Students Laboratory: Dept of Biochemistry
11. Clinical biochemistry laboratory: Dept of Biochemistry
12. Research Laboratory: Department of Biochemistry

13. Central Research Laboratory: JBTDRC
14. Histopathology Laboratory: Dept of Pathology
15. Cytology Laboratory: Dept of Pathology
16. Hematology Laboratory: Dept of Pathology
17. Coagulation and Serology Laboratory: Dept of Pathology
18. Flow cytometry laboratory: Dept of Pathology
19. Immunohistochemistry laboratory: Dept of Pathology
20. Research laboratory: Dept of Pathology
21. Clinical Pathology Laboratory: Dept of Pathology
22. Blood grouping and Serology laboratory: Blood bank, Dept of Pathology
23. Blood transmissible diseases screening laboratory: Blood bank, Dept of Pathology
24. Component preparation laboratory: Blood bank, Dept of Pathology
25. Bacteriology Laboratory: Dept of Microbiology
26. Mycobacteriology Laboratory: Dept of Microbiology
27. Mycology Laboratory: Dept of Microbiology
28. Serology laboratory: Dept of Microbiology
29. Immunology Laboratory: Dept of Microbiology
30. Virology Laboratory: Dept of Microbiology
31. Parasitology Laboratory: Dept of Microbiology
32. Molecular biology laboratory: Dept of Microbiology
33. BSL3 Laboratory: Dept of Microbiology
34. Experimental Pharmacology Laboratory: Dept of Pharmacology
35. Clinical Pharmacology Laboratory: Dept of Pharmacology
36. Toxicology Laboratory: Dept of Forensic Medicine and Toxicology
37. Public Health Laboratory: Dept of Community Medicine
38. Common Collection Central Laboratory: OPD
39. Temporal bone dissection Laboratory: Dept of ENT
40. SICS and Phaco Web Lab: Dept of Ophthalmology

List of museums:

S. No.	Department	Exhibits/ Specimens	Seating capacity
1	Anatomy	Mounted specimens: 125 Anatomy Models: 33 Embryology models: 90 Anthropology models: 4 Comparative anatomy models: 16 Bones: 91	25

		Radiographs, MRI and CT: 65	
2	Pathology	Mounted specimens: 1250 Charts and diagrams: 100 Catalogues: 20	10
3	Microbiology	Specimens: 79 Charts: 63 Models: 6 Media: 14 Antigen: 13 History of Medicine charts Catalogues	25
4	Pharmacology	Specimens: 225 Charts: 47 Models: 90 History of Medicine: 30 Catalogues: 49	25
5	Forensic Medicine	Mounted specimens: 107 Wax Models: 15 Clay models: 10 Weapons: 37 Charts: 45 Prototype firearms: 2 Poisons: 63 Photographs: 37	

		X rays: 60	
6	Community Medicine	Charts: 42 Models: 51 Specimens: Catalogues: 30	

Yoga and Naturopathy

* **Demonstration hall with teaching facility to cater to the needs of the students.**
Available. Area: 600 Sq.ft (30'X20') demonstration hall / spiritual Library is equipped with fair number of books and magazines on health & spirituality. In addition audio-visual facilities (LCD TV, LCD Projector and PA system) are also available.

* **Diet Service Management Department**

Well established diet and nutrition section is available with biogas operated kitchen along with dining hall. It provides nutritious vegetarian naturopathy diet to the patients. Total area: 2131 Sq. ft.

* **Yoga cum multipurpose hall for meditation and prayer**

Available as follows:

- Yoga hut in nature park with bamboo structure & profile sheets for yoga practice, meditation and prayer. Area: 1196 Sq. ft (26' x 46')
- Pyramid Meditation Hall: in nature park for performing meditation. Area: 256 Sq ft (16' X 16')
- Open air shed (shed with profile sheet): upstairs of Maitri Bhavan for yoga practice, meditation and prayer. Area: 1345.5 Sq ft (69' X 19.5')
- Lawn: Lush green lawn for yoga practice, meditation and prayer. Area: 5700 Sq ft (60' X 95')

* **Solarium compatible for multimedia presentation**

Demonstration Hall/ Library available (mentioned above).

* **Mud Storage Unit**

Available as treatment unit and storage. Mud Therapy section: area: 115 Sq ft. (11.5' X 10'); Mud storage unit (mud processed & prepared for application) area: 231.2 Sq ft (17' X 13.6').

* **Outdoor Facilities - Walking track with reflexology segment**

Available as follows:

- Accu-pebbles walk track with reflexology segment with serene nature park and herbal garden (225 acres) (Amla).

- Labyrinth walk track for walking meditation

* **Swimming Pool**

Presently not available but proposed for future.

* **Naturopathy blocks**

Available as follows:

- Separate treatment section for gents and ladies with separate unit for hydrotherapy (steam cabin-2) and steam Room, spinal bath & spray, hip bath, immersion, packs etc.), massage (Swedish, Ayurvedic), mud therapy (Local & General), thermolium (Sun/ Color therapy), douches etc.

Total Area: 1560 Sq ft.

- For benefit of indoor and outdoor patients with health problems

a) OPD Complex with chambers for consultation & demonstration. No. of Chambers: 4. Total Area: 564 sq.ft.

b) Twenty four simple cottages (twin unit) with solar water heaters for indoor admission and treatment of obesity, hypertension, back pain, stress etc patients.

Total Built up area - 10,380 Sq.ft. (Built up area per Twin unit - 692 Sq.ft).

AVAILABLE RESOURCES FOR ACADEMIC ACTIVITIES

Lecture theaters : 7
Seminar rooms : 22
Demonstration rooms : 22

Details of Lecture theatres:

	Anatomy	Physiology	Pathology	Community Medicine	Adhyayan Mandir	Sarojini Naidu Hall	Psychiatry
Arrangement of Seats	Gallery	Gallery	Gallery	Level	Level	Level	Gallery
Capacity	250	120	120	100	120	120	100
Lighting	√	√	√	√	√	√	√
Ventilation	Air cooled	Air cooled	Air cooled	Air cooled		Air conditioned	
Audio-visual facilities	Black boards, Epidiascope, LCD projector	Black boards, LCD projector	Black boards, Epidiascope, LCD projector	Black & white boards, LCD projector	Black board	White boards Audio system, LCD projector	Black & white boards, LCD projector

LIBRARY

* **Total area of the library (in Sq. Mts.)**

Layout and floor area	
Central Library	257 sq. mt. (2776 sq. ft.)
Reading Rooms	960 sq. mt. (10342 sq. ft.)

- **Digitalization of Library (E-library):** Since, the last 3-4 years we have digitalized the library and made it accessible online to all members – faculty, students and staff. For this purpose, the Central Library has initiated e-library facility with the help of WebOPAC (SLIM 21 Software) to access online medical databases, e-resources, e-journals, e-books, atlas, clinics, online newspapers of world directory, videos, MGIMS publications (theses, dissertations & articles) and can get borrowers details such as due dates of book, overdue and fines for all for faculty, post graduate, PhD Students, undergraduate and nursing students with the help of SLIM21 Library management software. Presently, e-library is linked with online databases-30, articles-79, thesis-246, e-books-40, e-journals (foreign)-28, videos-10.
- In addition to this clinics, dictionaries, atlases, question papers, MUHS Syllabus for undergraduates & postgraduates, MGIMS Publications (MGIMS Official Website, Annual Reports, JMGIMS, MGIMS Bulletin, Hospital Statistical Bulletin, Sushruta, Sevamed, JBTDRC) and Google Map, World Newspapers directory, India Medical Times & Sevagram Ashram and are available through (HIS) - <http://172.16.1.20/w27/w27SimpleSearch.aspx>
- In year 2016, library has subscribed 28 online high impact foreign journals for faculty, PhD, post graduates, under graduates and nursing students.
 - The Central Library has renewed UpToDate online subscription for faculty members and postgraduates students on the campus wifi. The subscription provides access to over 10000 topics in 22 specialties. These are written and edited by over 5000 world renowned physicians, authors etc. and are available through <http://www.uptodate.com/contents/search>
 - Central Library has renewed DELNET (Developing Library Network) services which has e-resources, journals & books and are available through <http://delnet.nic.in> (Login- mhmгимsw)
 - Central Library has renewed e-journals package subscribed (IMedC) from DELNET (Developing Library Network) services a web based linking and search on internet based e-resources including e-journals, books, e-archives and are available through - http://infotrac.galegroup.com/itweb/gandhi_medical
- Working Hours: The Central Library & Reading Hall opens all days including Sundays & Holidays except national holidays.

- User orientation: The Library had arranged a presentation cum orientation programme on SLIM21 online Catalogue on 19th August 2015 for MGIMS Faculty and all post graduate, undergraduate and nursing students with the help of our Institute Academy of Medical Sciences in Sarojini Naidu Hall. Demonstration of SLIM21 software namely “Electronic resources management & search solutions” e-Resources, Library Software Database and digitized Thesis /Articles was done by Algorithyms Consultants Pvt. Ltd., Pune.”
- **Other services**
 - Free Internet for all members; air conditioned section for internet users
 - Video / CD section
 - Reprints available on demand from National Medical Library
 - Access of old precious journals archiving & can access since 1969
 - Aesthetically pleasing reading room
 - Reading Room capacity for 200 - 250 students with duct cooling facility
 - Renovation of toilet block: modern well maintained, clean, hygienic for students
 - Photocopying facility available at subsidised cost

IT INFRASTRUCTURE

Kasturba Hospital has a comprehensive Hospital Information System which the hospital uses to store and process health information and data about patients. As of now, the HIS has built 21 modules that are used by 150 faculty, 120 residents, 60 interns, 250 nurses, scores of clerks, laboratory technicians, pharmacists, dieticians and administrators. Spread over the entire campus- thanks to a WiFi connectivity, doctors now use over 350 desktops, countless mobile phones, iPads and laptops across the hospital to access the data- anytime, anywhere on campus.

HIS application is a Web based application; it runs on Linux servers. Optimized for different browsers including Safari, Chrome, Mozilla, IE etc, the system allows faculty, residents, interns, nurses, pharmacists, laboratory technicians, administrators, student section of the dean office, the central store, and finance department to transact all their requirements electronically.

Registration, Admission, Discharge, Transfer (RADT) Module

Managing the entire patient care workflow has never been easier. At the registration desk, the system captures patient demographic information and assigns them a unique 12-digit ID. The module is also used for generating annual health assurance cards, bed tracking and discharge, the Registration, Admission, Discharge, Transfer (RADT) system manages the necessary administrative procedures for both inpatient and outpatient visits, including applying policies, managing waiting lists, and assigning wards, units and beds.

The system is fully integrated with ward systems and automatically generates an accurate census at the stroke of midnight- statistics on occupancy, admissions, transfers, and discharges.

Health Assurance

We offer a unique health assurance scheme which greatly facilitates the access to an affordable health care. Close to 65,000 families avail themselves of this facility and a quarter million individuals in and around villages and towns around Sevagram register themselves every year for the unique feature Kasturba Hospital is associated with. The Health Assurance module helps the hospital acquire, store and use this information and helps the billing section to bill the patients according to the category they belong to.

Queue Management System

An electronic queue management system ensures that all outpatients in the respective OPDs are assigned a number and enter the doctors chambers according to the queue number generated by the system. This system has also helped the institute to do a time motion analysis to assess how much time patients are spending at each counter after they are registered in the hospital.

Doctor Desk

A unique feature of the system is electronic desk- extensively used by residents, interns, consultants for tracking the inpatient information. This module helps the doctors to track all the patients in their unit and department, order laboratory tests, view test results- arranged chronologically, order drugs electronically, enter operating room notes, generate a discharge summary, review past visits, test results and admissions and print the discharge summary.

With a few mouse clicks, doctors can quickly and simultaneously view diagnoses, treatment histories, test results, and medication histories. The HIS includes a fully integrated computerized electronic discharge card that allows clinicians prepare discharge summaries electronically. The system captures information on patient demography, all laboratory tests, operating room notes, and in-hospital management. Laboratory results and diagnostic images are electronically reported and linked to the patient.

Nursing Workspace

The HIS provides a platform to support nursing related activities within the hospital setting including assigning a bed, tracking the patient, medication administration, maintaining stocks, and billing the services used by the patient.

RIS/PACS

We introduced RIS/ PACS in the hospital in 2011. The RIS/PACS is a seamlessly combined Radiology Information System (RIS) and Picture Archiving and Communication System (PACS) that has been integrated with the Hospital Information System. With RIS/PACS, radiologists use a single software application to manipulate study images and access the entire patient medical record. The workstation interface has been optimized for radiologist workflow, including support for predefined templates, an intuitive report editor, and voice-recognition and dictation capabilities. Multi-resource appointment scheduling, image distribution, and patient billing are also included.

Laboratory Information System

The Laboratory Information System fully integrated with other modules allows doctors to order laboratory tests electronically, and laboratory technicians to accept the samples, run the tests, and enter the test results electronically. The consultants electronically validate the test results and doctors can access the validated tests at the point of care in different settings- OPDs, wards and operating rooms. Automated integration software for lab analyzers (e.g. electronic cell counters) allows test results to be captured directly in the system. Thus, the turnaround time for biochemical tests has been reduced to 2 hours leading to improved clinical outcomes and increased efficiency.

Operation Theaters

With over close to 20 major surgeries performed in the hospital each day, the operating rooms require a quality surgical management system. The HIS operating theater module delivers maximum efficiency of operating room resources, staff, and materials through scheduling, utilization, and peri-operative management tools. We have also designed a module that permits the OT nurses to electronically order all drugs, sutures, and accessories required for an operation electronically.

Blood Bank

Blood Bank Management System is a solution that was designed for MGIMS to store, process, retrieve and analyze information concerned with the administrative, inventory management, and clinical aspects of providing services within a blood bank. Every year, close to 4500 blood bags are issued to the different sections of the hospital, using this module.

Clinical Forensic Medicine Unit (CFMU) Module

Taking into consideration the poor quality of medico-legal reports which act as a deceptive factor during judiciary trials, in 2012, we established Maharashtra's first Clinical Forensic Medicine Unit (CFMU) at the department of forensic medicine.

Started with a purpose to bring an efficient medico-legal system, this unit is incorporated to work hand-in-hand with the emergency centre and all medico-legal cases are handled under direct supervision of experts from the department.

The judiciary had passed strictures on the illegible handwriting of medicos on the legal reports as it was impossible to decipher them. To overcome this constraint, MGIMS has also developed forensic medical software which generates printed and organized reports. The module has complete data of patients and ensures that not even a minute detail is skipped.

Medical Record Department

The Medical Records Department is responsible for maintaining medical records in a standardized and professional manner in order to protect patient confidentiality while allowing adequate access to providers in order to promote quality patient care. All discharge diagnoses are coded by a pair of trained medical record personnel. They assign ICD 10 code to each discharge diagnosis and generate reports that helps administrators understand the prevalence of diseases. The code set allows more than 14,400 different codes and permits to assess the burden of diseases in the communities that they are serving. Also information on notifiable infectious diseases, births, and deaths is collected and sent to the state public health agencies.

Pharmacy

In addition to automating the routine workflow of hospital pharmacy, HIS provides tools for bar coded prescriptions. The e-prescriptions generated at the point of care helps increase patient safety by decreasing the risk of patients receiving the wrong medication. The HIS also deals with the purchase, inventory management and distribution of various drugs, sutures and surgical items to outpatient pharmacy, inpatient pharmacy, wards and operating rooms in the entire hospital. The system ensures that the pharmacies are well-stocked. We have created transparency, better monitoring and complete control over the drug distribution in the hospital.

iPads at the Point of Care

We introduced iPads at the point of care in 2013. We realized that our patient care is becoming very data driven. Although the electronic system had eased our access to data, the data were still housed in computers. Doctors are always on the move, and clinical medicine can never be practiced behind a desk. We, therefore felt that critical data also needs to be mobile. Thus, we

needed a system that allowed providers to be at the bedside to make these decisions and yet still be able to access the data.

We procured iPads for the residents and willing faculty, and asked them to use the iPads at the patient's bedside. We commissioned a Bangalore based leading app application agency to specially develop an app for MGIMS which could help doctor enter, store, retrieve and act on the information where it matters most- at the point of care.

When doctors-in-training at the hospital were given iPads to use on their rounds, they found that using the device helped them be more efficient at ordering tests and procedures for their patients. They also felt that earlier they couldn't spend a lot of time at the bedside because they're tied to the computer. The iPads allowed residents to see patients' electronic health records, to contact the hospital laboratory or other departments if they needed tests done and to show patients their own x-rays and other test results, as well as access medical journals. <https://www.youtube.com/watch?v=glxjwIijONI>

Accounts and Payroll

The HIS provides general ledger, accounts payable, accounts receivable, fixed asset, and cash management solutions enabling a current, consolidated, and fast view of the financial status of the organization at any point in time. Payments received from patients, and payments paid to vendors, salaries are electronically generated, tuition and hostel fees now take an electronic route and all transactions can be tracked and easily posted to the General Ledger system to reflect their effect on accounts and financial reports.

To sum up, the real time HIS streamlines the treatment flow of patients and also empowers the hospital's workforce to perform their duties effectively and efficiently and providing benefits to both the recipients and the providers of healthcare.