MAHATMA GANDHI INSTITUTE OF MEDICAL SCIENCES, SEVAGRAM

Hospital Information System (HIS)

The Hospital Information System was launched at MGIMS in 2004. Over the years, 20 modules were developed and successfully deployed to capture, save and display information from all sections of the hospital (registration, insurance, outpatient departments, emergency services, inpatient wards, laboratories, blood bank, operation theaters, pharmacy, dietary section, Medical records Department [MRD] and admission-discharge sections). In addition, the Personal Information Sections, Student Section, Central Store, Payroll Section, Account office and Transport Departments also use the HIS to record, store, retrieve and use data related to their offices. MGIMS has now the distinction of being one of the few medical institutions in the country where the Hospital Information System is actually being put to productive use.

The hardware of the system comprises of around 40 major application and database servers, around 400 desktops computers, 152 printers, 85 bar-code printers, 77 bar-code scanners, 15 + 12(NMC) Biometric machines, 220 IP cameras for electronic surveillance; the system deploys 104 switches to connect the electronic network. In 2013-14, HIS was used to register .6 million outpatients, insure about 238000 individuals, admit 49,000 inpatients, handle 6600 blood bags, and transact close to six-hundred thousand tests. The system also stored electronic records of about 18700 operations and 490,000 prescriptions. Now that the entire MGIMS campus is connected by a wireless network, residents and consultants electronically access their patients' data on campus- anytime, anywhere. The whole campus enjoys the campus licenses for TrendMicro antivirus, Microsoft Office, Windows Operating System, Microsoft Servers etc.

Campus Intramail

The HIS introduced electronic mail, powered by Google, and used by around 1500 users (students, interns, residents, faculty, laboratory technicians, nurses, paramedical staff and administrative staff) on campus. Every user was registered and assigned a unique MGIMS email ID that identifies them with MGIMS. They use the MGIMS email ID to communicate within the campus and also outside. With electronic mails replace the traditional paper-based communication systems, the campus is steadily moving towards a paper-less campus.

Wireless campus and IPads at the Point of Care

The entire campus (classrooms, seminar rooms, auditorium, library, hostels, administrative sections, hospital, laboratories, operating rooms, administrative buildings and homes), now enjoy a seamless high-speed internet connectivity through a wireless network. More than 1000 users are registered with the system.

The HIS has also extended this facility to the peripheral healthcare centers (Urban Health Center, Wardha, Rural Health Training Centers, Anji and Bhidi, located 10, 20 and 30 km from Sevagram respectively).

In 2012, MGIMS decided to equip its doctors with iPads and asked developers to design an application, aptly called Point of Care to help doctors access patient data where it matters most- at the patient's bedside. For the system to work seamlessly, MGIMS connected those devises via wireless network. The always connected environment gave students and researchers access to relevant information, whenever they needed it. The solution used multiple input multiple output (MIMO) technology to provide enhanced wireless range and coverage area. The wireless network has improved the way MGIMS students' teachers and researchers conduct workshops, present research in the conferences and manage complex medical illness.

 MGIMS also helped its residents and faculty acquire iPads, which many of them use in the OPD section, wards, intensive care units and operating rooms to access information, and more importantly use the information at the point of care. The arrival of the iPad a watershed moment for healthcare IT in MGIMS. Now residents can retrieve patient data quickly, with drill-down access to details, prescribe with electronic transmission to pharmacies and view a timeline of key patient information such as lab results, medications, radiologic images and past visits to the hospital, and more.

2023

The Datacenter connectivity is up to 100 GBPS and back bone connectivity is mostly on 10 GBPS.

The HIS also acquired new servers last year (2023), moved the application on the new application servers and also ensured that the HIS can be accessed on a variety of browsers-Internet Explorer, Chrome, Safari and Mozilla Firefox- to name just a few.

Plans

This year institute is planning to get a new application all together.