

Integrated hospital management system for Al-Amaal hospital, Khartoum, Sudan

Al-Amaal Hospital required a completely integrated solution for their hospital to manage scientific information as well as the treatment modalities offered by more than 10 departments. Apart for the department's automation, the system was also required to integrate a basic personnel system which looks after the administrative needs of all the employees.



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Business Challenge

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The need was to create an aesthetically pleasing yet practical system. In spite of the large volume of information, the structure and navigation needed to be simple and targeted to the audience perspective. With multiple departments and information running into hundreds of pages, the hospital felt it was critical for the information to be organized systematically in an uncomplicated way.

The hospital wanted filtration of information, which can be partly used to disseminate information to the public and partly for its own employees and the some portion for decision making authorities.

Apart from all this, they required a full-proof notification system via SMS and other hand held devices to its doctors, visiting consultants etc., about the appointments; integration with all computer-output equipments and instruments to view customized reports on their system.

Solution

The HMS developed by CSM is modular, thus ensuring sustained benefits through changes in technology, protecting and providing optimal returns from the investment. It is modelled on a unique combination of a 'patient centric and medical staff centric' paradigm, beneficial to the recipients and the providers of healthcare.

HMS uses a network of computers to gather, process, and retrieve patient care and administrative information for all hospital activities to satisfy the functional requirement of the users. It also helps as a decision support system for the hospital authorities for developing comprehensive health care policies.

The HMS incorporates an integrated computerized clinical information system for improved hospital administration and patient health care. It also provides an accurate, electronically stored medical record of the patient. A data warehouse of such records can be utilized for statistical requirements and for research.

HMS is based on the exemplar of a centralized information system designed for quick delivery of operational and administrative information. The software is built around a highly optimized core library. Application modules are layered around this core and can be suitably customized for any user specific requirements.

Some of the advantages of electronic Patient Medical Records over the conventional paper records are:

- Prompt and reliable information storage, querying and retrieval.
- Easy access to query data to generate varied records, including classification based on demographic, gender, age, and so on.
- Instant information access for research and library information.
- Efficient and accurate administration of finance, diet, engineering, and distribution of medical aid.
- Improved monitoring of drug usage, and study of effectiveness

Results

The obvious results which showed in Al-Amaal Hospital which is common to all HMS solutions are:

- HMS enables hospitals and doctors to better serve their patients
- Improved quality of patient care
- Increased nursing productivity
- Reducing the time spent by staff filling out forms, freeing resources for more critical tasks
- Better quality of care, procedures and service to Patients.
- Control over the costs incurred by diagnosis-related groups

Integrated Hospital Management System of CSM was precise and resulted in cost cutting and efficient management. The crucial points that Al-Amaal Hospital's benefited in are:

- Less number of Staff to cater more patients in same time or even less. Re-deploying them at other suitable locations.
- Provided an opportunity to enhance their patient care and increase the profitability of the organization.
- Enabled hospital to serve the rapidly growing number of health care consumers in a cost-effective manner.
- Hospital administrators are able to significantly improve the operational control and thus streamline operations.
- Enabled improvement in the response time to the demands of patient care because it automates the process of collecting, collating and retrieving patient information.
- The senior Doctors would spend his precious time more in clinical activities than to put in clerical activities otherwise.
- Easily navigational software interfaces save a lot of time from data entry for special jobs only.
- Accounting sometimes becomes awfully pathetic and complex. This Hospital Management System eliminates any such complexity, since the retrieval of information through its MIS.



At CSM, we understand the critical nature of keeping the customer's organization up and running from an IT perspective. We understand the technical issues within complex systems and work to put together the best solution to support end users' needs, both today and in the future.

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