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# Values of Healthcare

By Hanan Shahaf

## Health Organization Managers

Our products are suitable for primary and secondary care systems, specialist and multi-disciplinary systems, hospital systems, and rural area clinics. Any organization where there are widely dispersed facilities with no data control, administrative and clinical support, and lack of integration between care givers and main headquarters. The **EMR** suite facilitates true clinical decision making by providing online decision support and control. Management is able to control cost incurring processes by influencing decision-making before it takes place.

### *EMR ÷ the technology that has all the tools*

With the **EMR** solution system, medical staff can work faster and more efficiently while HO managers work safer and smarter. These tools create a safety mechanism to eliminate duplication and errors, reduce the risk of medical mistakes and fraud, and act as a framework for clinical pathway and financial programs. One provider group that understands the tangible benefits the **EMR** system can provide, is Maccabi Health Care, Israel. For details of this project see our *Case Studies page*.

## Benefits to HO Managers

### □ **Complete monitoring and controlling of all enterprise wide information**

The **EMR** makes it possible to know first hand what goes on at every point of entry, junction or exit within the system. For example you can know who is active in the system at any given time. Thus, loopholes and leakages of HO (health organization) resources or fraud within the system are eliminated.

### □ **Implementation of HO strategies**

The **EMR** system makes it possible to integrate HO policies into the basic flow of the medical “production floor”. That means intervening at any point and every level of operation, for example, patient’s entry points into the system or “routes” between different physicians, membership enrolment, benefit management, premium billing, prescriptions, follow-up procedures, referrals or preventive medicine policies.

### □ **Increase physician efficiency**

Patient charts are easy to create and maintain. Locating patient file is quick and simple; the staff will spend less time filing and tracking down, copying and faxing, and more time seeing patients.

### □ **Provide better quality of care**

Limiting the probability of physician error in administering treatment. The system is generating patient specific reminders, alerting physicians of deviations from practice

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guidelines, or alerts regarding drug and allergy interactions, during the medical session, at the time of decision making. In addition, it is possible to do physician profiling to attempt identify physicians whose treatment or diagnosis fall outside a certain norm.

□ **Cost controls**

Implementation of financial policies of the organisation, including: controlling medication and treatment options by guiding to preferred alternatives by the HO, pre authorization for costly procedures and expensive chronic medications.

□ **Preventive medicine analysis (PMA)**

Implementation of preventive medicine measures improves overall population health, and early diagnosis contributes to big savings in HO resources.

□ **Outcome management**

The system originates any type of reports for analysis and re-evaluation of HO strategies. For example, productivity management reports for doctors, insurance carriers, facilities and revenue centers. As a result, healthcare managers get a deep insight into the nature of the medical process, and the link between different domains of the medical information data (such as the relation between diagnosis, treatment, medication and referral), and can make adjustment in their strategies accordingly.

□ **Fraud elimination**

Loopholes and leakages of HO resources or fraud within the system are eliminated. That means closing gaps in service circles, from the point of the physician's order of treatment to the point of service received by the patient (pharmacies, X-rays, hospitals etc), this way there is maximum control over expenses.

□ **Better integration of communication**

The system offers mechanisms for mutual feedback between the different points of care. For example, lab results and different test results automatically received and delivered into the patient's files. The sharing of information between physicians and the rest of the medical staff allows for an all-together higher quality of care

*The **EMR** Suite delivers you bottom line improvements in monitoring care workers and administrative productivity*

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## **Physicians and Clinical Teams**

Clinical information is analysed automatically, with system-generated alerts notifying physicians of gaps in patient care. Physicians have the ability to control the quality of care they provide, and analyse clinical data for compliance with care plans and preventive guidelines. For example, decision support tools for managing the health of the diabetic population; the system notifies physicians when a diabetic patient is due for a visit or has not had a hemoglobin A1c during the current year. The impact of such decision support capabilities is substantial for preventive medicine implementation. Doctors provide better medical care as a result of using more organized, complete and accurate information, conduct research based on the information in the medical records and cut down costs on all the activities required to handle paper oriented environment.

### **Benefits to Physicians**

#### **□ Quick access to patient data**

Imagine your patient charts always a click away, immediate access to all patient information, and immediate data retrieval within a clear, comprehensive, electronic patient record.

#### **□ Save more time as patient data builds**

After entering basic encounter information, **EMR** automatically sends appropriate data into different parts of the patient file, thus, as the patient file grows over time or the care becomes complex, previously time consuming documentations and forms take only moments.

#### **□ No-writing required environment**

Enter and retrieve data with minimum typing through token driven tables. Patient documentation is quickly generated, as all forms and reports; discharge and progress notes, medication orders and referral letters are created automatically, as needed, retrieving data from the patient's file.

#### **□ Easy and user friendly environment**

Standard Windows interface, easily store, enter, display, sort, retrieve and analyse medical information.

#### **□ Communication with central and peripheral systems**

Online communication for receiving and sending patient membership information, import data into patient records from outside systems, and export **EMR** data to other systems online, such as, laboratory test results, imaging and video source pictures or documents via e-mail and so on.

#### **□ Clinical decision support tools**

Clinical pathways development and monitoring is enabled through information files concerning Standard Medical Procedures online (for example guidelines for the treatment of diabetics, use of diuretics in the treatment of hypertension, throat

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infections in children, etc), or alerts on abnormal test results, allergies or drug interactions etc.

❑ **Built in PMA (preventive medicine analysis) guidelines**

Built in alerts notifying physicians of gaps in healthcare or tests overdue, contributes to early diagnosis.

❑ **Extensive graphic utilities**

Graphic utilities for viewing pictures and imaging or creating online graphs based on record data (laboratory test results, vital signs, Gantt graphs and more), all medical graphics can be stored in the individual patient's photo album (X-Rays etc).

❑ **Various view options**

Medical staff using the system can use various ways to display information: by subject, by date, chronologically, or by medical problem.

❑ **Reports**

Conduct research and analysis of record data and produce effective reports.

❑ **Electronic test results**

Laboratory test results can be imported electronically directly into the patient's file, with lab alerts displayed for every irregular test result received.

❑ **Efficient archiving**

Archive files remain available for browsing and reports. Nothing is ever erased or deleted. Once entered data is permanent and errors and corrections can be noted. The original entry is always available to resolve any issues or address any questions.

❑ **Advanced options**

Macros and clinical algorithms, pending procedures, lab alerts etc.

❑ **Customizable system**

Different parts of **EMR** applications are customized to suit the needs of the target audience and individual end users, thus, medical staff carry out their tasks, and record activities within an application built for their field of specialization.

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## **IT Professionals**

Most experts today agree that the success or fall of many healthcare organisations will depend on how well they are using the tool of information technology to deal with the industry's wide range of challenges and difficulties. Without genuine integrated IT infrastructure, workflow automation, real time cost control, effective resource allocation, outcomes information and clinical pathways all become impossible.

With more than dozens of specific applications automating the needs of virtually every segment of the care continuum, our software is capable of both retrieving patient clinical and financial data across an entire health care system. We provide answers to important strategic issues such as: implementation of enterprise wide management reporting systems, and maximization of physician connectivity and integration. Our depth of knowledge and expertise in this area is unparalleled.

We have developed a proprietary technology; the **EMR** own authoring environment. This is a Windows 95/NT based RAD type application generator developed especially for the management of medical information systems. The **EMR** technology is underlying the design of all **EMR** solutions.

### **Benefits to IT professionals**

#### **□ Fully integrated system**

The **EMR** solutions are designed to enable practicing physicians carry out and record their medical activity within a state of the art electronic medical record. This is a patient charting oriented medical file that fully emulates the natural flow of events of the patient physician encounter, and has all the tools necessary to record and carry out the physician's tasks. The tools that handle the medical and administrative activities are built into the workflow and are just a mouse click away. For example, the doctor can easily give out prescriptions and referrals and obtain lab alerts and drug alerts online. In a hospital setting, doctors can produce discharge letters that automatically select the necessary information from all across the hospitalization file and incorporate it into a discharge letter ready to be printed out.

#### **□ Multi disciplinary & embedded algorithms**

The **EMR** electronic medical record is the building block and major component of Clicks integrated system solutions. It can be created specifically for each medical field and as such incorporates that field's preferred information flow and practice methods. The target platform for any organization is made up of a collection of medical-field oriented applications and becomes a **EMR** integrated medical information system solution. A hospital out-patient clinic solution is an example: it may contain specialized **EMR** applications for each medical field and common data sheets for all the clinics; it may also contain a section with the patient's history of hospitalizations, updated automatically with each hospitalization. In addition, it can have.

In addition, basic medical procedures such as patient follow up divided by population, and clinical reminders on drug allergies , risk factors, periodic checkups and so on, as

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well as clinical algorithms for common and complex situations alike can be integrated into the natural flow of information in the medical record.

□ **Application generator for integrated systems**

**EMR** solutions are designed in the environment of **EMR** own RAD technology, developed specially for the medical arena. As such, they are integrated solutions, customized and built to suit all the needs of the target organization or facility.

Focusing on the needs of the target installation sites, **EMR** solutions provide answers to all aspects of the medical work methods and organizational standards.

For example, a solution for a hospital out patient facility can contain the history of the patient's hospitalizations and provide common data sheets of interest to all the clinics. In addition, physicians of each medical field will work within their own specialized **EMR** application.

□ **On the production floor**

The **EMR** system operates online, on location at the physician's workstation at the heart of the medical session. The system enables interactive management of clinical information (text and numeric, graphics and imaging, sound, video and scanned documents) in a comprehensive, patient charting oriented electronic medical record. At the same time administrative procedures and connectivity to main computer systems are maintained to enhance the performance of the medical process at hand.

□ **Built in connectivity and control**

The system provides bi-directional connectivity to the provider's main computer system. This gives the organization, an insight of unprecedented scope into the heart of the medical process and, provides a coherent medical information solution for optimal functionality in today's complex medical environment.

□ **Flexible structure**

**EMR** is an open application, the flexibility of the database structure allows frequent changes with the utmost degree of tolerance. For example, new data screens (**EMR** templates) can be added, others modified or even removed. Or, new fields can be added to the specific application, other modified, moved around in location, enlarged or reduced in size and so on. These changes can be made conveniently any time, without the need to rebuild the database or interfere with the physician's daily work.

□ **Platforms**

**Client:** Windows 95/98/ME, or Windows NT/2000 workstation

**Servers:** Novel or Windows NT

**Database:** Pervasive SQL 7 or 2000

□ **Features**

- Financial and management systems
- Decision support applications
- Open and flexible design capabilities, for example customizing reports from clinical or financial data

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- Continued centralized control & separate applications on client PC's
  - Technology that can be scaled to serve the smallest to the largest organizations
  - A secure Intranet, which can provide all media to serve text, audio, and imaging requirements of the integrated delivery system ?

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## **Patients**

Improved medical information management can make the difference between “ok” health care and quality health care. Instant access to electronic medical records, rapid turn-around of test results, patient registration and membership, and a host of other applications, all contribute to increased patient satisfaction and safety, and accelerating the clinical workflow.

### **Benefits to Patients**

- **Continuous always up to date medical file**

Standardized information and documentation patterns. All documentation produced within the system is easily retrieved and always available. No misplaced or lost data.

- **Better medical care**

Through implementation of preventive medical guidelines, the patient receives frequent and consistent follow-up, thus, high quality care.

- **Time saving**

Limiting the occurrence of misplaced or lost test results, the frustration and extra time wasted in having to repeat them.

- **Readily available educational information sheets**

Various health related information sheets for patient education and promotion, such as smoking, exercise and nutrition, preparation for certain X-ray tests etc.

***Ultimately, better medical care***