



Redefining the Patient Record Paradigm

White Paper

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MedicAlert Foundation

CapMed, a division of
Bio-Imaging Technologies, Inc

Redefining the Patient Record Paradigm

White Paper addressing Timely Access to Patient Records

Introduction

The lack of timely access to a patient's medical information is both dangerous and costly, especially in the event of an emergency situation. This problem is compounded in the United States by the following facts:

- There is no central repository of a patient's complete medical record
- With a decentralized and specialist-intensive healthcare system, patients are frequently visiting multiple providers that do not have the capabilities to communicate amongst one another
- Americans are oftentimes taking multiple medications both prescribed and over-the-counter

“With paper records locked in someone else's office, it can be virtually impossible for a doctor - particularly in an emergency - to find out about a patient's allergies or medications, view their latest lab results or anticipate complications based on their medical history”.

- Laura Landro, Wired Patient, July 1, 2003. Wall Street Journal.

In summary, there is no continuity of care. With an estimated 100,000 deaths each year as a result of medical errors, change is imminent.

April 2004 marked President Bush's Executive order 13335, and the appointment of Dr. David Brailer as the National Coordinator for Healthcare Information Technology, aimed towards improving the health information infrastructure of the U.S. healthcare system. Core objectives of Dr. Brailer's 10-year health information technology plan revolve around encouraging the use of electronic records, facilitating the interconnectivity of these records, encouraging Americans to use personal health records, and improving health status monitoring.

This paper introduces the reader to an innovative yet practical solution that leverages a world-renowned service with best-of-breed portable patient record solutions, providing immediate and practical solutions to address the needs of all stakeholders – patients, payers, and providers.

The Problem

The lack of timely access to a patient's medical information is both dangerous and costly, especially in the event of an emergency situation. This problem is all too apparent in the United States today with 85% of medical providers relying on archaic paper charts for record keeping, leaving the patient to recall pertinent medical information, often in times of crises. By some accounts, this poor access to information is to blame for nearly 100,000 patient deaths each year caused by medical errors (Institute of Medicine, 1997). In addition, information availability has often been blamed for inefficiencies in health care such as redundant testing and red tape. These inefficiencies combined with other problems contribute towards the \$1.6 trillion spent on healthcare each year.

Healthcare professionals depend on a patient's comprehensive medical record while providing patient care. This information is essential to support diagnosis and treatment, to protect the safety of the patient, to limit inefficient testing redundancies, and to both measure and improve quality of care.

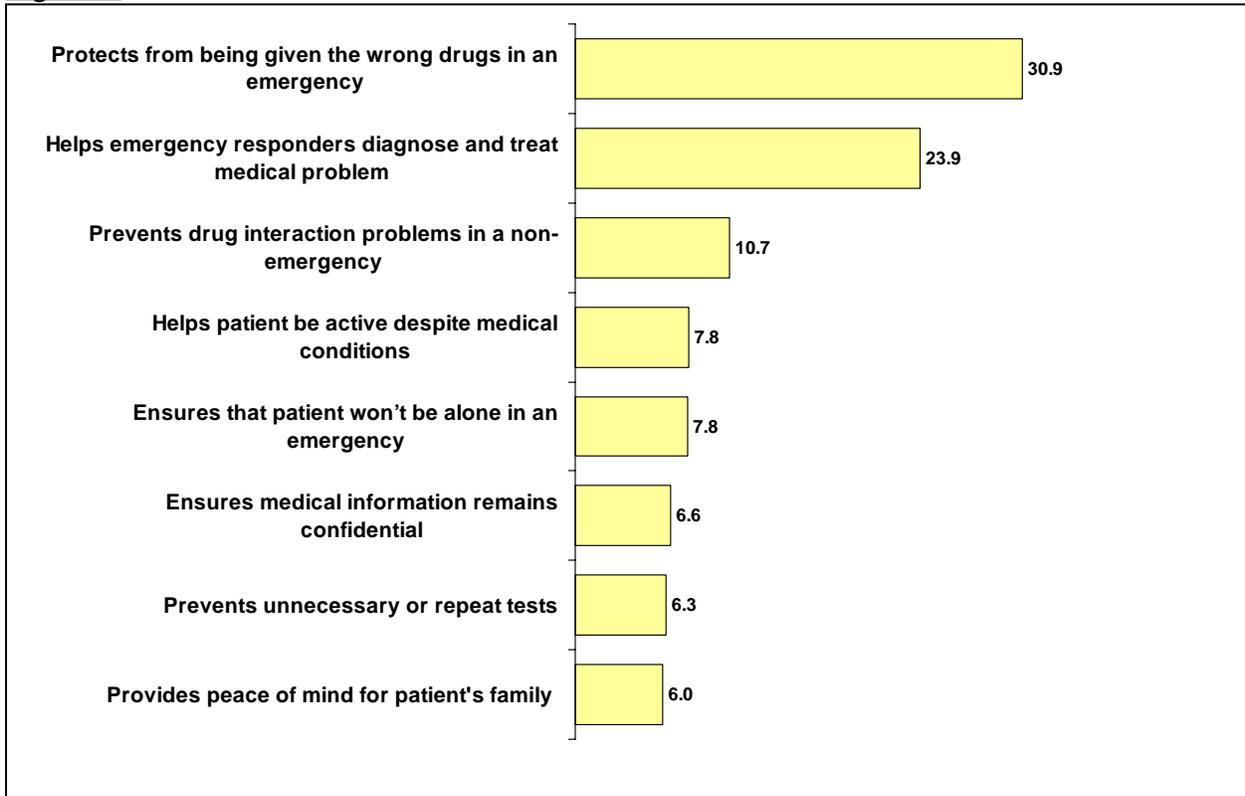
The current healthcare market is fragmented with minimal, if any, connectivity between these electronic record systems. In many large health systems, exclusive use of paper records compels the medical record department to physically mail a copy of the patient record to the requesting entity. The health system infrastructure has a long road ahead to enable seamless transfer of patient health records electronically between health providers. This problem is exacerbated when attempting to link health systems internationally so that patients have access to their records in foreign countries.

Demonstrated Need

MedicAlert®, founded in 1956, is one of the world's largest nonprofit membership organizations with a mission to protect and save lives. The MedicAlert® symbol is recognized worldwide for ensuring timely access of an individual's emergency medical information to health and safety professionals 24 hours a day anywhere in the world. MedicAlert® serves more than 4 million members around the globe.

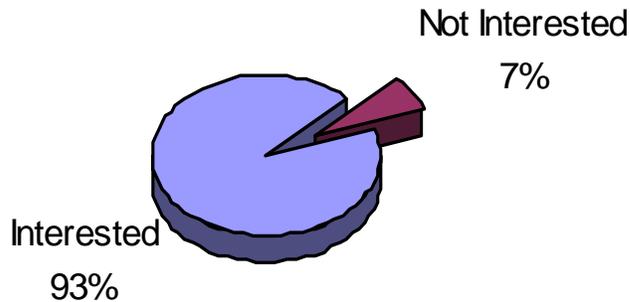
In a nationwide research survey conducted by Harris Interactive in 2004 on behalf of MedicAlert® Foundation, member respondents were asked to identify the top benefits of membership with MedicAlert®. As shown in Figure 1 below, it is apparent that patient safety and prevention of medical errors ranks as a top priority for patients.

Figure 1. Benefits of MedicAlert® Services to Patients.



Furthermore, 93 percent of physicians and specialists polled were interested in receiving medical information that a new patient stores with MedicAlert®.

Figure 2



Members were then asked about their interest in using portable devices, such as USB flash drives, as an additional means of communicating health information. Over sixty percent of members surveyed indicated that they would find such a device extremely or very useful.

The Solution



MedicAlert® and CapMed, A Division of Bio-Imaging Technologies, Inc. have teamed up to enhance the MedicAlert® trusted brand and service with comprehensive and portable personal health management solutions, such as the CapMed Personal HealthKey™, creating the MedicAlert® Personal HealthKey™.

The MedicAlert® Personal HealthKey™ is a secure and portable personal health record using USB-flash disc technology provided by SanDisk Corporation, the world's largest supplier of flash memory cards. Personal HealthKey™ enables MedicAlert® members to keep their complete personal health record, including medical images, password protected on their key chain. Emergency information is available when the MedicAlert® Personal HealthKey™ is plugged into any USB-enabled computer as well as the MedicAlert® 24/7 contact center accessible from anywhere in the world.

The HealthKey™ also enables members to manage other health and wellness information such as tracking and trending labs, immunizations, storing images, and receiving automatic reminders. Members will also have the opportunity in some instances to link personalized content and educational resources from MedicAlert® partners.

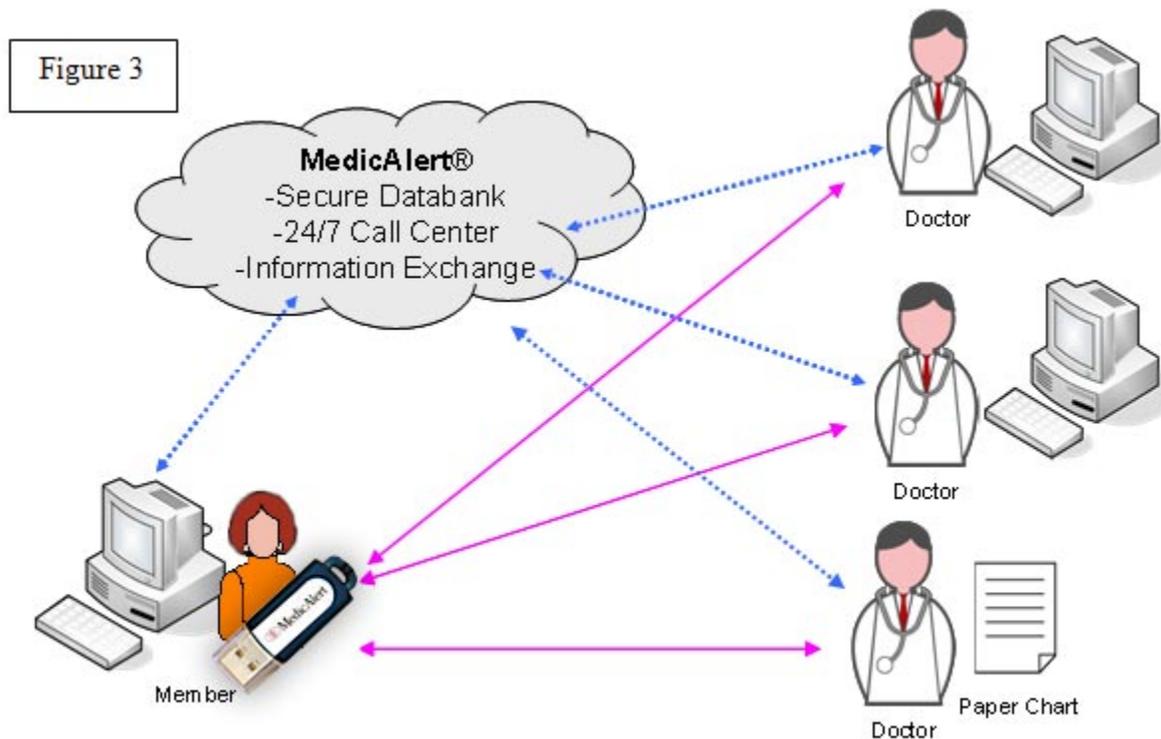
How It Works

When the MedicAlert® Personal HealthKey™ is plugged into a USB port on a desktop or laptop computer, the user is instructed to enter all pertinent information essential in an emergency situation via a user friendly interface. With minimal keying of information the user is able to populate their Personal HealthKey™. The user is then prompted to securely upload this information to the MedicAlert® database. This ensures that the personal information is always available by both the HealthKey™ and by contacting MedicAlert® [see Figure 3].

This MedicAlert® Personal HealthKey™ will carry the famous MedicAlert® logo that is instantly recognizable by medical personnel and first responders. The MedicAlert® HealthKey™, coupled with the online network of MedicAlert®, immediately gives a provider access to a patient's critical medical information. The MedicAlert® Personal HealthKey™ detects when it is plugged into the "home" computer or into an unknown computer. If plugged into an unknown computer, the HealthKey™ assumes that it is being inserted into a computer of an Emergency Room (ER) or an ambulance. The application will immediately pull up and present **only the critical medical information** such as condition, allergies, etc. that the patient/member has previously authorized. In addition to the Personal HealthKey™, clinicians

also have access to a patient's medical record via a 24/7 contact center enabling instant responses – even internationally.

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Although only a small percentage of clinics today are using Electronic Medical Record Systems (EMRs), an estimated 99% of providers have at least one computer in their offices. Therefore, broad use of electronic record systems by providers in the healthcare industry is not required for this short term solution to be effective.

Comparing this system with that of the traditional route in which the doctor relies on the patient's recall or on outdated medical charts, this method is far more efficient and safe.

Summary of benefits of the MedicAlert® Personal HealthKey™

- Patients can get started immediately by purchasing the MedicAlert® Personal HealthKey™.
- The HealthKey™ allows patients to create their own Emergency Medical Information file. The HealthKey™ will detect when it is inserted into an unknown computer, auto-play the application, and present the emergency medical information to ER personnel. The rest of the patient record is password protected.
- Patients can view and update personal medical information through the MedicAlert web portal and the Personal HealthKey™ MedicAlert® interface.
- The Personal HealthKey™ can be used to transfer patient information to new clinics even if the new clinic is not using any type of EMR.
- Updates to the patient record can be made through the MedicAlert® web portal or using the HealthKey™. Both options will seamlessly update the other.

Summary

In summary, the lack of complete and comprehensive patient medical records standards is a major constraint on the ability of our healthcare delivery system to enhance quality, improve productivity, manage costs, and safeguard data. As the government continues to facilitate the acceleration of standards development, and the coordination of electronic sharing of patient information, there is an enormous opportunity to provide practical and trusted solutions that can have an immediate impact on the communication of patient health information today. CapMed and MedicAlert are uniquely positioned to enable the sharing of patient health information today, while seamlessly integrating the solutions of tomorrow.

The MedicAlert® Personal HealthKey™ will assist with reducing healthcare inefficiencies, reduce the possibility of medical errors, and will also empower patients by making them more active partners in the management, communication, and maintenance of their healthcare.

For more information about MedicAlert® Personal HealthKey™, please contact:

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