Voice Documentation for Healthcare

An OAISYS White Paper

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INTRODUCTION

For more than a decade, healthcare operations in the United States have been urged by oversight bodies and related industries to migrate from the traditional paper-based method of recordkeeping to paperless or electronic documentation.

As with any change in how business is conducted and services are rendered, this has presented numerous challenges to the healthcare industry. Electronic medical records, called EMRs and often interchangeably referred to as electronic health records or EHRs, have taken hold in practices and hospitals across the country, although implementation has, to date, been slow and somewhat haphazard.

While healthcare operations have automated information such as notes on patient care, billing and scheduling, information generated from phone-based communications has remained largely relegated to the notepad method used since telecommunications became widespread more than a century ago.

This document will provide background on EMRs, explore voice documentation as a logical and beneficial component of a healthcare provider's electronic recordkeeping, discuss why traditional EMR implementation problems do not exist with voice documentation and demonstrate that regardless of an operation's degree of EMR deployment, voice documentation can be added immediately to any office without interference or procedural disruption.
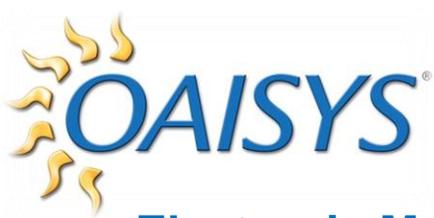
Electronic Medical Records – An Overview

Simply stated, an Electronic Medical Record is a medical record in digital format. These can include documents such as patient care notes, treatment records, billing statements, etc.; images such as x-rays and MRI outputs, or any other piece or type of patient information that is electronically created or transmitted from one authorized party to another.

Advantages of electronic records over traditional media include ease of collaboration among medical professionals, rapid transmission of patient data, ease of storage and retrieval, and centralization of patient-relevant information.

A key advantage of electronic media over other record formats is accuracy. Illegibility of notes and other information in the medical industry has long been a prevalent and troublesome issue. Standardized electronic forms and input methods reduce illegibility and the risk of medical error, contributing to more successful patient treatment outcomes[1].
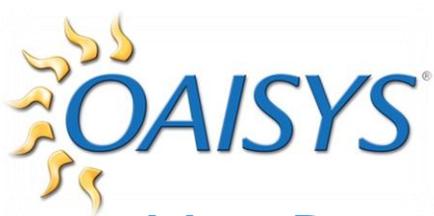
A Low Rate of Adoption

Unlike other industries that create extensive volumes of data, such as insurance and finance, the medical profession has been slow to adopt electronic records management systems. As of 2005, only one-quarter of primary physicians' offices had implemented a complete EMR solution[2].

There are many reasons for the industry's hesitancy, including:

- Interoperability challenges between systems
- Lack of standardization
- High software costs
- System complexity and installation difficulty

The US Veterans Administration's VistA EMR system is currently the largest in the nation. Using what is known as the Bidirectional Health Information Exchange protocol; the system is in use in all VA hospitals and has been targeted for integration in all Department of Defense healthcare facilities.

In addition, the protocol has been made available for download and use by non-VA-affiliated practices as well. For operations not using BHIE, there are currently more than 25 vendors of EMR systems in the US, with varying degrees of interoperability between systems[3]. Medical operations using the same or compatible systems experience significant benefits in billing accuracy and reduced service duplication. However, as noted, few of these systems can actually communicate with each other directly.

Contributing to low interoperability is a lack of established standards. At present, there are at least nine standardization bodies and eight proposed set of standards covering various aspects of healthcare operations[4].

Other EMR Difficulties

In addition to the national-level difficulties delaying widespread adoption of EMR systems, there also exist a host of practical, operations-level concerns that have not been adequately addressed across the board.

These concerns include, but are by no means limited to:

1. Sharing records between offices or facilities
2. Information access authorization
3. Adequate hardware resources
4. Set-up and maintenance costs
5. Resistance to change
6. Concerns of liability and information ownership
7. Ensuring information is unaltered

Voice Documents

The benefits to a healthcare organization of converting paper records to electronic formats are well-documented both in terms of operational efficiency and patient care. However, until now no effective solution has existed to apply those same benefits to telephone-based interactions.

In a busy medical office, it is exceedingly difficult to create and maintain adequate paper notes on telephone conversations. Writing notes by hand or typing them on a keyboard by necessity leaves out content and creates a high potential for error.

Call centers in medical-related fields, such as insurance, have used call recording technology for years to reduce their liability, ensure accuracy and evaluate agent performance. These solutions have been of great benefit in charting call volumes, training agents, resolving disputes and, in general, maintaining efficiency on an organization-wide level. Unfortunately, this "top-down" approach was not easily portable to employees and staff dealing with day-to-day information and patient interactions in the healthcare office itself.

Talkument™ voice documentation software from OAISYS provides medical offices with a complete solution to simply and efficiently document telephone conversations with patients, insurance companies and other healthcare providers. The solution is specifically designed to aid medical practices with improving cash flow, monitoring processes and patient service, and eliminating errors in communication. Tracer, the contact center management software from OAISYS, delivers the same capabilities of Talkument, but with additional advanced features including live call monitor, reports, evaluations, and desktop screen recording capabilities.

Rather than making call recordings available only to call center managers, OAISYS solutions create a voice document individual users can refer to, play back, and share with others they authorize. They can highlight portions of the call, insert comments for supplemental information, and provide a link to the call to another healthcare provider, billing agent, or facility to ensure patient needs are met.

How Voice Documentation Works

Healthcare offices handle countless telephone calls every day. Unless those calls are transcribed immediately by a trained stenographer, the only information remaining afterward is whatever notes the assistant, nurse or manager handling the call may have jotted down. Even if a stenographer is used, tone of voice and other useful subtext information is still absent.

OAISYS voice documentation solutions are deployed via an appliance or server-based delivery model, with hardware and software working in tandem to seamlessly integrate with business telephone systems. The software allows calls to be captured and stored as searchable, playable electronic voice documents. Now, rather than merely inserting notes into a file, the call is documented and stored in its entirety and can be organized into an electronic folder, searched for and retrieved by a combination of any number of search criteria, annotated and shared with those inside and outside the organization via a secure link.
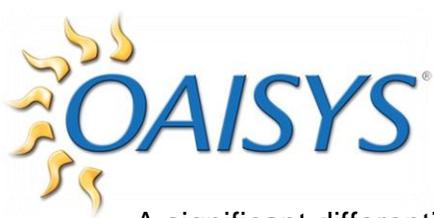
Voice Documentation and EMRs

By now it should be easy to see how voice documentation fits into an overall EMR strategy. Similar to replacing paper documents with electronic records, storing telephone conversations as voice documents facilitates easy collaboration; makes telephone conversations rapidly transmittable to other authorized users; reduces time for lookup and retrieval; and produces records that are securely stored on a centralized device. Voice documents are inherently 100 percent accurate, providing information exactly as it was originally generated.

Unlike the multitude of EMR solutions available for documents and images, voice documents do not suffer challenges in interoperability or standardization. To share a voice document, one simply identifies an authorized user and provides that person with a link to the needed voice document. Permanent system users will receive the link in their voice document inbox along with a helpful visual representation depicting all related data such as the parties of the call, comments, etc.

Temporary guest users will receive an e-mail with a link to the voice documentation system. Upon clicking the link, the voice document plug-in downloads to their machine, allowing them to access only the shared voice document. This is especially useful for those recipients outside the practice, facilitating improved communications between organizations such as insurance companies, pharmacists and other medical providers. All recipients need is a Windows^{TM} XP or Vista computer with Microsoft .NET framework 2.0 installed.

It should be noted that an external recipient never receives an actual copy of the voice document, only an access link. Recording playback is performed using encrypted media file streaming rather than by download. The voice document and its content never leave the central repository, providing security for the record itself.

Since OAISYS software works in a self-contained environment using .NET technology, there is no concern regarding outside standards. Rather than worrying about integrating voice documentation into a separate EMR solution, it can be considered as running parallel. All an office needs is a business phone system, an IP data network, and Windows on the desktop. There is not implementation lag or concern about cross-compatibility.

A significant differentiator between OAISYS solutions and EMRs for documents and images is the low cost of implementation and ease of installation of a voice documentation system. OAISYS software delivery methods are extremely cost effective, and most installations are completed in less than four hours when handled by a trained technician.

Unlike many document and image-based EMR solutions, OAISYS solutions avoid the four main pitfalls of interoperability, standardization, software cost, and system complexity.

Business Examples

Voice documentation functionality can have an immediate impact on healthcare operations; consider the following two everyday situations as examples.

A patient calls their physician's office to schedule an appointment. A staff member then calls the patient's insurance provider and receives pre-authorization for the visit. The patient arrives, receives service and leaves. When the billing cycle occurs, the insurance provider denies a portion or even the entire amount of the claim.

With OAISYS voice documentation functionality, the original telephone call is automatically organized into a folder specific to the insurance provider based on the number the staff dialed to make the call. The user now only needs to locate the call within that search folder, replay the call to verify the pre-authorization and then share a link to that voice document with the insurance provider's claims manager.

This all-too-common situation dealt with by medical offices is handled easily and efficiently, and because of the undisputable verification provided by the voice document, appropriate payment from the insurance provider can now be expedited.

In another situation, a patient may need specialized care, such as an imaging procedure. The physician's staff schedules an appointment for the following Tuesday at 11am, but when the patient arrives at the imaging lab, they have no record of the patient on the schedule. The patient then calls the doctor's office, upset that they have taken the morning off from work for the procedure.

A staff member at the doctor's office can rapidly retrieve the voice document of the scheduling call to confirm the time. If the scheduling error was made by the lab, this can be quickly and simply communicated by sharing the voice document with the scheduling staff at the imaging lab, who, based on their error, should attempt to accommodate the patient and find a way to work them into the schedule.
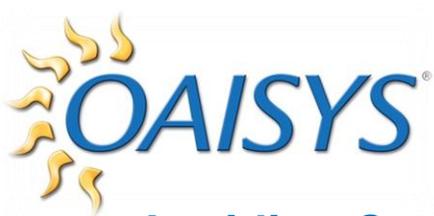
Avoiding Common Secondary Difficulties

Noted previously were seven secondary difficulties that have slowed adoption of document and image-based EMR solutions. The table below demonstrates how OAISYS solutions easily overcome these obstacles and bring immediate value to healthcare offices.

| Difficulty	OAISYS Solutions
Sharing records between offices or facilities.	Simply identify an authorized user and share a link to the voice document.
Information access authorization	OAISYS permissions-based architecture inherently manages access authorization.
Adequate hardware resources	The voice documentation solution is a self-contained system and the user experience relies on standard Windows desktop systems.
Set-up and maintenance costs	OAISYS solutions are provided as a one-time purchase with low ongoing maintenance costs for both hardware and software.
Resistance to change	OAISYS solutions offer an intuitive interface based on Microsoft Outlook™, which is already familiar to most users.
Concerns about liability and information ownership	The inherent 100 percent accuracy of a voice document eliminates accuracy-based liability concerns. Under HIPAA, patients own their EMRs. With OAISYS voice documentation solutions, those records are easy to provide to patients should they be requested.
Ensuring integrity/authenticity of information	Voice documents are securely stored on a central repository and use a dedicated file format paired with digital watermarking, making them extremely difficult to alter.
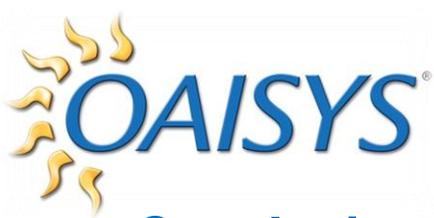
Conclusion

Until the introduction of OAISYS voice documentation solutions, a vital component of patient electronic medical record needs went unaddressed. Today, regardless of how much progress a healthcare provider may have achieved in deploying EMRs for their document and imaging-based records, they can immediately deploy voice documentation to satisfy the telephone-based record keeping needs of their operations and, most importantly, their patients.

Sources

1. Institute of Medicine (2001).Crossing the Quality Chasm: A New Health System for the 21st Century.The National Academies Press.
2. National Center of Health Statistics: Electronic Medical Record Use by Office-Based Physicians; United States, 2005.
3. Centers for Medicare and Medicaid Services Strategic Action Plan, July 2006.
4. Nainil C.Chheda (January, 2007)."Standardization & Certification: The Truth Just Sounds Different." Application of Healthcare Governance.
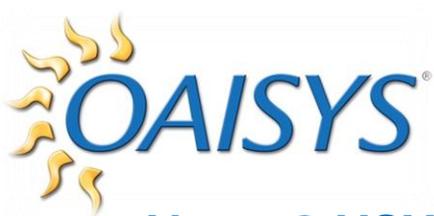
About OAISYS

OAISYS is a leading developer of call recording and contact center management solutions for a wide range of organizations, from small-to-medium sized businesses to multi-site large enterprises. The OAISYS voice documentation and interaction management solutions help companies within a variety of industries attract and retain customers by digitally capturing phone-based interactions for simple retrieval, playback and management. Compatible with leading business communications systems, OAISYS Tracer and Talkument applications help companies improve risk management, quality assurance, customer retention, dispute resolution, regulatory compliance and other critical business concerns.

OAISYS is headquartered in Tempe, Arizona, and OAISYS Limited is located in Cambridge, England.

To learn more about OAISYS, Tracer and Talkument, please visit our website at www.oaisys.com.   To schedule a live demonstration, please email se@oaisys.com or call us at 888.496.9040.

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