



# Talkument™ and Voice Documentation in Healthcare



A White Paper from OAISYS®



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 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 haphazard.

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

This paper will provide background on EMRs, explore Voice Documentation as a logical part of healthcare operations' electronic recordkeeping, discuss why problems in traditional EMR implementations do not exist in Voice Documentation implementation and how, regardless of an operation's degree of EMR deployment, Voice Documentation can be added immediately to any operation without interference or procedural disruption.

## Electronic Medical Records - An Overview

Simply stated, an Electronic Medical Record is a medical record in a 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 others is accuracy. Illegibility of notes and other information in the medical industry has been so long and so common a problem as to be cliché. Standardized electronic forms and input methods reduce illegibility and the risk of medical error, contributing to more successful treatment outcomes. <sup>[1]</sup>

## 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. <sup>[2]</sup>

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 U.S. 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 made 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 U.S., with varying degrees of interoperability between systems. <sup>[3]</sup>

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. <sup>[4]</sup>

## 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:

- Sharing records between offices or facilities
- Information access authorization
- Adequate hardware resources
- Set-up and maintenance costs
- Resistance to change
- Concerns of liability and information ownership
- Ensuring information is unaltered

## Voice Documents and EMRs

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

In a busy 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 as to what was said by whom 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.

The Talkument Voice Documentation solution represents shifts in both the approach to and execution of how telephone recording can be used

Rather than making call recordings available only to call center managers, Talkument creates 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 worker, billing agent or facility to ensure the patient's needs are met.

## How Voice Documentation Works

Healthcare offices take countless telephone calls every day. Unless those calls are transcribed on the spot by a trained stenographer, the only thing 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 subtext information is still lacking.

Talkument is a physical appliance that uses hardware and software to work with business telephone systems in order to capture calls and store them 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, retrieved by a combination of any number of search criteria, commented upon and shared with others within and outside the organization by a secure link.

## Voice Documentation and EMRs

By now it should be easy to see how voice documents fit into an overall EMR strategy. Like 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 delivered.

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, simply identify an authorized user and provide 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 useful 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 into the voice documentation system. When they click on the link the voice document plug-in downloads to their machine and lets them access only the target voice document. This is useful even if they are outside the organization, facilitating improved communications between organizations such as insurance companies, pharmacists and other doctors' offices. All they need is a Windows™ XP or Vista computer with Microsoft .NET framework 2.0 installed.

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

Since Talkument 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 in parallel. All an office needs is a business phone system, an IP data network and Windows at the desktop. There is no implementation lag or concern about cross-compatibility.

Another differentiator between Talkument and EMRs for documents and images is Talkument's low cost of implementation and its ease of installation. With an MSRP of less than \$10,000 Talkument begins to show return on investment almost immediately. Most Talkument installations are completed in less than four hours when handled by a trained technician.

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

## Business Examples

Talkument's voice documentation functionality can have immediate impact on healthcare operations. Take the two following 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 comes in, receives service and leaves. When the billing cycle comes around, the insurance provider denies some or all of the claim.

With Talkument, 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. All the user now needs to do is locate the call in that search folder, replay the voice document to verify the pre-authorization and then share a link to that voice document with the insurance provider's claims manager.

The all-too-common dispute is handled efficiently and the insurance provider can now more easily be pressed for payment.

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 11 a.m. When the patient arrives at the imaging lab, they have no mention of the patient on the schedule. The patient then calls the doctor's office, angry that he or she has taken the morning off of work.

A staff member at the doctor's office can simply pull up the voice document of the scheduling call to confirm the time. If the scheduling error was made by the lab this can be quickly communicated by sharing the voice document with the scheduling staff at the imaging lab, who, based on their error, will hopefully find a way to fit the patient in.

## None of the Secondary Difficulties

Noted above were seven secondary difficulties that have slowed document and image-based EMR solutions. The table below demonstrates how Talkument avoids these hindrances and brings immediate value to healthcare offices.

Difficulty	Talkument
Sharing records between offices or facilities	Simply identify an authorized user and share a link to the voice document
Information access authorization	Its permissions-based architecture inherently manages access authorization
Adequate hardware resources	The voice documentation solution is a self-contained appliance and the user experience relies on standard Windows desktop systems
Set-up and maintenance costs	Talkument is an inexpensive appliance with low ongoing maintenance costs for both hardware and software
Resistance to change	Talkument's easy to understand and navigate interface, based on Microsoft Outlook™, 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 Talkument, those records are easy to provide to patients should they need them
Ensuring information is unaltered	Voice documents are securely stored on the central appliance and use a dedicated file format, making them extremely difficult to alter.

## Summary

Until Talkument and the advent of voice documentation, a vital component of patients' electronic medical record needs went unaddressed. Today, regardless of how far a healthcare business may have come 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 operation and, most importantly, their patients.

## About OASYS

OASYS is a premier developer of customer interaction solutions for small to medium size businesses and call centers. Our solutions help companies attract and retain customers by digitally capturing customer interactions for simple retrieval, playback and management through intuitive interfaces to fit various users' needs. Our solutions integrate with leading telephone systems to provide a communications solution that enables companies and employees to communicate more quickly, easily and efficiently.

## Notes and References

[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*.



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