



# The Power of Intent: Why Words Matter in Medical Transcription



# Physician Intent

The life of a physician is not a boring one. On top of the dozens of things you are tasked with day-to-day, you also have to make sure to maintain an extremely concise and accurate standard of practice.

Documenting patient symptoms and health records has only become more important as the increasing regulations keep a close watch on medical practices.

Back in the day, physicians knew exactly what they were “meaning to say” and could easily document their own notes. But as patient volume increases, there just aren’t enough hours in the day to sit down and carefully transcribe every explicit detail of a patient visit.

This is why practices often rely on voice recognition technology to transcribe the data for them. Enter a new era of problems physicians never had to deal with before when writing their notes—**the issue of intent**.

In this whitepaper, we will be discussing:

**I**  
*Artificial Intelligence and its  
Use in Medicine*

**II**  
*Voice Recognition Interfering with  
Physician Intent*

**III**  
*Alternatives to Voice Recognition*

# Artificial Intelligence And Its Use In Medicince

Artificial intelligence (AI) is the implementation of a machine to imitate intelligent human behavior or, in this case, intelligent physician behavior. Artificial intelligence uses machine learning algorithms to input this information into EHR records.

Artificial intelligence is implemented across various industries. Here are some of the ways artificial intelligence is being used in the healthcare industry:

- Verifying insurance
- Virtual assistance services
- Using a robot to explain lab results
- Cybersecurity
- Disease detection
- Voice recognition services

As you can see, there are plenty of advantages to using artificial intelligence in medicine. However, what we see most commonly used in physician practices is voice recognition software. Voice recognition (VR) is a form of artificial intelligence that turns speech into text. In other words, the physician speaks into the computer and the computer transcribes what was said. This sounds like a great alternative to the physician's own manual transcriptions, however, there are also many reasons why voice recognition is falling short—and here's why:



# Voice Recognition Interfering With Physician Intent

## It Takes Very Little to Send Things Awry

Though voice recognition is certainly on the radar, it is far from being perfected—especially in the medical world. VR’s inability to pick up on context, slang, and colloquialisms make it impossible for the software to completely understand the intent of the physician. You simply cannot train a computer to understand the meaning of physicians—but humans do.

Example: “MS” can be used as an abbreviation for morphine sulfate or magnesium sulfate—two very different things. If a human were transcribing this abbreviation, they would be able to use context clues to accurately decipher which term the abbreviation stood for. Whereas, a machine is only able to understand explicit instructions.

Think of when you use your smartphone’s voice recognition to draft a text message or search for a restaurant. More times than not, your phone’s recognition service comes up with a slightly different result than what you intended.

This is because the software cannot properly detect pauses or proper accents and cannot process multiple speakers at once—resulting in a different result than what was intended.

## The Importance of Specifics in Medical Language

Medical language is unique, complete with internal synonyms, antonyms, and abbreviations. While machines are programmed to understand medical language, even a misplaced comma can mean a completely different diagnosis.

For example, a “trailing zero” (X.0mg) or lack of a “leading zero” (.Xmg) look pretty similar if you’re not looking too closely. However, both mean something very different. Something as small as a misplaced decimal point can be enough to make the entire dosage incorrect—implicating some very serious consequences on both the patient and doctor.

It is the medical transcriptionist’s job to correctly and perfectly document this information while understanding mispronunciations and accents—something a machine simply cannot do.

## VR Is Not Human

Although voice recognition is smart, it simply is not human. Meaning, voice recognition can't make decisions or have opinions about what it is transcribing. There are two ways in which VR algorithms differ from humans:

1. Voice recognition is literal: When you speak, the software does only what it's explicitly told to do. In other words, voice recognition can't adjust itself based on what was intended.
2. Voice recognition is a black box: The algorithms of VR are extremely precise, however, they cannot decipher the cause or why of the situation, which poses a huge threat to physician intent.

Typically when physicians implement voice recognition software into their practice, they believe it will save time and make their work easier. Voice recognition is often portrayed as a quick solution for transcription needs, however, this simply is not the case.

Due to its inability to pick up on important human language, it requires the work of a human to edit and check for any incorrectly transcribed dictation—resulting in more time required of physicians, not less.

Outsourcing for transcription services should be a way for physicians to save time, not something that takes away from it. See the next page to learn what some more efficient alternatives to VR are.



# Medical Transcription Services As An Alternative To Voice Recognition

Physicians have enough on their plates without having to worry about going through and editing data collected by voice recognition software. Instead of dealing with the hassle that comes with machine learning software, it may be time to consider medical transcription services.

A carefully trained medical transcriptionist can not only transcribe highly accurate notes, but they can also understand the intricacies of medical terminology—a luxury that artificial intelligence does not yet have.

In addition, trained medical transcriptionists handle the editing of their transcriptions themselves, saving even more time for physicians. Quality is everything when it come to dictating the proper notes from a doctor.

The use of electronic health record (EHR) software has streamlined documentation for health care professionals. Having an organized and easy-to-use EHR is essential for efficient patient care. And finding a company that can easily integrate into your electronic health record software is even better!

And there you have it! Physicians who care about the accurate documentation of their words are physicians who use medical transcription services. By beginning your search for the perfect medical transcription company to partner with, you're already on the way to achieving a more productive and efficient practice!

At DataMatrix Medical, we are proud to offer medical transcription services that save you time, allowing you to spend more time with your patients and less time in front of a computer.

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