Improve Your ICD-9 Coding With Voice-Recognition Macros

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A voice-recognition system can automatically insert the correct ICD-9 codes into your dictated note.

Many family physicians are already cutting their transcription costs by using voice-recognition software. My clinic began using Dragon Naturally Speaking (http://www.nuance.com) for our voice-recognition dictation system five years ago. Since then, we have found it to be accurate more than 98 percent of the time, and we have incurred no transcription costs. We recently started using the system to insert ICD-9 codes into our encounter notes. We've found that this saves staff coding time and improves coding accuracy for proper reimbursements. Here's how we did it.

Taking voice recognition to the next level

Every voice-recognition dictation program can respond to keyword commands the user speaks during dictation, although the implementation differs from system to system. Our system interprets a brief pause in the dictation (usually about 40 milliseconds) as a signal that the next word or phrase may be a command. If it recognizes one of the commands programmed into the system, it executes the command rather than adding the word to the dictation. I have created keyword commands that automatically insert diagnoses and their corresponding ICD-9 codes into my dictation. (If you already know how to make voice commands, then keep reading. If not, then take a look at "Setting up voice command macros" to the right before continuing.)

About the Author

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First, make a list of the diagnosis codes for which you'd like to have macros available. If you need a jump start, the *FPM* Short List of ICD-9 codes, available at http://www.aafp.org/x20096.xml, identifies 100 codes that are common in family medicine.

Once you have your list, you're ready to create a keyword command with a corresponding macro for each code. The macro will insert the diagnosis and its corresponding ICD-9 code number into your dictation. For example, you could program your system to insert "Hypertension, benign (diagnosis code 401.1)" whenever you speak the command "hypertension." For more examples, see the table on page 40.

The goal is to have your ICD-9 codes automatically listed in the patient-assessment section of your daily medical dictation, which should cut down on rejected claims. ➤

SETTING UP VOICE COMMAND MACROS

Each voice-recognition system has its own way of recording voice commands. You may want to consult the documentation or help file of your system if you are unfamiliar with the specific steps required. The general process, however, is pretty much the same from system to system: First, choose "Create a new command" or "Record a macro" (or something similar) from one of the menus at the top of your screen, and speak the command you want to use. Speak clearly and state your voice command as you normally would say that diagnosis (e.g., "hypertension"). Next, move down to the content section and accurately type in the text that will correspond to the verbal command (e.g., "Hypertension, benign (diagnosis code 401.1)"). To finish, click the "Save" button. Once you've recorded a command or set of commands, test them so you know you are ready to go when doing your daily dictation.

You'll never need to memorize another ICD-9 code.

If you find that you need to add additional voice commands, this can be done quickly. Once a voice command and its associated macro have been added, you should be able to use that command in any assessment section of any patient dictation in the future. The current crop of voice command recognition programs can handle several hundred voice commands.

Benefits

There are many benefits of taking your voice-recognition system to this next level.

1. You'll never need to memorize another ICD-9 code. And you'll only need to look up an ICD-9 code once to program its keyword command and associated macro correctly.

2. The macros are easy to edit. If you discover that you have programmed the wrong code number, or if the ICD-9 code changes later (with the addition of the infamous fifth digit, for example), you can easily edit the keyword's preprogrammed text.

3. Your coding staff saves time. Once you have a significant number of ICD-9 macros programmed, your coding staff should be spending less time looking up any dictated diagnosis codes or trying to guess which ICD-9 code you intended. I can now "find" a code faster by speaking the associated command than by looking it up; staff members even use me as a coding reference from time to time when trying to identify a code that another provider didn't dictate.

Downsides

Voice dictation has its faults, of course, leading to a few potential problems with this sys-

tem of inserting ICD-9 codes.

1. You'll need to memorize voice commands. The more voice-activated macros you set up, the more potential they have to save you time and improve your coding accuracy. Unfortunately, they'll take longer to memorize, too. However, I've found that a cheat sheet taped to my computer can get me started. After I've used a command a few times, I usually have it memorized.

2. You might insert codes accidentally. It's possible for the computer to mistake a voice command for a word being dictated or vice versa. In the latter case, a code might appear accidentally in the note. I have not run into this problem because I don't pause for the time required to signal a command while I am dictating the history or chief complaint unless I really want to use a command. That's not to say it will never happen. If a voice command is activated while you're dictating the current history portion, you can probably leave it in there if the diagnosis code information does not change the overall intent of the dictation text. Of course, as with any dictation, be sure to proofread your note for accuracy before signing off.

3. You could lose data if your computer crashes. Crashes are always a concern. However, the problem can be countered by backing up your voice recognition files, just as you would do for any other major computer files. With the right backup system, your voice recognition files should be easily retrievable.

The right fit?

This application of voice-recognition technology makes it possible to quickly complete your documentation and diagnosis coding. In most cases, I'm finished before the patient leaves our facility. If it fits with your work flow, this might just be one more reason to think about adopting a voice-recognition system.

Editor's note: For more information, see "Getting More From a Voice Recognition System," *FPM*, March 2001. **FPM**

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- It's possible to save staff coding time and improve coding accuracy by using your voice-recognition program to insert ICD-9 codes into encounter notes.

- ICD-9 codes can be inserted with keyword commands tied to macros; for example, you could program your system to insert "Hypertension, benign (diagnosis code 401.1)" when you pause for the required time and say "hypertension."

- Macros are easy to edit, allowing you to update your preprogrammed snippets of text as changes are made to the ICD-9 codes.

EXAMPLES OF MACROS WITH ICD-9 CODING

When you say this …	… you can have this appear in your dictation
"hypertension"	Hypertension, benign (diagnosis code 401.1)
"strep"	Strep throat (diagnosis code 034.0)
"bronchitis one"	Bronchitis, acute (diagnosis code 466.0)
"bronchitis two"	Bronchitis, chronic (diagnosis code 491.9)