



## Magic Pill Bottles

Picture it. You're sick; home with the flu. You drag yourself out of bed and make your way toward the medicine cabinet. Your eyes are burning. Reading through the blur of fever, you hope you chose the right bottle; the one with the stuff that will get you back on your feet.

Most of us so-called adults turn into big babies when we are sick. We want to be waited on. We want someone to bring us toast and fluff our pillows. So wouldn't it be nice to also have your prescription read to you?

A tool that can read the small print on the prescription bottle? It might sound far-fetched, but it's the way technology is heading.

Medication errors are a health issue. In 1993, more people died in America from medication errors (about 7,000) than from work-related injuries (more than 6,000), this according to "To Err Is Human: Building a Safer Health System," a report by Linda T. Kohn, Janet M. Corrigan and Molla S. Donaldson. The report goes on to state that medication errors account for one in 131 outpatient deaths and one in 854 in-patient deaths.

Prescription reading devices that can be used with any vial, bottle or package are now (or soon will be) available from at least two companies; Asko Corp. and EnVision America. Both offer voice output and market their products to the estimated 10 mil-

lion blind and visually impaired people in the United States,<sup>1</sup> not to mention dyslexic patients and those who are unable to read.

The Aloud Audio Labeling System by Asko Corp., currently available through RxPartners, is a replay unit. Prescription bottles are affixed to a plastic "puck" described by the company as an audio label. Pushing down on the bottle while it is in the replay unit activates the audio label for read back to the patient.

ScripTalk by Envision America, which recently completed a pilot study and should be available soon, uses what looks like a barcode reader that the patient passes in front of the prescription bottle's Smart Label (a microchip embedded on the prescription label) to hear a synthesized voice read the information on the label.

This means a client who is unable to read the writing on the prescription bottle, whether because of disability, illiteracy or the plain old flu, can now take his or her medication unassisted. It's as simple as holding the medicine in front of or on the reader and hearing the name of the medicine and dosing instructions being read to you.

These products appeal to a wider market than other "assistive" labels. Someone who is dyslexic might not necessarily reap benefit from a large-print label. And for someone with cognitive issues or who is unable

to read at all, a Braille label might not hold much promise.

With Aloud, voice output is created by a pharmacist when the prescription is filled, or by a pharmacy assistant and then verified by the pharmacist. Critics say the accuracy of the verbal output may be compromised because of human error. The pharmacist might say the wrong dosage or her voice might be difficult to understand.

ScripTalk might bypass this issue by using computer-generated recordings for its Smart Labels. Voice pitch and speed control can be manipulated to make the output easier to understand, which implies this method might not be foolproof, either.

Both products are lightweight and portable, and can be powered using AC/DC or battery power. This is a handy feature when traveling, making it possible to use the readers whether one is at home, in a hotel or camping.

As most universally designed products originate in the disability market, it may be a simple matter of time until no one has to struggle to understand the small print and multisyllabic gibberish on his medicine bottles. Until then, the ramifications of this first-generation product are unmistakable, and for someone who is otherwise independent but perhaps cannot read, the benefits are evident.

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<sup>1</sup> According to the American Foundation for the Blind