



Prescription labels: Do they serve their purpose?

AS PHARMACISTS, ONE OF OUR MAIN METHODS OF COMMUNICATING prescription information to our patients is through the use of prescription drug labels. Presumably, the label allows us to convey the physician's instructions for use and ensure that the patient takes the medication properly. A recent study in the *Annals of Internal Medicine* brings this assumption into question, as Davis and colleagues explore the relationship between literacy and misunderstanding prescription drug labels.¹

This study was designed to explore patients' understanding and their ability to demonstrate instructions given on prescription container labels. It involved 395 English-speaking patients from 3 indigent community populations in the US. The mean age of the respondents was 44.8 years and 67.8% were women. Among the participants, 19.0% read at or below a 6th-grade level (termed "low literacy") and 28.6% read at the 7th- to 8th-grade level (marginal literacy). Adequate literacy was defined as 9th grade and higher. The average Canadian is believed to read at about a Grade 8 or 9 level.²

With respect to patients' understanding of the instruction found on containers, the investigators found that 46.3% of the participants misunderstood one or more of the prescription drug labels. Looking at the results based on assessed literacy level, they found that 37.7% of those with adequate literacy, 51.3% of those with marginal literacy, and 62.7% of those with low literacy misunderstood the instructions. Most of the errors reflected an error in dosage (51.8%) or frequency (28.2%). Further analysis of these results indicated that low and marginal literacy were independent predictors of misunderstanding.

In a substudy of this research, patients who accurately read and reiterated instructions were assessed on their ability to demonstrate medication-taking. In this substudy, it was found that patients were better able to read label instructions than to demonstrate medication-taking. The differences related to literacy level ranged from 89.4% being able to read vs 80.2% being

able to demonstrate with adequate literacy; 84.1% vs 62.8% with marginal literacy; and 70.7% vs 34.7% with low literacy.

The results of this study increase our awareness of the importance of communication with patients in safe medication-taking practices. It is important to note that the patients in this study all spoke English as their first language, whereas this may not be the case in many of the communities in which we work. This population was also fairly young and taking an average of 1.4 prescription medications. The authors did find that literacy levels and

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patients' understanding were lower among those taking a higher number of medications and who were older. This is an important consideration when we reflect on our practices and the types of patients we see.

As pharmacists, we are often limited by the legal requirement that the prescription vial display instructions exactly as written by

the physician. However, our responsibility to patients is to ensure that they have an accurate understanding of their medications and oral instructions. Visual aids, along with other tools to assist with medication-taking, should not be underestimated in their value to assist in patient safety when it comes to taking prescription medications. This study truly opens our eyes to the assumptions that we may often make about patients' ability to understand and follow prescription instructions. ■

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References

1. Davis TC, Wolf MS, Bass PF 3rd, et al. Literacy and misunderstanding prescription drug labels. *Ann Int Med* 2006;145:887-94.
2. Rantucci M. *Pharmacists talking with patients: A guide to patient counseling*. Baltimore, MD: Lippincott, Williams & Wilkins; 2007.