

Improving Patient Comprehension: In the ED and after they (or you) have left.

Steven Marc Friedman, MD, MPH*

**Assistant Director (Research), Emergency Medicine, University Health Network, Toronto; Assistant Professor, Faculty of Medicine, University of Toronto.*

Abstract: Two out of five Canadians would have difficulty reading this sentence or the label on a prescription bottle. In this review, the author describes the prevalence of poor patient literacy and comprehension problems in Emergency Departments across North America. Strategies to improve patient comprehension are outlined. Additionally, -IJEM introduces an on-line patient-handout tool.

MeSH: Patient Comprehension, Compliance, Literacy, Emergency

Emergency Departments (EDs) worldwide are increasingly shifting treatment from the hospital to the ambulatory setting. A patient who, ten years ago, would have been admitted for chest pain might be discharged today with a prescription for platelet inhibitors, an appointment for urgent follow-up at the cardiology clinic, and detailed instructions listing indications to return to the ED. Failure to follow discharge instructions might have greater consequences today than ever before. Coupled with this shift of care to ambulatory settings, globalization and immigration have created scenarios where an emergency physician (EP), in Canada or Israel, will routinely encounter patients who are not functional in the local language. Therefore EPs have to ask themselves the question: do our patients really understand our directives? How can we improve patient comprehension and compliance?

Patient Literacy and Comprehension in North America

Two out of five Canadians would have difficulty reading the above sentence or the label on a prescription bottle. Canadian groups most vulnerable to low literacy are the poor, those of Aboriginal ancestry, immigrants whose native language is neither English nor French, people in rural and isolated communities, and persons with certain disabling conditions.¹ North American rates of patient noncompliance with ED discharge instructions are reported to range from 20-50%. Poor comprehension of instructions is a major contributor.^{2,3}

Research has shown that reading level is typically about three to four grades below educational level. In a U.S. study, Powers demonstrated that although the median education level of emergency department patients was 10th grade, more than 40% couldn't read at the 8th

grade level, and at least 20% were considered functionally illiterate.⁴ Hospital and commercially generated patient education materials, however, ranged from 8th to 13th grade level. Comprehension of consent forms for surgery required at least an 11th grade education. The authors concluded that more than 50% of ED patients may read below the level required to understand standard discharge instructions.⁴

A recent prospective study in Toronto tested patient reading skills and comprehension of ED discharge instructions, and about two weeks later assessed patient compliance. Approximately 60% of subjects demonstrated reading ability at or below a Grade 7 level. Comprehension was positively associated with reading ability ($r = 0.29$, $p = 0.01$) and English as first language ($r = 0.27$, $p = 0.01$). Reading ability was positively associated with years of education ($r = 0.43$, $p < 0.0001$) and first language ($r = 0.24$, $p = 0.03$), and inversely associated with age ($r = -0.21$, $p = 0.05$). Non-English first language and need for translator were associated with poorer comprehension of discharge instructions but not related to compliance. Compliance with discharge instructions was correlated with comprehension ($r = 0.31$, $p = 0.01$) but not associated with age, language, education, years in Anglophone country, reading ability, format of discharge instructions, follow-up modality or having a family physician. A key conclusion of the study was that in light of the fact that comprehension was the only factor significantly related to compliance, future interventions to improve compliance with ED instructions would be most effective if they focus on improving comprehension.⁵

Literacy Problems and Language Mismatch

Lower literacy patients are more likely to take words literally, to read slowly, to sound out letters in words, and to skip uncommon words. The low literacy patient will often have difficulty finding key concepts; he or she may skip parts of the page and focus on details, without prioritizing key points.⁶

Language mismatch - the difference between text and patient reading levels - has often been associated with words of concept, category and value judgment. These items must be simplified

or described if the patient is to understand his or her situation and follow instructions correctly. Examples of concept words are "incidence," "congestive heart failure" or "disease prevalence." Their meaning is elusive to a large segment of the population, as are category words defining class, such as "ACE inhibitor" and "NSAID." In addition, value judgment adjectives must be clarified, as their implication is different to different people -- e.g. "excessive" bleeding and "significant" change.⁷ Medical jargon should always be limited. I frequently find my interns using such Latin shorthand as p.r.n. and t.i.d. on handwritten patient instructions. There are few Latin speakers presenting to any ED these days.

Strategies to Improve Comprehension

Several strategies are suggested to aid comprehension. It helps to present first the most important instruction.⁸ Explain to patients their condition. Using lay language, demonstrate key points and then summarize directives at the end.⁸ Try combining easy-to-read written materials together with oral instructions, and include culturally sensitive graphics to encourage desired behavior. Family members and care givers may be included in patients' education process.⁹

Doak et al offer specific suggestions for improving verbal and written communication.¹⁰ Give an agenda and limit new information to key points. For instance: "First, I'll go over the results of your heart tracing and blood tests. Then I'll discuss other tests that I would like to do, and last we will talk about the best possible treatment."

Partition long lists. Small bits of information are easier to remember, and offer the opportunity for feedback. After explaining one of various therapies, say, "Now tell me, do you understand this option?" This conveys physician concern, while reinforcing patient comprehension.

Present the context first, then the details. It's better to state, "Signs of a heart attack include chest pain and shortness of breath," rather than, "Symptoms such as chest pain and dyspnea may be indicative of an acute coronary syndrome."

Refer to pictures, models, and visuals.

Make instructions interactive. Consider posing questions that visualize the situation: "So if your chest pain happens at rest, what should you do?"

Tips for better written material

While there's little substitute for human interaction when communicating with patients, written information for later review is essential.

Write the patient's name on the front of any handout -- this will personalize the information.

Underline key points and highlight important details in the person's presence.

Tailor the message, structure and images to the individual's needs and characteristics. With computers, it's now easy and time-efficient to do so. Provide information in context -- if you normally print out blood tests, explain that a single result that's slightly out-of-range might not be clinically meaningful.

Clarify with illustrations. Show enough of the human figure for instant recognition of the message. Use an arrow or color to direct the reader to the main point. This has been shown to improve patient comprehension.¹¹

Ask questions. Simply saying "do you understand these instructions?" is not a reliable way to confirm the individual's assimilation of the facts. Ask them to pretend that you are a family member who was not present in the ED and the patient has to explain to him/her the problem.

Conclusion

Even people with low literacy skills generally have adequate intelligence to understand their condition. With minimal additional effort, patient comprehension can be easily improved. It's important to link new information to their experience, and to make it relevant to them. Pay attention to your words and how you deliver them. Involve other family members. Combine oral explanations with visuals and written materials. Always leave the patient something in writing to fall back on. Use an interactive style

that confirms that the individual has understood your message. Give details. Allow time for the information to be consolidated. Your patient will not only better follow your instructions, but will also understand that you care.

Addendum:

The IJEM Patient Handout Resource

IJEM is pleased to introduce a portal to multilingual patient handouts. The Journal's Website (www.isrjem.org), has a "Patient Handouts" section on the blue, left hand column. Alternatively, this page can also be accessed directly at www.isrjem.org/patient.htm. The patient handout portal offers links to printable patient handouts in languages ranging from Amharic to Vietnamese. Some of the English language utilities are customizable, and as well provide referenced, evidence based medical advice written at a layperson's level. The portal also offers support for communication with patients who have low vision or impaired hearing. IJEM is interested in compiling further patient resources that have been found helpful; Please contact The Journal at: webmaster@isrjem.org

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Correspondence: Dr. Steven Marc Friedman
Emergency Department,

Toronto General Hospital
200 Elizabeth Street
Toronto, Ontario
M5G 2C4 Canada
Email: steven.friedman@uhn.on.ca