Creating Written Patient Education Materials*

Marie Ivnik and Maureen Y. Jett

Chest 2008;133;1038-1040
DOI 10.1378/chest.07-3040

The online version of this article, along with updated information and services can be found online on the World Wide Web at: http://www.chestjournal.org/content/133/4/1038.full.html
Creating Written Patient Education Materials*

Marie Ivnik, BSN, MEd; and Maureen Y. Jett, MLS

(CHEST 2008; 133:1038–1040)

Key words: health literacy; patient education; written patient education

How would you, as a health-care provider, create relevant written educational materials for your patients? The following important issues need to be considered in the process of developing a pamphlet, leaflet, or handbook (audiovisual projects have additional considerations). Who needs to be involved (collaboration)? Why is the pamphlet needed (purpose)? What messages need to be conveyed (content)? And how will the publication look (design)? These are important concepts because people’s ability to understand health and medical issues and directions for care are related to the clarity of the communication.1

Collaboration

When developing patient education materials, it is imperative to consider the participants who should be involved in the process. At our institution, patient education materials are generally initiated by physicians or nurses, who identify a need for the materials. If you are initiating the project, ideally a professional writer would assist you and your colleagues (who have the expertise in clinical content) to ensure comprehension by the patients. The medical team members may also include anyone who provides educational encounters with patients such as physician’s assistants, nurse practitioners, or registered nurses.

If illustrations or graphics are needed to enhance the messages or instructions, it helps if an illustrator can provide customized visual materials. The development process as well as the continuous review of drafts should include all involved parties in order to guarantee the inclusion of essential ideas and topics.

Purpose

Print media for patients are created for identifiable reasons. Their purpose can be to describe a specific procedure, assist with disease management, or facilitate decision making by the patient and the patient’s family.

• A pamphlet the function of which is to describe a procedure, test, or surgical operation would include preparation instructions, an explanation of the procedure, and postprocedure self-care tips (eg, you may want the patient with COPD to have a better understanding prior to undergoing a pulmonary function test).

• Written materials that focus on managing a specific condition such as asthma could convey key details about the disease, diagnostic tools used, therapies, and health management suggestions to improve quality of life (eg, how to manage asthma triggers, how asthma affects the airways, exercise and asthma, or drug therapies).

• Skill-specific materials would focus on instructions (eg, detailed instructions, with illustrations, could outline the correct use of a metered-dose inhaler).

• A written decision-making tool would explain the benefits and risks of various treatment modalities in order to assist the patient in determining whether a particular therapy is suitable for them (eg, a pamphlet thoroughly explaining lung volume reduction surgery would assist the patient in deciding whether or not to proceed with it).

*From the Section of Patient Education, Mayo Clinic, Rochester, MN.

The authors have reported to the ACCP that no significant conflicts of interest exist with any companies/organizations whose products or services may be discussed in this article.

Manuscript received December 19, 2007; revision accepted January 3, 2008.

Reproduction of this article is prohibited without written permission from the American College of Chest Physicians (www.chestjournal.org/misc/reprints.shtml).

Correspondence to: Maureen Y. Jett, MLS, Section of Patient Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; e-mail: jett.maureen@mayo.edu

DOI: 10.1378/chest.07-3040
CONTENT

In developing content, it is standard practice to provide the patient with what they “need to know” rather than what would be “nice to know,” but sometimes it is difficult to make that distinction. For example, when helping a patient in their understanding of a pulmonary function test, it would be of paramount importance to tell them where they must go to have the test, details of the test, and an explanation of results and follow-up. However, there is no benefit in including information about the calibration of the machine, or how the test results are obtained.

Use personal pronouns when writing for patients and families (eg, you, I, or we). Write as if you are speaking to the patient. For instance, change the statement “COPD patients should call the doctor if they have these symptoms” to “If you have these symptoms, call your doctor.”

Use the active voice. This is less formal and more direct. Instead of writing “The short-acting (albuterol) inhaler should be used before exercising,” write “Use your short-acting (albuterol) inhaler before you exercise.”

Be sure to explain medical jargon. This can be done in the body of the material or added in the back as a glossary or word list. If it is a term you use regularly with patients, add an explanation using more patient-friendly words. Once defined, you can choose to use the term you will most frequently be using to discuss this condition with the patient, or continue using nontechnical terms. For example, “COPD includes chronic bronchitis (irritation of the breathing tubes), emphysema (damage to the air sacs), and asthma (a spasm of the breathing tubes).”

Key messages are a great way to start a pamphlet. Such messages provide the patient with the most important issues, and these can be expanded on throughout the pamphlet. Another option is to include these key points in the conclusion.

When skills or procedures are important to learn, write them in a step-by-step manner, using illustrations as needed to explain the steps. Break up each step, do not combine steps. For instance: “When using an inhaler, (1) sit, or stand up straight, (2) shake the inhaler, (3) attach spacer tube, (4) exhale . . . .”

Understanding the problem of health literacy is crucial when writing for patients. It is the single best predictor of an individual’s health status, stronger than age, income, employment status, educational level, and racial or ethnic group. Although it is not always clear who is not health literate, health literacy is increasingly vital to help people navigate a complex health system and better manage their own health.

Differences in the ability to read and understand materials related to personal health as well as navigate the health system appear to contribute to health disparities. People with low health literacy are more likely to report poor health, have an incomplete understanding of their health problems and treatment, and be at greater risk of hospitalization. The average annual health-care costs of persons with very low literacy (reading at grade two levels or below) may be four times greater than for the general population. An estimated 75% of persons in the United States with chronic physical or mental health problems are in the limited literacy category. People with chronic conditions, such as asthma, hypertension, and diabetes, and low reading skills have been found to have less knowledge of their conditions than people with higher reading skills. One study at a women’s health clinic found that, among patients considered to have low literacy, physicians identified only 20%. This emphasizes the need for awareness of this condition by physicians.

Substantial evidence now exists on the link between literacy and health outcomes. Investigators use assessment tools like the Test of Functional Health Literacy in Adults (or TOFHLA) and the Rapid Estimate of Adult Literacy in Medicine (or REALM) to measure patients’ ability to read and understand information that they need for their health care or health education. Information should be written in plain language (ie, sixth grade level or below) and should be free of most medical terms/jargon. A significant number of words with three or more syllables in a pamphlet will negatively impact the comprehension of the material by the patient. If a term is longer than three syllables, and is likely to be unfamiliar to a patient, it needs to be defined. Consider using one of the available formulas to determine the grade level of your pamphlet (eg, Simple Measure of Gobbledygook; the Gunning fog index, which shows the level of education required to read and understand a given text; or the Fry Readability Formula). “Most written materials intended for patients are written at a difficulty level that exceeds the reading skills of average Americans.”

DESIGN

How the pamphlet looks will increase comprehension. Use the following principles for the design and layout:

• White space allows the eye to be drawn to text that is important and reduces the “crowded” look, which may intimidate the patient.
• For text, use a font type that has a serif (serifs are nonstructural details on the ends of some of the
strokes that make up letters and symbols) such as Palatino or Times Roman for easier readability. Sans-serif (without serif) fonts (e.g., Arial or Helvetica) can work for headings and titles.

- The font size should be at least 12 points.
- Color can highlight important messages and is great for anatomy, but is not always necessary.
- Graphics, photos, and illustrations (a picture is worth a thousand words) should be used, but they should be relevant and enhance the text, not clutter it.
- Bulleted items draw attention to specific/key messages.
- Use bold type only for important messages or to direct readers to the glossary for specific terms.
- Place any key messages in a box in the text.
- The body of the material should have contrasting colors, like white background with black type, not tan background with brown type.

**Take-Home Message**

The suggestions we have put forth are an adequate starting point for your consideration in developing patient education materials. Patient education materials can enhance patient compliance, can improve the effectiveness of care, and can save valuable time in explaining conditions to patients. Please consider using the resources listed below, and the many other fine books, articles, and research that are available.

There are many excellent materials in existence that may fulfill your patient education needs. Therefore, it may be to your advantage to assess these existing resources, some of which may be accessed through Web sites such as MedlinePlus.gov.

**Resources**

**Web Sites**

**Books**

**References**

2. Weiss, B. Health literacy and patient safety help patients understand. Chicago, IL: American Medical Association and American Medical Association Foundation, 2007; 8–15
3. Rootman I, Ronson B. Literacy and health research in Canada: where have we been and where should we go? Can J Public Health 2005; 96(suppl):S62–S77
## Creating Written Patient Education Materials

Marie Ivnik and Maureen Y. Jett

*Chest* 2008;133; 1038-1040

DOI 10.1378/chest.07-3040

This information is current as of September 10, 2009

<table>
<thead>
<tr>
<th>Updated Information &amp; Services</th>
<th>Updated Information and services, including high-resolution figures, can be found at: <a href="http://www.chestjournal.org/content/133/4/1038.full.html">http://www.chestjournal.org/content/133/4/1038.full.html</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>References</td>
<td>This article cites 6 articles, 3 of which can be accessed free at: <a href="http://www.chestjournal.org/content/133/4/1038.full.html#ref-list-1">http://www.chestjournal.org/content/133/4/1038.full.html#ref-list-1</a></td>
</tr>
<tr>
<td>Open Access</td>
<td>Freely available online through CHEST open access option</td>
</tr>
<tr>
<td>Permissions &amp; Licensing</td>
<td>Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: <a href="http://www.chestjournal.org/site/misc/reprints.xhtml">http://www.chestjournal.org/site/misc/reprints.xhtml</a></td>
</tr>
<tr>
<td>Reprints</td>
<td>Information about ordering reprints can be found online: <a href="http://www.chestjournal.org/site/misc/reprints.xhtml">http://www.chestjournal.org/site/misc/reprints.xhtml</a></td>
</tr>
<tr>
<td>Email alerting service</td>
<td>Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.</td>
</tr>
<tr>
<td>Images in PowerPoint format</td>
<td>Figures that appear in CHEST articles can be downloaded for teaching purposes in PowerPoint slide format. See any online article figure for directions.</td>
</tr>
</tbody>
</table>

Copyright © 2008 American College of Chest Physicians