PATIENT EDUCATION MATERIALS

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**Why should we use patient education handouts with patients?**

- **Memory** — If there are a number of issues to be related to a patient, it is best to both tell and write them down or provide a handout. The average person can only retain 2 or 3 items in a set of instructions if presented with these verbally. Providing written instructions and explanations as well as verbal, can greatly increase their understanding and retention of multiple facts or instructions.

- **Anxiety** — The memory capacity of patients is reduced by the general anxiety experienced by many patient during a doctor's visit. Add to this “bad news” or a new condition with which they are unfamiliar, and their capacity for understanding and retaining decreases significantly.

- **Hearing** — Many of your patients may have hearing loss, especially if they are older. Some will nod knowingly to all you say to them, while not hearing or understanding half of what you are telling them. When asked by their spouse or children what the doctor said, many times they are unable to tell them. This results in unnecessary calls to the office as well as poor treatment compliance and outcomes.

- **Demand management** — This is what physicians do when they communicate to their patients “when to call.” “If your temperature gets higher than 102°...” “If your incision does not stop draining after 2 weeks...” Many times, especially post op or with chronic disease management, these options can be numerous as well as serious and should be provided in written format as well as verbally.

- **Communication** — The reason teachers use visual stimulation (PowerPoint) while giving lectures is that we recognize the improvement in communication and retention of facts when accompanied by written words and visual stimuli. If used properly, a handout can guide an encounter, and can be used to facilitate communication and assess understanding. Images and videos, especially, increase communication and understanding.

- **Complexity** — The more complex a patient’s problems are, the more likely handouts of some sort can help them understand and manage their conditions. Consider the patient with multiple chronic problems, poly-pharmacy, and pre-senile dementia. A grid-like schedule of when to take their medications can be vital for achieving their compliance with your treatment plan.

**What are some common handouts found in physicians offices?**

- Prescription refill requests
- Referral requests
- How to help your doctor run on time
- The role of midlevel providers
- Doctors' availability after hours
- Procedures for school physical appointments
- Medication Schedule
- Wound Care
- Lists of Community Resources
- Immunization Schedule/Record

A number of these can be found online at the AAFP Family Practice Management Journal website in a resource called **FPM Toolbox**. 
These commonly used forms should be customized to include contact information for the clinic or hospital.

The medication schedule at right should have a place to identify the patient’s pharmacy and the pharmacy phone number as well. A list of the patient’s prescription medications with dosage can be printed on the back of these schedules in case of an emergency room visit or illness when traveling.

Medication Schedule

<table>
<thead>
<tr>
<th></th>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medications</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dosage</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


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Wound Care Instructions

- Apply Oxomet, which has been prescribed by physicians, after cleaning. Protect the wound as needed.
- Silk Strips: Do not get silk strips wet. If the edges come up they can be trimmed. The strips should remain in place for 5-7 days. If the strips peel off after that time, do not reapply.
- Mouth uniforms: Avoid hot or spicy foods and drinks. If child is old enough to spit out, rinse the mouth after meals with a mixture of ½ teaspoon of table salt in a glass of lukewarm water.


Wound Care Instructions from Miami Children’s Hospital

WHERE DO YOU FIND PATIENT EDUCATION MATERIALS?

COMPUTER BASED HANDBACKS —
There are a number of highly regarded collections of patient education materials that have been available for stand-alone computer systems for years. They include both English and Spanish versions of most of their materials. These include:

- Clinical Reference Systems (now at Access Medicine)
- AAFP Handouts (now found at Familydoctor.org and in ClinicalKey)

These are now being licensed to and included in electronic medical record systems, hospital information systems, and various web sites. The advent of the Web has reduced or eliminated the need to buy a CD containing handouts and preprinted handouts. There are a number of new companies developing patient education materials that include video, audio, interactive gaming-like tutorials and apps to help patients manage chronic disease, understand their upcoming procedure and so forth.

WEB-BASED MATERIALS —
The number and variety of web-based patient education materials has exploded in the last few years. Many of these resources are available to patients who are Internet savvy without subscriptions, increasing the disparity between affluent and underserved populations in both health literacy and access to information. Examples of the free, online patient education sites provided by government agencies are:

- MEDLINE Plus at the National Library of Medicine
  http://www.nlm.nih.gov/medlineplus/
  Includes reviews, fact sheets, and detailed drug monographs selected by librarians at the NLM, that provide comprehensive coverage of diseases and health topics for consumers plus interactive modules for patient education that explain conditions or procedures in easy-to-read language with animated graphics.

- NIH On-line Consumer Health Handouts
  http://health.nih.gov/
  Fact sheets collected from various institutes of the NIH that include detailed, multi-page pamphlets on various disease topics. The documents are appropriate for print distribution.

- CDC Health and Safety Topics
  http://www.cdc.gov/az
  Each topic has a mini-site with educational materials, statistics, advisories, and research agendas, as well as links to other major web-sites on the topic. This is designed to be used by patients to research their conditions.
**Web-based Materials**— continued

Handouts can be printed by the physician or nurse during the patient encounter. However, many physicians are placing a computer with a broadband internet connection in their waiting rooms or in a designated patient education area in their clinics so that patients who do not have access to these materials at home can sit and read about their conditions online and ask questions of their physician. Medical professional associations and health care management corporations are developing materials for patients to access on their web sites to increase their knowledge of their conditions as well as provide patient education handouts. These sites have numerous handouts on all topics including diseases, drug instructions, behavior modification, and healthy living. Here are some examples of these types of sites:

- **Familydoctor.org** from the AAFP  
  A large collection of physician-written, carefully-maintained, regularly reviewed and updated patient handouts which include reviews of common health problems, tips for healthy living, drug information, herbal & alternative remedies, and a dictionary. Includes Spanish versions.

- **HealthyChildren.org** from the AAP  
  [http://healthychildren.org](http://healthychildren.org)

- **Orthopedics Handouts** at AAOS  

- **MayoClinic.com**  
  Includes consumer resources on Disease and Conditions, Drugs, treatment decisions, and healthy lifestyles.

- **Health Library** from the Nebraska Medical Center  
**Web-based Materials— continued**

For patients with chronic diseases, there are a number of associations and foundations that contain free useful consumer information such as the American Diabetic Association ([http://www.diabetes.org/](http://www.diabetes.org/)), the American Lung Association ([http://www.lungusa.org](http://www.lungusa.org)), the Arthritis Foundation ([http://www.arthritis.org/](http://www.arthritis.org/)) and the American Academy of Allergy Asthma & Immunology ([http://www.aaaai.org/](http://www.aaaai.org/)). These sites can contain:

- Handouts and Videos
- Support groups
- Local chapter locations
- Discussion lists
- Help in finding a physician

A good way to find these organization web sites is Healthfinder.gov, a service of the Department of Health and Human Services. Look up a disease and condition in their Health A to Z section. The results will link you to various associations and agencies that support that condition.

**Medical Library Subscription Patient Education Resources —**

The FSU Medical Library has subscribed to respected collections of patient education materials such as: Patient Education Reference Center, ClinicalKey and Pediatric Care Online. In addition, Epocrates Online’s drug monographs contain printable patient handouts. The patient education materials are located under the Clinical Tools, on the library web page by selecting either “For Clinicians” or “For Consumers.” The consumer site links to many of the free access patient education resources recommended on the previous pages.
Patient Education Reference Center (PERC) - Comprehensive collection of evidence-based patient education handouts in English and Spanish. Includes customizable diseases and conditions, procedures and lab tests, discharge instructions and drug handouts. You can search, customize, save, and print handouts. Link directly from Dynamed. Written at 3rd to 7th grade level.

Epocrates Patient Literature Library - There are patient education handouts in English and Spanish in the Drugs section of Epocrates for most of the drugs listed. The reading level of these handouts may be too high for many patients. However, recently they have added a Patient Literature Library under Patient Resources that contains curated materials from multiple reliable institutions and agencies that are easy to read.

Pediatric Care Online - From the AAP, under Tools are attractive Patient Handouts in PDF format like the one at right.

Clinical Key - Over 1,500 patient education handouts in English and Spanish. These handouts can be customized with contact information and special instructions for the patient. They can also be emailed to the patient from the site.

Access Medicine - Several thousand PDF handouts broken down into Adult, Acute, Medications and Pediatric topics. These are produced by McKesson. They are written at a reasonable 7th-8th grade reading level, and frequently updated. In addition to English and Spanish, some handouts are provided in multiple languages like French, Chinese, Russian, and more. Because they are PDFs, they are not customizable.
Using Patient Education Resources in Your Practice

Depending on your chosen specialty, it will be helpful to review a number of sites that might be applicable to your patients and bookmark them for future use. A number of physicians create their own clinic web sites such as the one at right or have patient web-portals and link to applicable and reliable patient education web-sites, creating an online resource for their patients.

Sites should be evaluated for the following:

- Ease of use
- Quality and accuracy of handouts (if you agree with the advice)
- Reading level of handouts
- How many handouts are available
- The type of patient for which the site is appropriate

As you review a patient education site, decide whether you might want to use a site, and if so, bookmark the site.

YouTube.com videos can also be of value, especially for understanding procedures or explaining disease processes. You will need to evaluate and select ones to use and can add these to your clinic web site or bookmark.

Educating Patients to Find Reliable Information Online

Patients will bring in articles and information that they have found online about treatments and preventive measures which may conflict with your selected strategies, as well as national guidelines. It will be up to you to suggest better web sites as well as a criteria for evaluating the reliability and validity of information online.

There are a number of resources that will help you educate your patient. Familydoctor.org has a handout on Health Information on the Web: Finding Reliable Information. The Medical Library Association also has guidelines posted at http://www.mlanet.org/resources/userguide.html

Most authorities recommend the following criteria for evaluating a health information web site:

- Who maintains the site? Is this site owned by a company, organization or individual?
- Is there an editorial board or another listing of the names and credentials of those responsible for preparing and reviewing the site's contents? Can these people be contacted if visitors to the site have questions or want additional information?
- Does the site link to other sources of medical information? Are research articles cited?
- When was the site last updated? Health information changes rapidly.
- Who paid for this site? Are they trying to sell you something or otherwise biased?
To employ evidence-based practice one must integrate best research with clinical expertise and patient values for optimum care. To truly integrate patient values into the decision making process of evidence-based practice, one must practice patient-centered care, which is defined by the IOM as:

**Provide patient-centered care**—identify, respect, and care about patients’ differences, values, preferences, and expressed needs; relieve pain and suffering; coordinate continuous care; listen to, clearly inform, communicate with, and educate patients; share decision making and management; and continuously advocate disease prevention, wellness, and promotion of healthy lifestyles, including a focus on population health.


**Patient Decision Aids**

Decision aids are tools designed to facilitate shared decision making and patient participation in health care decisions.

Decision aids increase patient knowledge to help them understand their choices. As such, they should be considered at Patient Education materials. They can be handouts, models, videos, interactive web sites, apps, etc.

Decision aids describe where and why choice exists and provide information about options, which may include the option of taking no action. The goal of a decision aid is to help patients deliberate, independently or in collaboration with others, their options by considering relevant risks and benefits, to help patients determine how they might feel about short, intermediate and long-term outcomes which have relevant consequences.

Many implementation barriers exist to using decision aids in routing clinical practice. The availability of simple decision aids that clinicians can integrate into regular patient care could improve adoption. A Cochrane review has shown that decision aids improve patient’s knowledge and reduce decisional conflict, and, in turn, affect the extent to which informed patients' values determine health care decisions.

EXAMPLES OF PATIENT DECISION AIDS

An example of a useful decision aid is The Absolute CVD Risk/Benefit Calculator shown at right, which can be found at http://cvdcalculator.org. The tool estimates the risk of CVD using your choice of Framingham, QRisk, or ACC/AHA ASCVD formulas, then allows you to show the relative benefits of various options like statins, exercise, or smoking cessation. The resulting improvements are shown using 100 smiley faces.

Decision aids can be handouts, online interactive tools, apps or videos. These can be used with a patient during the encounter or given to patient to use at home or while waiting at the clinic. The PDF handout below from Mayo Clinic’s Center for Shared Decision Making, http://shareddecisions.mayoclinic.org on depression medication choices is presented in multiple formats on the website, which also provides a video demonstration of how to use the aid.

The Ottawa Hospital Research Institute has compiled a nice directory of online decision aids which can be found online at https://decisionaid.ohri.ca. Browse the A to Z Inventory. They link to a large number of interactive tools on many topics from Healthwise and other highly respected agencies and institutions.

Depression Medication Decision Aid
From the Mayo Clinic Shared Decision Making National Resource Center.
http://shareddecisions.mayoclinic.org/
CONSIDERATIONS FOR THE Appropriateness OF A Handout FOR Patients.

The following should be considered in deciding if a handout is appropriate for a specific patient.

- **Reading level**
- **Language**
- **Design**
- **Illustrations**
- **Content**
- **Demand-management value**
- **Ethnicity**
- **Source**

We will discuss each of these aspects separately with examples of handouts for each one and other resources that can help you adapt the handout to fit your patient’s need in the following pages.

**Reading Level**

Newspapers and other commonly read materials are written on the sixth-grade to eighth-grade level. Even patients who read at a much higher level generally appreciate information that is simple and to the point -- as long as the tone isn't condescending. Recent estimates number 35 million adults in the United States as functionally illiterate. Simply put, about one in five adults **cannot read**. Of those who can read, about 20 million adults in the United States have an 8th grade reading level, while 20 million more have a reading level of 4th grade or below.

To conduct your own quick assessment of a handout, keep these general guidelines in mind as you read:

- one or two syllables per word
- one idea per sentence
- one concept per paragraph
- no more than five key points per handout

**Medical terminology should be avoided whenever possible.** If it can’t be avoided, the terms should be carefully defined. For example, *bed wetting* should be used rather than *enuresis*. Because there is no lay term for *rosacea*, a handout on that topic should explain how to pronounce the word and what the condition involves. Consistency in terminology is also important. Analogies, simple punctuation, contractions and even slang are good if they enhance understanding.

**Checking the Reading Level of Handout with Read-Able.com**

This website allows you to paste in the URL of the resource/handout and provides an analysis of the readability of the page. Check it out at [http://www.read-able.com](http://www.read-able.com)
Checking the Reading Level of a Handout with MS Word

To set Word to always give you readability stats when you use the Spell Checker:

1. In Word 2010 (or later), under the Files tab, select Options, then select Proofing.
2. Under “When correcting grammar and spelling in Word” check “Show readability statistics”
3. Hit OK.

To determine the reading level of a handout you must copy and paste the handout into Word from the web site, and under the Review Tab pick Spelling and Grammar.

When Microsoft Word finishes checking spelling and grammar, it displays the Flesch-Kincaid data. See an example handout and readability statistics on the next page. The "Flesch-Kincaid Reading Ease" test scores passages on a scale of 0-100. Higher scores indicate material that is easier to read; lower numbers mark harder-to-read passages. The "Flesch-Kincaid Grade Level Formula" translates the Reading Ease score to a U.S. grade level for an average student at that grade level. An example handout with readability statistics is shown on the next page.

LANGUAGE

Most patient education resources on the web are available in English and Spanish. There is a way to translate into most European languages, Japanese, Chinese and Korean using Word. Google also has translation services for text and web pages. If the text of the handout is in simple language, these work much better. Handouts full of medical jargon do not translate well. As the handout should not contain medical terms, this is an additional incentive to find clear, simple handouts.

Translating a Handout using Google

1. Find handout and copy it or if online copy the URL
2. Go to Google.com
3. Click on More and select Translate.
4. Under Translate, select the languages to translate from and to
5. Paste the URL of the web page or the text which you have copied in the correct spot.
6. Hit the Translate button
Cast Care

What is a cast?
A cast surrounds an injured body part to protect it, keep it from moving, and allow it to heal. Casts are made of fiberglass or plaster. They are most often used for broken bones. They are also used sometimes for torn ligaments or tendons.

A cast may be put on in your healthcare provider's office or an emergency department, or after surgery at the hospital.

How is a cast put on?
Your healthcare provider will first wrap your injured body part. He will then put a cloth or strips that are soaked in water on your body to protect the cast. The material will harden so that it will not cut your skin and it will stay on.

How is a cast removed?
Your healthcare provider will cut the bandages that hold the cast in place. He will also cut off the parts that are no longer needed.

How long will a cast take to heal?
How long you need to wear a cast will depend on how your body is. It will also depend on how well you take care of your cast. You will need to wear a cast for weeks and sometimes months. You will need to adjust your cast as your body heals within a few weeks and sometimes months.

How can I take care of my cast?
To keep swelling down:
• Take pain medicine.
• Keep the cast up on pillows when you sit or lie down.
• If your uninjured fingers or toes are free below the cast, wiggle them every few minutes.

Keep your cast dry. A plaster cast will fall apart if it gets wet. A fiberglass cast won't fall apart but the padding underneath may itch or start to smell if it gets wet. Wet padding may also hurt your skin.
• If you are going to be exposed to water, even rain, protect the cast from getting wet. A plastic bag held in place over the cast with a rubber band may protect it for a short time. Plastic covers that keep the cast dry in the shower are available in pharmacies or drug stores.
• If your cast gets wet you may be able to dry it with a hair dryer set on a cool setting. However, you should contact your healthcare provider because you may need your cast to be changed.

Sample Handout from Access Medicine
Notice the readability scores Word calculated on the handout. Look over the handout. Are there any words that could be simplified?
Google’s translator does not work well with library subscription websites that require a password in the URL, nor does this work well with web pages that show the handout in a frame. Translating the text instead of the webpage loses all formatting (bold, bullets, etc.).

**Translating a Handout using Word**

1. Under the **Review** Menu
2. Select **Translate…** The Translate Language Options window will come up.
3. Select **From English to …** Pick your desired language
4. Hit OK

Microsoft Word uses a web service called **Microsoft Translator** to do the translation, so your new handout will appear with most of the formatting intact in **Internet Explorer**. This works well, as long as you can copy and paste your handout into Word and the handout is simple.

**Design**

All handouts should have good design characteristics. The type should be big enough to be easily read by visually impaired (i.e. geriatric) patients. Fancy typefaces and long stretches of text in italic type or all in capital letters should be avoided. White space (generous margins, blank lines between sections, etc.) and subheadings enhance readability. A ragged right margin is generally more readable than an even one.

According to the 1998 Consensus Conference Results sponsored by the American Association of Diabetes Educators, the following recommendations can make printed patient education materials more accessible for the visually impaired:

- Black print on cream or yellow, non-glossy paper
- Footed font, such as Times New Roman, in **14-point** or larger type
- Normal mix of capital and lower case letters (using all capitals is difficult to read and is considered the visual equivalent to shouting)
- Short, concise language
- Bulleted lists
- Customer service phone numbers emphasized, using all numerals instead of letters/words

The AADE makes the following recommendations for the preparation of all patient education literature:

- Field test on visually impaired as well as fully sighted consumers
- Make material adaptable to non-print formats
ILLUSTRATIONS

Illustrations aid comprehension for those with poor reading skills and are generally easier to remember than text. But a bad illustration can wreck an otherwise excellent patient education handout. The illustration must match the words and be understandable without text accompanying it. Illustrations should be simple; a detailed anatomical diagram may not be as effective as a simple line drawing. Illustrations of patients should be representative of your target audience.

CONTENT

Above all, the information needs to be accurate, up-to-date and consistent with what you would teach. The worst thing you could do is tell the patient one thing, then give them a handout you have not read that clearly conflicts with what you have told them. Also ask yourself these questions: Is the benefit of the information clear to the reader? Is too much detail provided, or too little? The American Academy of Family Physicians Foundation reviews the content of patient education materials and publishes a list of those that have been favorably reviewed.

DEMAND-MANAGEMENT VALUE

Look for handouts that include specific advice to help patients understand when they should (and should not) seek your attention. For example, a patient education handout about the flu and colds would include a list of symptoms that should prompt the patient to call you. The AAFP handout on croup at right from FamilyDoctor.org gives clear instructions on when to call the doctor.

CULTURAL BALANCE

Ask yourself whether the content respects diverse cultural and religious views and avoids bias. Does it present information about treatment objectively, address both sides of controversial issues and explain positive and negative aspects of procedures?

SOURCE

Finally, consider how the content of the material might have been affected by its source. Determine who funded the piece, who endorsed it and whether these organizations have a commercial interest in its content. If the information isn't copyrighted, you can adapt the content to suit your purposes.
**Using a Handout in the Patient Encounter**

If used properly, a handout can be used to facilitate communication between the provider and patient, and guide the patient education part of the visit, as well as give a patient a document to use at home to refresh his/her memory and enhance understanding of his/her condition and treatment plan. Here are guidelines for using a handout in the encounter:

- **Sit next to patient:** Sit down next to the patient whenever possible. It immediately focuses attention and puts you in the role of teacher and guide. "Let’s read this over for a minute or two, Ms Katz; this handout helps explain how and why yeast infections develop more often in diabetic women and how certain medications can help."

- **Review the handout with the patient.**

- **Provide pencils, pens, or a highlighter.**

- **Point to key points** with your finger and ask the patient to circle, check, underline, or highlight. You will dramatically increase the speed and efficacy of the consultation, and your patients will walk out with customized notes. They won’t have to take time to read it all over to pick out the 2 or 3 points they need to remember. "From this list of foods to avoid, Mr Simic, which three do you think will be the easiest for you to cut down on? Go ahead and circle or underline them as a reminder."

- **Use written materials to review and make priorities.** Patients often feel overloaded with technical names, difficult quantities, and confusing schedules. The best communicators have the knack of boiling down all the information into a handful of essentials. Help your patients internalize the information by putting it in order of priority. "Of all we’ve talked about, Ms Sidney, what’s the most important to remember?"
  
  "To remember to keep my blood sugar log."
  
  "Right! Let’s put a ‘1’ there. Now the second most important would be...?"

- **Check for understanding.** Ask open ended questions to assess the patient’s understanding of your instructions.

These recommendations are taken from “Strategies to Improve Compliance”, a program for diabetic educators at [http://www.arcmesa.org/](http://www.arcmesa.org/)
References


Swanson, S., & Bennett, E. (2002). The Patient and Family Education Materials Development Kit (pp. 48). Seattle, Washington: Children's Hospital and Regional Medical Center.

