



Patient Education Materials Manual

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To improve care of patients with lung diseases, critical illness, and sleep disorders, the ATS has developed a variety of educational resources (also referred to throughout this guide as materials or products) designed for clinicians to share with patients/families/caregivers to reinforce and complement ongoing provider-patient communications. The Patient/Public Health Information Series is our flagship patient education product, with over 100 titles to choose from on a wide variety of topics. These resources are developed according to current standards for health literacy and are peer reviewed by members and experts. All are available open access on the ATS website and many are published in an ATS journal.

The ATS Patient & Family Education Committee (PFEC) is responsible for developing and disseminating policy and procedure guidance for the Society's patient education programming and updates this guidance periodically to reflect the literature and evidence-based practices.

In 2023, the ATS updated this manual in several substantive ways including:

1. Prioritization of topics that align with the Vaccine Initiative, Official Documents, and Public Advisory Roundtable (PAR),
2. A new pathway for resources to be submitted, peer reviewed, accepted, and published by ATS Scholar, and
3. Enhanced patient-centered feedback requirements.

If you have any feedback to share about ATS Patient Education resources, please email ATS Staff for Patient Education (jcorn@thoracic.org).

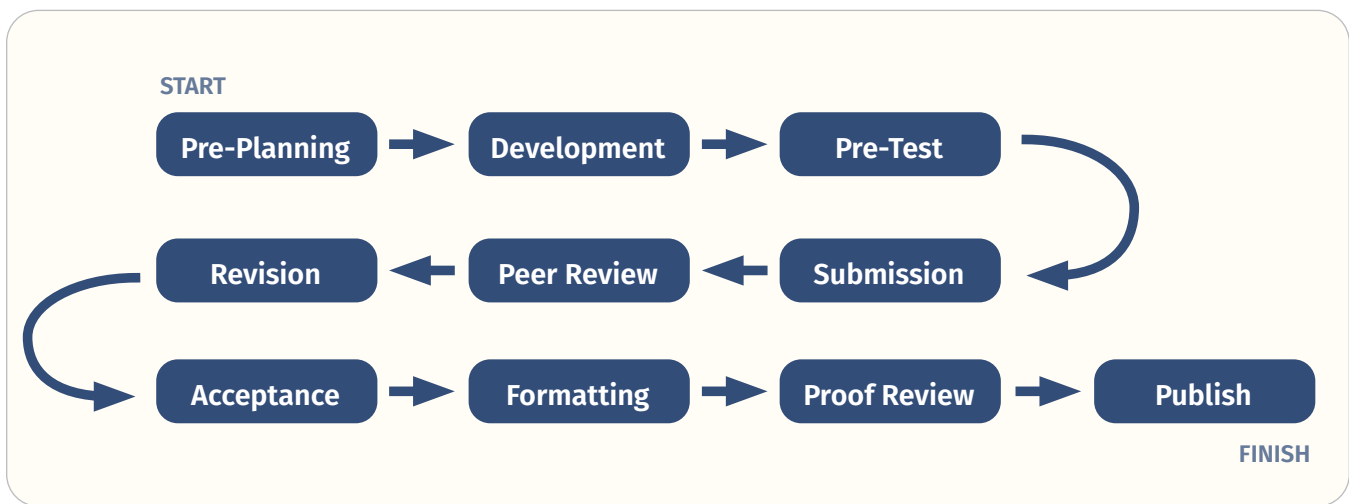
ATS patient education projects that yield one or more patient education resources, such as Patient/Public Health Information Series documents, can be initiated by Assemblies, Committees, or individual ATS members who wish to propose topics and draft content. **Priority** topics include:

1. A patient education resource (or series) connected to an Official ATS document.
2. Vaccine-related topics to align with the Vaccine Initiative for the duration of the grant.
3. An ATS-PAR collaboration on a PAR-related topic.
4. Leadership-driven initiatives.

ATS invites all members, especially members in training and those early in their career, to consider collaborating on the development or review of one or more Patient Information/Public Health Series resources.

Benefits of Contributing to the ATS Patient Education Materials Program

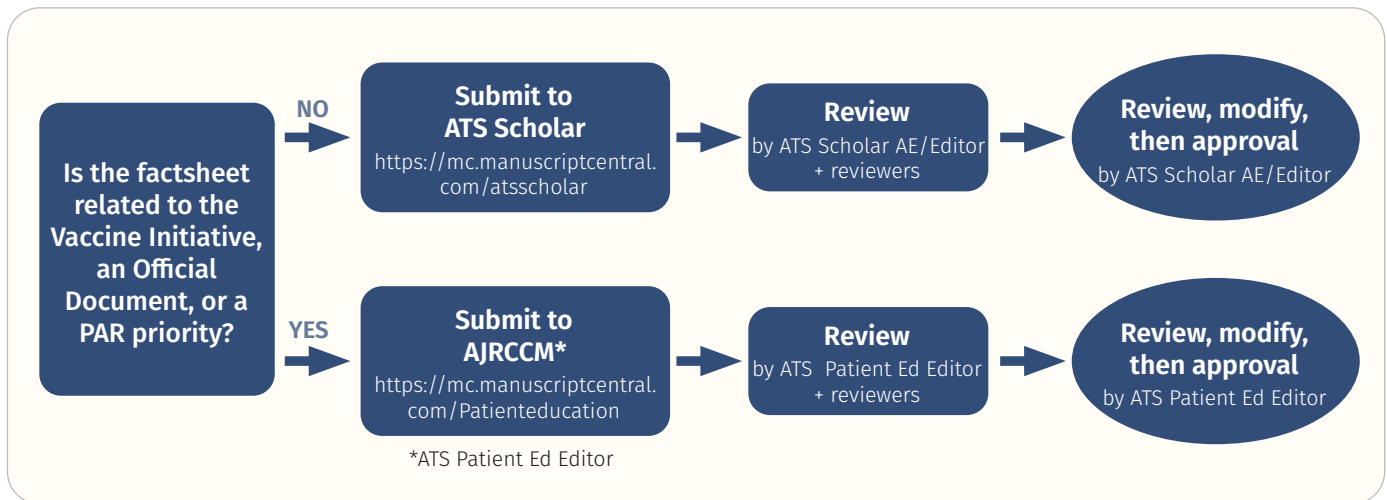
1. Facilitate general knowledge of important pulmonary, critical care, and sleep medicine topics to patients, families, and the general public
2. Share your expertise directly with patients and families
3. Collaborate with other ATS members and staff
4. Publish in an ATS journal
5. Participate in a highly valued activity of the Society
6. Cite this activity on one's academic teaching portfolio
7. Help provide clinicians, hospitals, and health systems with high-quality patient material
8. Share new research developments with patients and families



PRE-PLANNING

The resource should fill a patient-education gap that is relevant to pulmonary, critical care, or sleep medicine that is not already addressed by other high-quality resources. Individuals interested in preparing a Patient Information Series or Public Health Series document should check the ATS website (www.thoracic.org/patients) to see what is currently available. One should also review currently available web-based material from non-ATS sources as part of a needs assessment and, later when writing the document, to populate the “Other Resources” section of the final product. Resources should be concise and relatively brief. For some topics, there may be too much content for a single material and a series of 2+ materials may be needed.

FIG 1: SUBMISSION PROCESS BY TOPIC



SUBMISSION INSTRUCTIONS

1. Use Figure 1: “Submission Process by Topic” to determine which submission process is most appropriate for your resource.
2. Go to the main peer review portal, ScholarOne, at <https://mc.manuscriptcentral.com/atsjournals>.
 - For materials that relate to Official Documents, The Vaccine Initiative, or PAR, select “ATS Patient Education.”
 - For all other materials, select “ATS Scholar.”
 - Leadership-driven topics can be submitted to ATS Patient Education or ATS Scholar.
 - Materials that are not appropriate for one journal may be transferred to the other journal for consideration.
3. All patient materials submitted to either portal will be reviewed internally by the corresponding editorial team and either moved into peer review transferred to the other journal for consideration, or rejected/returned. You will receive an email that documents this information.

GENERAL PATIENT EDUCATION RESOURCE REQUIREMENTS FOR ALL SUBMISSIONS

1. Submit all text-based resources in Microsoft Word.
2. Submit resources in English only.
3. Limit text-based resources to 600–800 words.
4. Use Q/A format.
5. Submit a photo example for design team. Generally a photo or graphic image is used on page 1 as part of the introduction.
6. If you wish to use your own custom graphics, submit in either Word or a JPEG.
7. Materials should be written at the 6th–8th grade reading level, assuming the text will contain medical terms that are multisyllabic and will need to be defined. Aside from necessary medical terms, resources should be written at the lowest reading level possible to convey the subject matter.
8. Document word count, key words, and reading level on your cover page. Most word-processing programs can assess reading level.
9. COI declaration for each author as delineated by the appropriate journal is required.
10. Three to five links to patient-focused resources should be included at the end of the patient education resource.

Specific Elements for Patient Education Resources Submitted to ATS Patient Education

1. Identify co-developers at the start of the process
 - Consider pairing an early career professional with a senior person
2. The general outline of patient education materials will vary based upon the scope and content. For Patient Information Series and Public Health Information Series materials, the general outline typically includes:
 - Methods: needs assessment and process used to obtain and incorporate patient-centered feedback.
 - What is ____ ?
 - What causes _____ ?
 - How do I know if I have _____ ? (signs & symptoms)
 - How is _____ diagnosed? (Discuss the most common ways)
 - How is _____ treated? Depending on the topic, this may be dealt with as a separate resource or series.
 - Additional questions can be posed that might be unique to the condition/issue.
 - For public health pieces, content could include the importance to the community/society and needs for action/advocacy.
 - Action Steps/Key Points: This is a check list of key issues, typically actions for the reader/patient, like what to do if ____, when to call the provider, etc.
 - Authors: (names of those developing the document). Authors can be from an assembly, committee, PAR, or general membership. There must be at least one ATS member as part of the development team. Authors should be listed in order, with primary author first, and with appropriate degrees.
 - Reviewers: ATS will insert names of those editing the document, including the content expert. If substantial contributions are made by a reviewer, the original authors may be asked to consider including the reviewer as an additional author. Authors may suggest names of qualified reviewers during the submission process.

3. Resources: As noted in the general requirements for all submissions, include a bulleted list of up to 5 lay public resources, preferably those that are open access. Consider resources such as the CDC, NHLBI, www.flu.gov, etc. International sites in English can also be included, such as <http://www.asthma.org.uk>. Avoid commercial sites as much as possible. Consider cross-referencing between relevant patient-education material on the website of the American Thoracic Society, which can be found on www.thoracic.org/patients/.

Specific Elements for Patient Education Resources Submitted to ATS Scholar

Educational resources for patients written in plain language on topics and procedures in pulmonary, critical care, and sleep medicine are welcome. Please include a one-page supplement that provides the clinician reader with information about the methods of development for the patient education materials, including literature review, needs assessment, evaluation of the content, and limitations. **You may include up to 10 professional references in the supplement.**

Videos designed for patient education are also welcome, and should focus on topics related to pulmonary, critical care, and sleep medicine. Videos should meet publication criteria for both “video” and “patient education” submissions to ATS Scholar (see <https://www.atsjournals.org/journal/ats-scholar/instructions#videos>)

Please review Appendix 2: Tips to Enhance Health Literacy of this manual, as well as existing patient resource topics at <https://www.thoracic.org/patients/patient-resources/>

The peer review processes for resources submitted to ATS Patient Education & ATS Scholar are similar, but there are subtle differences between the two pathways. The following describes the detailed processes for each.

Peer Review Process for ATS Patient Education

- The paper enters peer review. The Editor decides whether the resource is acceptable for peer review, should be transferred to ATS Scholar, or should be returned.
- Resources deemed acceptable for peer review will be sent out for content and health literacy review.
- Editor synthesizes peer reviews and prepares suggested edits for consideration by the Primary Author.
- Author resubmits revised Word document responding to all queries/edit suggestions.
- Editor/staff reviews revised draft, makes final modifications, and approves final draft (this may require several review/modification cycles prior to approval).
- Staff sends approved Word document and any graphics to design team for formatting.
- Staff sends formatted document back to editor and author for proofing.
- Final corrections are made and proof is sent for publication.
- Authors are notified when fact sheet is published.


Peer Review Process for ATS Scholar

1. The paper enters peer review. A decision—Major Revision, Minor Revision, or Reject—is made. Some materials may be transferred to ATS Patient Education for consideration.
2. Re-submit your manuscript as a revision. Please respond to all editor and reviewer comments and upload a “marked” and “clean” version of the paper.
3. The revision undergoes further peer review.
4. Steps 3 and 4 are repeated until the paper is either rejected or provisionally accepted.
5. Once provisionally accepted, the paper will undergo routine production checks. You may be contacted by ATS staff to address formatting concerns or make slight changes to the manuscript.

PEER REVIEW PROCESS & PUBLICATION

6. The paper is exported and sent to our typesetter. At this stage it is officially accepted.
7. You will receive proofs from the typesetter.
8. After completing your revisions to the proofs, they will be sent to the ATS Staff.
9. ATS staff will review the proofs.
10. The paper goes live online as an article in press.
11. The paper is selected and appears in a quarterly issue of ATS Scholar. At this stage, it is also indexed in PubMed.

All Patient Information Series/Public Health Information Series resources are posted on the ATS website and many are published in an ATS Journal (AJRCCM or ATS Scholar).



American Journal of Respiratory and Critical Care Medicine

The most innovative science and highest quality reviews, practice guidelines, and statements in pulmonary, critical care, and sleep-related fields.

ATS Scholar

A peer-reviewed, online-only, open-access, education-themed journal focusing on medical education, clinical education, education research, quality improvement, and more

ASSESSMENT OF CURRENCY/UPDATING

All resources will be reviewed at least every 3 years or sooner if substantive changes have occurred in the field, as per standard editorial policies. The update process should determine whether the resource needs to be revised or whether the content is current.

CURRENCY REVIEW CRITERIA

- Accuracy
- Currency and completeness (including resources)
- New COI

SPECIFIC QUESTIONS

Are the statements/recommendations in the piece still consistent with the available evidence?

- Is the content still accurate?
- Is the content still up to date?
- Are the resources listed still appropriate?
- Are the hyperlinks still up to date?
- Would you recommend this fact sheet to a patient interested in this health topic?
- Do you recommend this fact sheet undergo no revision, minor revision, major revision, or archiving?

If content is current, a “date stamp” will be used to update the online version.

If content needs to be updated, the piece will be sent to an original author or member experts to update. If the authors are not able to update the piece, alternate authors will be identified. The edits will go through the review process and, when the updated resource is posted, a new review date stamp will be added. Materials that require extensive updating to ensure accuracy will be removed from the website until they have been updated.

Marketing



Requests from outside parties to republish or utilize content should be sent to the ATS Permissions Department at permissions@thoracic.org

Channels for in-house dissemination include the ATS Stat, Social Media, and assembly or committee announcements. We also encourage clinicians to utilize these materials.

All Patient Information Series and Public Health Series are posted on the ATS website at www.thoracic.org/patients. The website design is consistent with recently established Society design parameters set by the ATS Web Editor and Editorial Board.

Background/History of ATS Patient Education

The Institute of Medicine, the American Medical Association, and other respected medical organizations have documented that a substantial portion of American adults have low health literacy, making it difficult for them to understand a variety of health communications from providers, the Internet, and other sources. Low health literacy is significantly correlated with decreased adherence to prescribed medical regimens, and increased emergency room visits and hospitalizations.

Patients often forget or misinterpret what is said during an office, clinic, or hospital encounter with their healthcare provider. Having written material that can also be shared with other family members or caregivers can be a useful adjunct to the patient education given during these clinical encounters.

To improve the care of patients with lung diseases, critical illness, and sleep disorders, the ATS has developed a variety of education materials designed for patients and families. These materials are designed in accordance with current quality standards for health literacy and are peer-reviewed (also see “Improving Health Literacy” at <http://www.atsjournals.org/doi/full/10.1513/AnnalsATS.201605-337OT>). They cover a variety of topics ranging from prevention of lung disease to the diagnosis and treatment of syndromes and diseases that affect the respiratory system in pediatric and adult populations.

The ATS Patient Information Series and Public Health Information Series, our flagship patient education products, help clinicians, researchers, and public health experts communicate about lung disease and related topics with patients and their families. All of these documents are on the ATS website (www.thoracic.org/patients), and many are published in an ATS Journal. Some are also made available in print form.

These materials are part of the Society’s commitment to patient-centered care and are complementary to the informational programming conducted by its Public Advisory Roundtable (PAR), which presents a variety of educational programs and materials at the International Conference and throughout the year.

The ATS Patient and Family Education Committee (PFEC) develops policy/procedural guidelines for these activities, which are implemented by designated Journal Editors, Associate Editors, and ATS Staff.

PART 1. TIPS TO ENHANCE HEALTH LITERACY

PART 2. HEALTH LITERACY ASSESSMENT TOOLS

The principles and recommendations included in these guidelines are intended for both authors and reviewers.

PART 1

Introduction

Health literacy is defined in the U.S. Dept. Of Health and Human Services' Healthy People 2010 as the capacity to "obtain, process and understand basic health information and services needed to make appropriate health decisions." Health care professionals have the responsibility and challenge of providing patients, family, and the public with high-quality, accurate, accessible, and actionable medical information, according to HHS' National Action Plan to Improve Health Literacy. The American Thoracic Society's PFEC committee has compiled tips from health literacy experts to help assure ATS materials meet these standards.

Additional Text

One source for guidance on designing and writing patient education resources is the HHS' Health Literacy Tools page at:

<https://health.gov/our-work/national-health-initiatives/health-literacy>

References

U.S. Dept. Of Health and Human Services. Healthy People 2010. 2nd Ed. U.S. Gov Printing Office: Washington, DC. 2000.

U.S. Dept. of Health and Human Services. Office of Disease Prevention and Health Promotion. National action plan to improve health literacy: 2010. Available from www.Health.gov/communication/hlactionplan/pdf/Health_Literacy_Action_Plan.pdf

SECTION A:

General Principles for Enhancing Health Literacy

Language/Style

- Use the active voice, e.g.: “you will have a blood test” rather than “blood tests will be done.”
- Write as though you are talking, using personal pronouns like “you” and “your.”
- Be clear and specific so that readers don’t have to guess or assume what to do. For example, say “take a ten-minute walk every day” rather than “exercise moderately.”
- Adult learners prefer content that will help them solve problems rather than just learn medical facts. Content of greatest interest will be that related to behaviors to help solve problems or avoid or control disease.

Vocabulary and Graphics

- Vocabulary, sentence structure, and graphics influence the readability of material! Specific suggestions include:
Choice of Words
 - Avoid multi-syllable words, if possible. For example, use “join” rather than “participate”.
 - Use common, simpler words, for example, “choice” rather than “decision” and “often” instead of “commonly.” Sometimes you will not be able to use simpler words. For example, if you substitute “air” for “oxygen,” you can drop the text reading level, but it is not an acceptable substitution.
 - Include a definition and show how to pronounce difficult but critical medical terms or concepts. For example: “bronchitis (bron-KI-tis), a disease that makes you cough.”
 - Choose one term and use it throughout the piece. Use the same form of a word consistently. For example, don’t switch between surgery and surgical procedure.
 - Avoid abbreviations and acronyms (such as HMO or BP) unless commonly known to lay public and defined. If used, spell the word or entire term first and follow with the acronym or abbreviation in parentheses immediately behind.
 - Be careful about words like “may,” “might,” or “suggest,” as these may be difficult to understand.
 - Be careful with subjective words, such as “rarely” or “often.”
 - Avoid use of contractions, such as “don’t.”
 - If you need to use multisyllabic words, include a phonetic spelling of the word. For example, for lymphangioliomyomatosis, include “(lim-FAN-gee-oh-ly-oh-my-oh-ma-TOE-sis).”
 - Use generic rather than brand names/trademarks, as brand names can introduce bias.

Forming Sentences

- Short sentences are generally preferred (15 words or less).
- However, short sentences must make sense together and be cohesive. For example, Version B is a more complex sentence, but it makes more sense than Version A.

Version A: You can prevent damage caused by diabetes. You should lose weight. You should take your insulin as prescribed.

Version B: If you lose weight and take your insulin as prescribed, you can prevent damage caused by diabetes.

Graphics

- Use simple graphics without distractions. Avoid nonessential details or unnecessary color. ATS uses a graphic designer who works from proposed ideas or example images to create a consistent look for fact sheets.
- Use images that are likely to be familiar and easily recognized by viewers.
- Use captions to tell the reader about the graphic and where to focus.
- Position illustrations on the same page adjacent to the related text.

SECTION B:

Guidelines for Authors/Reviewers of AJRCCM Patient Information Series Pieces

1. General Formatting Principles

Length/Word Count

- The AJRCCM Patient Information Series pieces are generally two printed journal pages (front and back) in length. Pieces that are one printed journal page are also acceptable.
- The word count per piece will vary, but should fall between 600 and 8000 words. It is important not to be text heavy. For optimal readability, the general goal is a 60/40 ratio of text to white space.
- Standard graphics/formatting is used for all pieces, including the Clip and Copy vertical graphic, as well as boxed graphics on page 1 (top right corner), and the RX and Additional Resources boxes on page 2.
- If this two-page format is not adequate for a particular topic, a mini-series consisting of several pieces can be considered. Alternatively, ATS can support longer web-only pieces.

2. Translations

- All Series pieces are prepared and published in English.
- ATS supports the development of Series pieces in other languages. These translations need to be conducted by vendors hired by ATS and reviewed by language-fluent content experts to assure no loss of accuracy. Once approved, other language versions will be posted on the website.

3. Reading-Level Target

- Generally, materials should be written at the 6th-8th grade reading level, assuming the text will contain medical terms that are multisyllabic and will need to be defined. Refer to Appendix 2 for tips to enhance health literacy and tools to assess suitability/readability.

4. Organization

- Use headers to identify main topics. Often it is useful to write headers as questions, such as “What is Chronic Obstructive Pulmonary Disease?”
- Do not use all CAPS
- Use the Rx “call-out” box to provide major action tips and/or a summary of key points.
- Additional Resources “call-out” box should include a handful of high-quality web resources that are accessible to the lay public.

Health Literacy Resources

The Joint Commission. “What did the doctor say?": Improving Health Literacy to Protect Patient Safety. 2007; www.jointcommission.org.

Doak CC, Doak LG, Root JH. Teaching patients with low literacy skills. Second Edition. J.P. Lippincott Co. Philadelphia, 1996.

ATS Patient and Family Education Committee. <http://www.atsjournals.org/doi/full/10.1513/AnnalsATS.201605-337OT>.

PART 2

Introduction

The ATS Patient and Family Education Committee (PFEC), Associate Medical Editor for Patient Education (AMEPE), and patient education staff have selected key principles from a number of existing high-quality evaluation tools for assessing patient education material. The ATS P-GATS checklist is adapted from these tools. This is not intended to be an exhaustive summary of available tools, rather it is a selection that reflects our core principles. Systematically following key principles in design, development, and evaluation of patient materials helps assure a level of quality valued by the Society and its members. Ultimately, however, no evaluation tool can guarantee that materials will be effective. One must test materials with patients in a given practice or group to know that they are useful and effective.

When considering a patient education material, one has to consider a number of important qualities, including:

- Content Accuracy/Comprehensiveness
- Readability
- Understandability
- Actionability

Evaluating Content Accuracy/Comprehensiveness

Before investing a lot of time and resources on a patient education material, it is important that the draft be reviewed by unbiased content experts who can assure that the information is accurate and up to date. In doing this initial review, it is helpful to know the defined aim/scope of the material. Whatever the topic, the material should appropriately reflect the applicable content.

Material should be accurate, without bias, and reflect current best practice/evidence.

Evaluating Readability

A readability assessment should be done for print materials in conjunction with the assessment of understandability and actionability. Readability is not a substitute for considering factors that contribute to comprehension, appeal, and accuracy of materials. In general, readability tools penalize writers for polysyllabic words and long, complex sentences. A reasonable readability goal is considered to be as low as practical without sacrificing important content or writing style. It is better to use conversational writing style rather than short, choppy sentences. Write for the patient, not the formula. The 6th-grade level is a reasonable goal for most health care instructions. About 75 percent of adult Americans will be able to read at this level without difficulty. If you want to make instructions easily readable by 90 percent of adult Americans, they must be written at about the 3rd-grade level. Research has shown that adults at all reading skill levels prefer and learn better with easy-to-read instructions.

There are more than 40 published readability formulas for English texts. The Flesch-Kincaid Grade Level Readability Formula is among the most widely used formulas and is available as a tool in Microsoft Word.

The Flesch-Kincaid Grade Level Readability Formula

www.readabilityformulas.com/flesch-grade-level-readability-formula.php

THE FLESCH-KINCAID GRADE LEVEL READABILITY FORMULA

Step 1: Calculate the average number of words used per sentence.

Step 2: Calculate the average number of syllables per word.

Step 3: Multiply the average number of words by 0.39 and add it to the average number of syllables per word multiplied by 11.8.

Step 4: Subtract 15.59 from the result.

The specific mathematical formula is:

$$\text{FKRA} = (0.39 \times \text{ASL}) + (11.8 \times \text{ASW}) - 15.59$$

Where,

FKRA = Flesch-Kincaid Reading Age

ASL = Average Sentence Length (i.e., the number of words divided by the number of sentences)

ASW = Average number of Syllables per Word (i.e., the number of syllables divided by the number of words)

Analyzing the results is a simple exercise. For instance, a score of 9.3 means that a ninth grader would be able to read the document. This score makes it easier for teachers, parents, librarians, and others to judge the readability level of various books and texts for students.

Theoretically, the lowest grade level score could be -3.4, but since there are no real passages that have every sentence consisting of a one-syllable word, it is a highly improbable result in practice.

The Flesch Reading Ease Readability Formula

www.readabilityformulas.com/flesch-reading-ease-readability-formula.php

THE FLESCH READING EASE READABILITY FORMULA

The specific mathematical formula is:

$$RE = 206.835 - (1.015 \times ASL) - (84.6 \times ASW)$$

RE = Readability Ease

ASL = Average Sentence Length (i.e., the number of words divided by the number of sentences)

ASW = Average number of syllables per word (i.e., the number of syllables divided by the number of words)

The output, i.e., RE is a number ranging from 0 to 100. The higher the number, the easier the text is to read.

- Scores between 90.0 and 100.0 are considered easily understandable by an average 5th grader.
- Scores between 60.0 and 70.0 are considered easily understood by 8th and 9th graders.
- Scores between 0.0 and 30.0 are considered easily understood by college graduates.

A related tool is the Flesch Reading Ease Readability Formula:

If we were to draw a conclusion from the Flesch Reading Ease Formula, then the best text should contain shorter sentences and words. A score between 60 and 70 is largely considered acceptable. The following table is also helpful to assess the ease of readability in a document:

90–100: Very Easy

80–89: Easy

70–79: Fairly Easy

60–69: Standard

50–59: Fairly Difficult

30–49: Difficult

0–29: Very Confusing

Though simple it might seem, the Flesch Reading Ease Formula has certain ambiguities. For instance, periods, explanation points, colons, and semicolons serve as sentence delimiters; each group of continuous non-blank characters with beginning and ending punctuation removed counts as a word; each vowel in a word is considered one syllable subject to: (a) -es, -ed and -e (except -le) endings are ignored; (b) words of three letters or shorter count as single syllables; and (c) consecutive vowels count as one syllable .

Other commonly used readability calculators include: The ARI (Automated Readability Index) SMOG Readability Test (prevention.sph.sc.edu/tools/SMOG.pdf)

Fry Formula

A free online software tool that calculates readability using multiple indices can be found at: www.online-utility.org/english/readability_test_and_improve.jsp

For a more detailed assessment process focused on readability, one can use “A 5-step Methodology for Evaluation and Adaptation of Print Patient Health Information to Meet the <5th Grade Readability Criterion,” which was developed and validated by Hill-Briggs and colleagues. (Hill- Briggs F, Schumann KP, Ogechi D. Med Care, 2012;50(4):294-301.)

Readability formulas for text are available in at least 12 languages other than English. The two variables used in formulas for English language text—the number of syllables and length of the sentences—are used in most formulas for other languages as well.

Evaluating Overall Quality, Including Understandability and Actionability

Two key principles that can be used to evaluate the overall quality of health education materials beyond content accuracy and readability are:

Understandability

Patient education materials are understandable when consumers of diverse backgrounds and varying levels of health literacy can process and explain key messages. (Shoemaker SJ et al, PEMAT)

Actionability

Patient education materials are actionable when consumers of diverse backgrounds and varying levels of health literacy can identify what they can do based on the information presented.

The Patient Education Materials Assessment Tool (PEMAT) is a systematic method to evaluate and compare the understandability and actionability of patient education materials. The PEMAT is designed for use by health care professionals wanting to develop or select high-quality materials to provide to their patients or consumers. It was developed under contract to the Agency for Healthcare Research and Quality and underwent rigorous reliability and validity testing. A User's Guide is available that provides many examples of materials to illustrate how to assess items and use the tool.

The PEMAT includes two versions: one for printable materials and another for audiovisual materials.

PEMAT-P for printable materials consists of 17 items measuring understandability and 7 items measuring actionability.

Title of Material:

Name of Reviewer:

Review Date:

UNDERSTANDABILITY

Item #	Item	Response Options	Rating
Topic: Content			
1	The material makes its purpose completely evident.	Disagree = 0, Agree = 1	
2	The material does not include information or content that distracts from its purpose.	Disagree = 0, Agree = 1	
Topic: Word Choice & Style			
3	The material uses common, everyday language.	Disagree = 0, Agree = 1	
4	Medical terms are used only to familiarize the audience with the terms. When used, medical terms are defined.	Disagree = 0, Agree = 1	
5	The material uses the active voice.	Disagree = 0, Agree = 1	
Topic: Use of Numbers			
6	Numbers appearing in the material are clear and easy to understand.	Disagree = 0, Agree = 1, No numbers = N/A	
7	The material does not expect the user to perform calculations.	Disagree = 0, Agree = 1	
Topic: Organization			
8	The material breaks or “chunks” information into short sections.	Disagree = 0, Agree = 1, Very short material* = N/A	
9	The material’s sections have informative headers.	Disagree = 0, Agree = 1, Very short material* = N/A	
10	The material presents information in a logical sequence.	Disagree = 0, Agree = 1	
11	The material provides a summary.	Disagree = 0, Agree = 1, Very short material* = N/A	
Topic: Layout & Design			
12	The material uses visual cues (e.g., arrows, boxes, bullets, bold, larger font, highlighting) to draw attention to key points.	Disagree = 0, Agree = 1, Video = N/A	
Topic: Use of Visual Aids			
13	The material uses visual aids whenever they could make content more easily understood (e.g., illustration of healthy portion size).	Disagree = 0, Agree = 1	

*A very short print material is defined as a material that has two or fewer paragraphs and is no more than 1 page in length

UNDERSTANDABILITY

Item #	Item	Response Options	Rating
14	The material's visual aids reinforce rather than distract from the content.	Disagree = 0, Agree = 1, No visual aids = N/A	
15	The material's visual aids have clear titles or captions.	Disagree = 0, Agree = 1, No visual aids = N/A	
16	The material uses illustrations and photographs that are clear and uncluttered.	Disagree = 0, Agree = 1, No visual aids = N/A	
17	The material uses simple tables with short and clear row and column headings.	Disagree = 0, Agree = 1, No tables = N/A	

Total Points:_____

Total Possible Points:_____

Understandability Score (%):_____

*(Total Points /
Total Possible Points) x 100*

ACTIONABILITY

Item #	Item	Response Options	Rating
18	The material clearly identifies at least one action the user can take.	Disagree = 0, Agree = 1	
19	The material addresses the user directly when describing actions.	Disagree = 0, Agree = 1	
20	The material breaks down any action into manageable, explicit steps.	Disagree = 0, Agree = 1	
21	The material provides a tangible tool (e.g., menu planners, checklists) whenever it could help the user take action.	Disagree = 0, Agree = 1	
22	The material provides simple instructions or examples of how to perform calculations.	Disagree = 0, Agree = 1, No calculations = NA	
23	The material explains how to use the charts, graphs, tables, or diagrams to take actions.	Disagree = 0, Agree = 1, No charts, graphs, tables, or diagrams = N/A	
24	The material uses visual aids whenever they could make it easier to act on the instructions.	Disagree = 0, Agree = 1	

Total Points:_____

Total Possible Points:_____

Actionability Score (%):_____

*(Total Points /
Total Possible Points) x 100*

PMAT-A/V for audiovisual materials consists of 13 items measuring understandability and 4 items measuring actionability.

Title of Material:

Name of Reviewer:

Review Date:

UNDERSTANDABILITY

Item #	Item	Response Options	Rating
Topic: Content			
1	The material makes its purpose completely evident.	Disagree = 0, Agree = 1	
Topic: Word Choice & Style			
2	The material uses common, everyday language.	Disagree = 0, Agree = 1	
3	Medical terms are used only to familiarize the audience with the terms. When used, medical terms are defined.	Disagree = 0, Agree = 1	
4	The material uses the active voice.	Disagree = 0, Agree = 1	
Topic: Organization			
5	The material breaks or “chunks” information into short sections.	Disagree = 0, Agree = 1, Very short material* = N/A	
6	The material’s sections have informative headers.	Disagree = 0, Agree = 1, Very short material* = N/A	
7	The material presents information in a logical sequence.	Disagree = 0, Agree = 1	
8	The material provides a summary.	Disagree = 0, Agree = 1, Very short material* = N/A	
Topic: Layout & Design			
9	The material uses visual cues (e.g., arrows, boxes, bullets, bold, larger font, highlighting) to draw attention to key points.	Disagree = 0, Agree = 1 Video = N/A	
10	Text on the screen is easy to read.	Disagree = 0, Agree = 1, No text or all text is narrated = N/A	
11	The material allows the user to hear the words clearly (e.g., not too fast, not garbled).	Disagree = 0, Agree = 1, No narration = N/A	

APPENDIX 2: PATIENT EDUCATION STYLE MANUAL

Item #	Item	Response Options	Rating
Topic: Use of Visual Aids			
12	The material uses illustrations and photographs that are clear and uncluttered.	Disagree = 0, Agree = 1 No visual aids = N/A	
13	The material uses simple tables with short and clear row and column headings.	Disagree = 0, Agree = 1 No tables = N/A	

*A very short audiovisual material is defined as a video or multimedia presentation that is under 1 minute, or a multimedia material that has 6 or fewer slides or screenshot.

Total Points: _____

Total Possible Points: _____

Understandability Score (%): _____

*(Total Points /
Total Possible Points) x 100*

ACTIONABILITY

Item #	Item	Response Options	Rating
14	The material clearly identifies at least one action the user can take.	Disagree = 0, Agree = 1	
15	The material addresses the user directly when describing actions.	Disagree = 0, Agree = 1	
16	The material breaks down any action into manageable, explicit steps.	Disagree = 0, Agree = 1	
17	The material explains how to use the charts, graphs, tables, or diagrams to take actions.	Disagree = 0, Agree = 1, No charts, graphs, tables, diagrams = N/A	

Total Points: _____

Total Possible Points: _____

Actionability Score (%): _____

*(Total Points /
Total Possible Points) x 100*

DISCERN

Quality Criteria for Consumer Information on Treatment Choices

www.discern.org.uk/discern_instrument.php

SECTION 1**1. Are the aims clear?**

RATING THIS QUESTION

No		Partially		Yes	
1	2	3	4	5	6

HINT: Look for a clear indication at the beginning of the publication of:

- what it is about
- what it is meant to cover (and what topics are meant to be excluded)
- who might find it useful

If the answer to Question 1 is 'No', go directly to Question 3

2. Does it achieve its aims?

RATING THIS QUESTION

No		Partially		Yes	
1	2	3	4	5	6

HINT: Consider whether the publication provides the information it aimed to as outlined in Question 1.

3. Is it relevant?

RATING THIS QUESTION

No		Partially		Yes	
1	2	3	4	5	6

HINT: Consider whether:

- the publication addresses the questions that readers might ask.
- recommendations and suggestions concerning treatment choices are realistic or appropriate. Is it clear what sources of information were used to compile the publication (other than the author or producer)?

4. Is it clear what sources of information were used to compile the publication (other than the author or producer)?

RATING THIS QUESTION

No		Partially		Yes	
1	2	3	4	5	6

HINT:

- Check whether the main claims or statements made about treatment choices are accompanied by a reference to the sources used as evidence, e.g., a research study or expert opinion.
- Look for a means of checking the sources used such as a bibliography/ reference list or the addresses of the experts or organizations quoted, or external links to the online sources. Rating note: In order to score a full '5' the publication should fulfil both hints. Lists of additional sources of support and information (Question 7) are not necessarily sources of evidence for the current publication.

5. Is it clear when the information used or reported in the publication was produced?

RATING THIS QUESTION

No		Partially		Yes	
1	2	3	4	5	6

HINT: Look for:

- dates of the main sources of information used to compile the publication.
- date of any revisions of the publication (but not dates of reprinting in the case of print publications).
- date of publication (copyright date). Rating note: The hints are placed in order of importance – in order to score a full "5" the dates relating to the first hint should be found.

6. Is it balanced and unbiased?

RATING THIS QUESTION

No		Partially		Yes	
1	2	3	4	5	6

HINT: Consider whether:

- a clear indication of whether the publication is written from a personal or objective point of view.
- evidence that a range of sources of information was used to compile the publication, e.g., more than one research study or expert.
- evidence of an external assessment of the publication.

Be wary if:

- the publication focuses on the advantages or disadvantages of one particular treatment choice without reference to other possible choices.
- the publication relies primarily on evidence from single cases (which may not be typical of people with this condition or of responses to a particular treatment).
- the information is presented in a sensational, emotive, or alarmist way.

6. Is it balanced and unbiased?

RATING THIS QUESTION

No		Partially		Yes	
1	2	3	4	5	6

HINT: Consider whether:

- a clear indication of whether the publication is written from a personal or objective point of view.
- evidence that a range of sources of information was used to compile the publication, e.g., more than one research study or expert.
- evidence of an external assessment of the publication.

Be wary if:

- the publication focuses on the advantages or disadvantages of one particular treatment choice without reference to other possible choices.
- the publication relies primarily on evidence from single cases (which may not be typical of people with this condition or of responses to a particular treatment).
- the information is presented in a sensational, emotive, or alarmist way.

7. Does it provide details of additional sources of support and information?

RATING THIS QUESTION

No		Partially		Yes	
1	2	3	4	5	6

HINT: Look for suggestions for further reading or for details of other organizations providing advice and information about the condition and treatment choices.

8. Does it refer to areas of uncertainty?

RATING THIS QUESTION

No		Partially		Yes	
1	2	3	4	5	6

HINT:

- a clear indication of whether the publication is written from a personal or objective point of view.
- evidence that a range of sources of information was used to compile the publication, e.g., more than one research study or expert.

SECTION 2

How good is the quality of information on treatment choices?

N.B. The questions apply to the treatment (or treatments) described in the publication. Self-care is considered a form of treatment throughout this section.

9. Does it describe how each treatment works?

RATING THIS QUESTION

No		Partially		Yes	
1	2	3	4	5	6

HINT: Look for a description of how a treatment acts on the body to achieve its effect.

10. Does it describe the benefits of each treatment?

RATING THIS QUESTION

No		Partially		Yes	
1	2	3	4	5	6

HINT: Benefits can include controlling or getting rid of symptoms preventing recurrence of the condition, and eliminating the condition, both short-term and long-term.

11. Does it describe the risks of each treatment?

RATING THIS QUESTION

No		Partially		Yes	
1	2	3	4	5	6

HINT: Risks can include side effects, complications, and adverse reactions to treatment, both short-term and long-term.

12. Does it describe what would happen if no treatment is used?

RATING THIS QUESTION

No		Partially		Yes	
1	2	3	4	5	6

HINT: Look for a description of the risks and benefits of postponing treatment, of watchful waiting (i.e., monitoring how the condition progresses without treatment), or of permanently forgoing treatment.

13. Does it describe how the treatment choices affect overall quality of life?

RATING THIS QUESTION

No		Partially		Yes	
1	2	3	4	5	6

HINT: Look for:

- description of the effects of the treatment choices on day-to-day activity.
- description of the effects of the treatment choices on relationships with family, friends, and carers.

13. Does it describe how the treatment choices affect overall quality of life?

RATING THIS QUESTION

No		Partially		Yes	
1	2	3	4	5	6

HINT: Look for:

- description of the effects of the treatment choices on day-to-day activity.
- description of the effects of the treatment choices on relationships with family, friends, and carers.

14. Is it clear that there may be more than one possible treatment choice?

RATING THIS QUESTION

No		Partially		Yes	
1	2	3	4	5	6

HINT: Look for:

- a description of who is most likely to benefit from each treatment choice mentioned, and under what circumstances.
- suggestions of alternatives to consider or investigate further (including choices not fully described in the publication) before deciding whether to select or reject a particular treatment choice.

15. Does it provide support for shared decision-making?

RATING THIS QUESTION

No		Partially		Yes	
1	2	3	4	5	6

HINT: Look for suggestions of things to discuss with family, friends, and doctors or other health professionals concerning treatment choices.

SECTION 3

Overall Rating of the Publication

16. Based on the answers to all of the above questions, rate the overall quality of the publication as a source of information about treatment choices.

RATING THIS QUESTION

Low		Moderate		High
<i>Serious or extensive shortcomings</i>		<i>Potentially important but not serious shortcomings</i>		<i>Minimal shortcomings</i>
1	2	3	4	5

Advice to Reviewers

When rating material as a reviewer, read through the P-GATS and reviewer form completely to familiarize yourself with the key principles and rating criteria.

Read or review the patient education material you are rating in its entirety.

Go through the scoring form item by item, referring back to the material at any time while you complete the form.

Unless you are serving solely as a content reviewer for accuracy, do not use any knowledge you have about the subject before you read or view the patient education material. Base your ratings ONLY on what is in the material you are rating.

Rate each item separately and distinctly from how you rate the other items.

References

Shoemaker SJ, Wolf MS, Brach C. The Patient Education Materials Assessment Tool (PEMAT) and User's Guide. (Prepared by Abt Associates, Inc. under Contract No. HHS 2902009000121, TO4). Rockville, MD: Agency for Healthcare Research and Quality; Nov 2013. AHRQ Publication No. 14-0002-EF.

Shoemaker SJ, Wolf MS, Brach C. Development of the Patient Education Materials Assessment Tool (PEMAT): A new measure of understandability and actionability for print and audiovisual patient information. *Patient Education Counseling* 2014;96:395-403.

Other health education material assessment tools include:

DISCERN – See description beginning on p. 28.

SAM – Suitability Assessment of Materials for evaluation of health-related information for adults. This systematic evaluation method was developed by Doak and Doak to address the overall suitability of materials, including reading grade level. It was developed for print materials, but has been used to assess audiovisual materials as well. The SAM scores materials in six categories: content, literacy demand, graphics, layout and typography, learning stimulation, and cultural appropriateness. (Doak, Doak, & Root's *Teaching Patients with Low Literacy Skills*, 2nd edition, JB Lippincott CO, 1996)