

# DESIGNING SEPSIS EDUCATION FOR PATIENTS & FAMILIES

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# Objectives

1. Review current sepsis patient education practices
2. Demonstrate strategies for developing quality patient education tools
3. Evaluate available sepsis educational material

# Introduction

- More than 750,000 sepsis cases occur in the U.S. annually and sepsis is one of the leading causes of death worldwide (Angus et al., 2001).
- In 2013, sepsis was the most expensive hospital condition with costs of \$23.7 billion dollars per year (Torio & Moore, 2016).
- Quality improvement efforts in sepsis care have led to decreased mortality (Levy et al., 2014).
- Recently, sepsis survivors have been recognized to be at increased risk for hospital readmission (Goodwin, Rice, Simpson, & Ford, 2015; Levy et al., 2014).

# Cost

The 20 most expensive conditions treated in U.S. hospitals, all payers, 2013					
Rank	CCS principal diagnosis category	Aggregate hospital costs, \$ millions	National costs, %	Number of hospital stays, thousands	Hospital stays, %
1	Septicemia	23,663	6.2	1,297	3.6
2	Osteoarthritis	16,520	4.3	1,023	2.9
3	Liveborn	13,287	3.5	3,765	10.6
4	Complication of device, implant or graft	12,431	3.3	632	1.8
5	Acute myocardial infarction	12,092	3.2	602	1.7
6	Congestive heart failure	10,218	2.7	882	2.5
7	Spondylosis, intervertebral disc disorders, other back problems	10,198	2.7	555	1.6
8	Pneumonia	9,501	2.5	961	2.7
9	Coronary atherosclerosis	9,003	2.4	458	1.3
10	Acute cerebrovascular disease	8,840	2.3	585	1.6

Torio, C. & Moore, B. (2016). *National Inpatient Hospital Costs: The Most Expensive Conditions by Payer, 2013*. Retrieved from <https://www.hcup-us.ahrq.gov/reports/statbriefs/sb204-Most-Expensive-Hospital-Conditions.jsp>

Table. Length of Stay and Cost for Unplanned 30-Day Readmissions After an Index Admission for Sepsis, Acute Myocardial Infarction, Heart Failure, Pneumonia, and Chronic Obstructive Pulmonary Disease

	National Readmission Data <sup>a</sup>		Estimated Mean Cost per Readmission (95% CI), \$ <sup>b</sup>	Weighted Proportion of Cases in the United States	
	No. of All Index Admissions Readmitted Within 30 Days	Estimated Mean Length of Stay (95% CI), d <sup>b</sup>		Percentage of Index Admissions Readmitted Within 30 Days (95% CI)	Percentage of Total Estimated Cost of All Readmissions (95% CI)
Admissions associated with 30 d readmission	1 187 697	6.4 (6.4-6.5)	8242 (8225-8258)	NA	100.0
<b>Primary Analyses<sup>c</sup></b>					
Sepsis	147 084	7.4 (7.3-7.4)	10 070 (10 021-10 119)	12.2 (11.9-12.4)	14.5 (14.2-14.8)
Acute myocardial infarction	15 001	5.7 (5.6-5.8)	9424 (9279-9571)	1.2 (1.2-1.3)	1.4 (1.3-1.5)
Heart failure	79 480	6.4 (6.4-6.5)	9051 (8990-9113)	6.7 (6.5-6.8)	7.5 (7.3-7.7)
Pneumonia	59 378	6.7 (6.6-6.7)	9533 (9466-9600)	5.2 (5.0-5.3)	5.5 (5.4-5.7)
Chronic obstructive pulmonary disease	54 396	6.0 (5.9-6.0)	8417 (8355-8480)	4.6 (4.5-4.8)	4.3 (4.1-4.4)
<b>Sensitivity Analyses<sup>d</sup></b>					
Sepsis	89 800	7.6 (7.6-7.7)	10 828 (10 760-10 897)	7.3 (7.1-7.5)	9.1 (8.8-9.4)
Acute myocardial infarction	21 281	6.0 (5.9-6.1)	9530 (9408-9654)	1.8 (1.7-1.8)	2.0 (1.9-2.1)
Heart failure	236 636	6.5 (6.5-6.5)	9248 (9211-9285)	20.0 (19.6-20.4)	22.1 (21.6-22.6)
Pneumonia	130 904	6.9 (6.9-7.0)	9749 (9700-9797)	11.1 (10.9-11.4)	12.5 (12.2-12.8)
Chronic obstructive pulmonary disease	201 867	6.3 (6.3-6.4)	8677 (8641-8713)	17.4 (17-17.7)	17.2 (16.7-17.7)

Mayr, F. B., Talisa, V. B., Balakumar, V., Chang, C. H., Fine, M., & Yende, S. (2017). Proportion and cost of unplanned 30-day readmissions after sepsis compared with other medical conditions. *Journal of the American Medical Association*, 317(5), 530. doi:10.1001/jama.2016.20468

# Sepsis Readmission Characteristics

- The most common infections were urinary tract and respiratory infections.
- 1 in 20 severe sepsis patients experience an unplanned readmission within 7 days (median 6.6%) of hospital discharge.



Severe sepsis patients readmitted within 30 days (median 19.3%).

# Sepsis Survivors and Outcomes

- Sepsis survivors frequently have long-term sequelae that requires management of potential complications.
- Readmissions after sepsis is more likely to result in death or hospice care.



# Survey *Transition of Care*

- Transition of Care domain is most highly correlated with **RATE THE HOSPITAL**. Reporting began in 2017.
- Greater visibility into the issues of the discharge process that lead to avoidable readmission.

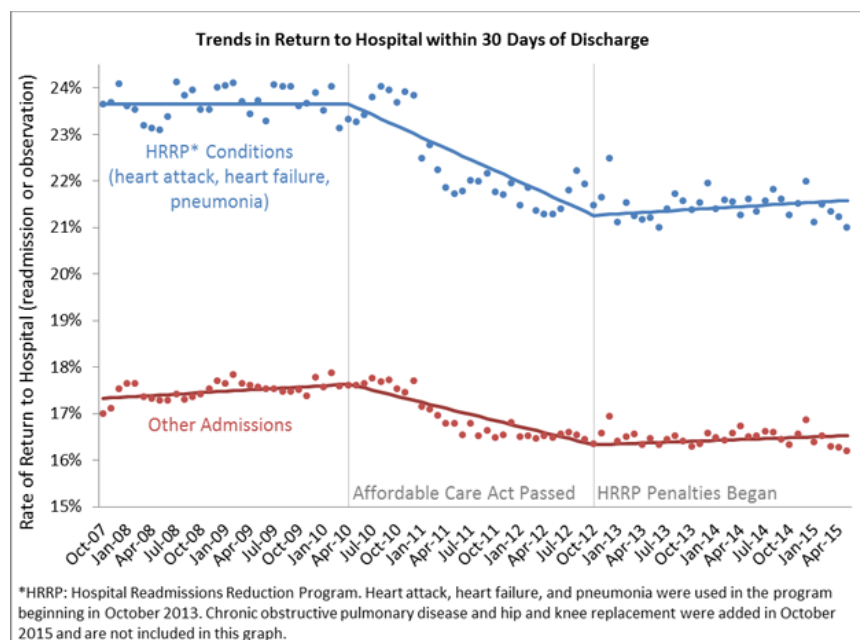
## Three Questions: Agree, Disagree and Strongly Agree

1. *During this hospital stay, staff took my **preferences** and those of my family or caregiver into account in deciding what my health care needs would be when I left the hospital.*
2. *When I left the hospital, I had a good understanding of the things I was **responsible** for in managing my health.*
3. *When I left the hospital, I clearly understood the **purpose** for taking each of my medications.*



# Lessons Learned from the Hospital Readmissions Reduction Program

- Medication counseling
- **Enhanced discharge** planning and follow-up
- **Coaching** patients and caregivers
- **Partnering** hospitals with community physicians and skilled care facilities
- Nurses **educate patients** prior to discharge



(American Hospital Association, 2015)

# Patient Empowerment is Needed



- Improve understanding of sepsis
- Reduce complications & hospital admissions
- Better healthcare experience
- Benefit to patient, providers and tax payers

# An Evaluation of Sepsis Web Sites for Patient and Family Education

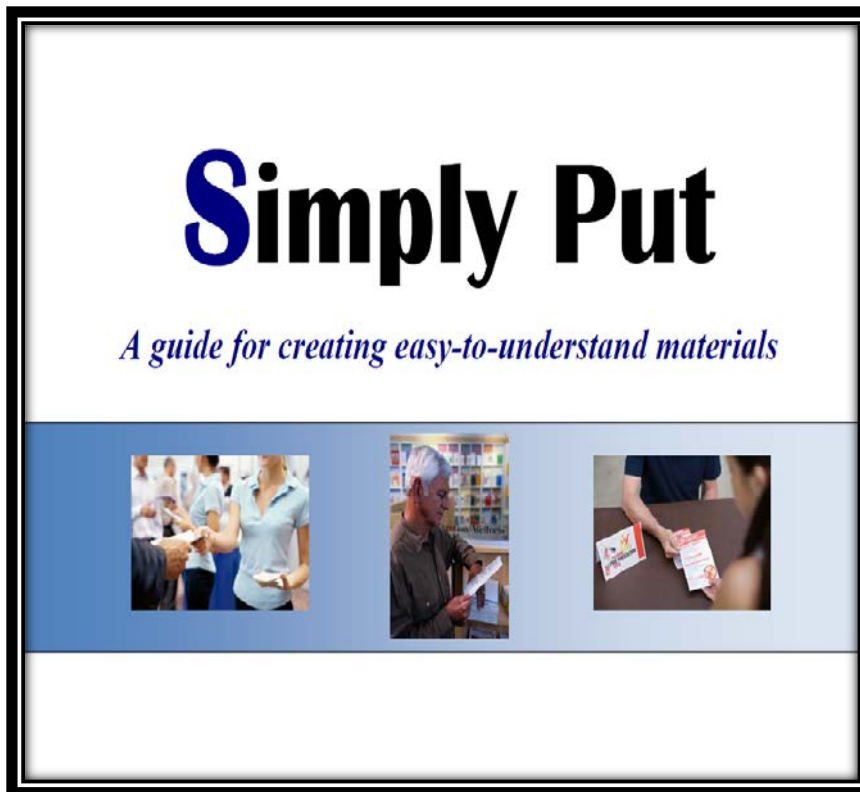
Marilyn H. Oermann, PhD, RN, FAAN  
Sean M. McInerney, MSN, RN, NP



TABLE 2 Five Quality Web Sites on Sepsis for Patient and Family Education

Web site	E-mail address	Description
International Sepsis Forum	<a href="http://www.sepsisforum.org/">http://www.sepsisforum.org/</a>	It has link to booklet <i>Promoting a Better Understanding of Sepsis</i> , written for consumers. Booklet can be printed off (PDF format) in 8 languages. Presents key points about sepsis using text and visuals. Well laid out guide for the general public with a glossary of terms in the back and links to additional reading. Site displays HON certification.
eMedicineHealth	<a href="http://www.emedicinehealth.com/sepsis_blood_infection/article_em.htm">http://www.emedicinehealth.com/sepsis_blood_infection/article_em.htm</a>	Site provides links from causes to treatments. Contains essential content related to sepsis. Healthcare terms in text have links to their definitions; good educational resource for patients and families. Site is product of WebMD. HON accredited.
Medline Plus (National Library of Medicine/National Institute of Health) Health Topics: Sepsis	<a href="http://www.nlm.nih.gov/medlineplus/sepsis.html">http://www.nlm.nih.gov/medlineplus/sepsis.html</a>	Government site that contains multiple links to outside sources. Links allow consumer to read similar definitions of sepsis and detailed information related to blood cultures. Site also has links to clinical trials. A number of links are HON accredited. Site meets HON standards and provides essential content on sepsis.
Medline Plus (National Library of Medicine/National Institute of Health) Medical Encyclopedia: Sepsis	<a href="http://www.nlm.nih.gov/medlineplus/ency/article/000666.htm">http://www.nlm.nih.gov/medlineplus/ency/article/000666.htm</a>	Well-organized site that contains links to words in the text for further explanation. Site also contains link to septic shock, which provides more detailed information. Has explicit statement at Web site that the information does not take the place of physician-patient interaction. Site meets HON standards and provides essential content on sepsis.
Sepsis.com	<a href="http://www.sepsis.com/family_friends/family_friends.jsp?reqNavId=5">http://www.sepsis.com/family_friends/family_friends.jsp?reqNavId=5</a>	Site is for health professionals but has good section for consumers to teach them about sepsis. Authored by Eli Lilly and Co., which is clear at the site. Material is accurate and complete, with links to reputable Web sites. Statements include citations for support; has link to reference list. Site meets HON standards except <i>Authority</i> (material appears to be written by health professionals but credentials not stated explicitly).

# Readability



Readability Statistics	
<b>Counts</b>	
Words	775
Characters	4083
Paragraphs	42
Sentences	53
<b>Averages</b>	
Sentences per Paragraph	1.8
Words per Sentence	13.0
Characters per Word	4.9
<b>Readability</b>	
Passive Sentences	7%
Flesch Reading Ease	49.9
Flesch-Kincaid Grade Level	9.5

OK

# EVALUATION OF PRINTABLE SEPSIS PATIENT EDUCATION MATERIAL FOR USABILITY AND ACTIONABILITY

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# Practicum Experience – Patient Education Resources

## SEPSIS FACT SHEET

A POTENTIALLY DEADLY OUTCOME FROM AN INFECTION



**What should I do if I think I have an infection or sepsis?**

- Call your doctor or go to the emergency room immediately if you have any signs or symptoms of an infection or sepsis. This is a medical emergency.
- It's important that you say, "I am concerned about sepsis."
- If you are continuing to feel worse or not getting better in the days after surgery, ask your doctor about sepsis. Sepsis is a common complication of people hospitalized for other reasons.

**What is sepsis?**  
Sepsis is a complication caused by the body's overwhelming and life-threatening response to an infection, which can lead to tissue damage, organ failure, and death.

**When can you get sepsis?**  
Sepsis can occur to anyone, at any time, from any type of infection, and can affect any part of the body. It can occur even after a minor infection.

**What causes sepsis?**  
Infections can lead to sepsis. An infection occurs when germs enter a person's body and multiply, causing illness and organ and tissue damage. Certain infections and germs lead to sepsis most often. Sepsis is often associated with infections of the lungs (e.g., pneumonia), urinary tract (e.g., kidney), skin, and gut. *Staphylococcus aureus* (staph), *Escherichia coli* (*E. coli*), and some types of *Streptococcus* (strep) are common germs that can cause sepsis.

**Are certain people with an infection more likely to get sepsis?**  
Anyone can develop sepsis from an infection, especially when not treated properly. However, sepsis occurs most often in people aged 65 years or older or less than 1 year, have weakened immune systems, or have chronic medical conditions (e.g., diabetes).  
A CDC evaluation found more than 90% of adults and 70% of children who developed sepsis had a health condition that may have put them at risk.

Ask your doctor about your risk for getting sepsis. If you suspect sepsis, ask your doctor, "Could it be sepsis?"

**What are the symptoms of sepsis?**  
There is no single sign or symptom of sepsis. It is, rather, a combination of symptoms. Since sepsis is the result of an infection, symptoms can include infection signs (e.g., fever, vomiting, sore throat, etc.), as well as **ANY** of the **SYMPTOMS** below:



Shivering, fever, or very cold



Extreme pain or discomfort



Clammy, or sweaty skin



Confusion or disorientation



Short of breath



High heart rate



Centers for Disease Control and Prevention  
National Center for Emerging and Zoonotic Infectious Diseases  
CS257671C

### Discharge Instructions for Sepsis -- Adult

Sepsis is an inflammatory response of the whole body that is caused by an infection. Sepsis is a severe condition that can put a lot of stress on all the body's systems.

Common approaches include home care and medications.

**Steps to Take**

#### Home Care

You may feel fatigue or experience some complications for several weeks following your hospital stay. To help with your recovery:

- Arrange to have help at home for daily tasks until your health improves.
- Rest as needed, but keep in mind that complete bed rest is generally not required.
- Use any assisted devices, such as walkers or wheelchairs as instructed.

#### Physical Activity

You may need to restrict your activity while you recover. Slowly return to normal activity as tolerated. Your doctor or physical therapist may advise a rehabilitation program. Ask your doctor when you will be able to return to work and drive.

**Medications**

Your doctor may advise:

- Antibiotics for the infection
- Medications to relieve other symptoms

It is important to take all of the antibiotics as prescribed, even when you are feeling well.

If you are taking medications, follow these general guidelines:

- Take your medications as directed. Do not change the amount or the schedule.
- Ask what side effects could occur. Discuss them with your doctor.
- Talk to your doctor before you stop taking any prescription medication.
- Do not share your prescription medication with anyone.
- Drugs can be dangerous when mixed. Talk to your doctor if you are taking more than one drug, including over-the-counter products and supplements.

**Prevention**

To reduce your chance of developing sepsis:

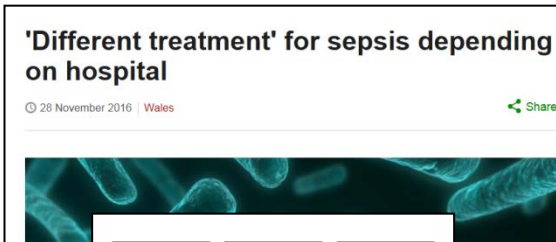
Versus

# Problem Identification

1. Despite the high incidence of sepsis, and its associated high cost and mortality, public knowledge and patient educational resources are lacking.
2. Early sepsis recognition and treatment are essential to improve patient outcomes.
3. Patient delays in seeking treatment due to lack of knowledge regarding the symptoms of sepsis may contribute to poor outcomes (Rubulotta et al., 2009).



# Why is this project important, now?



Currently no standards exist regarding effective methods or tools to provide valuable sepsis patient/caregiver discharge education.

## Illinois Governor Signs Mandatory Sepsis Protocols into Law

Posted on August 18, 2016



UPDATE

ILLINOIS GOVERNOR SIGNS MANDATORY SEPSIS PROTOCOLS INTO LAW

Gabby's Law honors Gabrielle Galbo who died of sepsis at age 5

Published: Thursday, December 8th 2016, 1:53 pm EST  
Updated: Thursday, December 8th 2016, 2:25 pm EST  
By Tonya Terry, Anchor / Reporter | CONNECT

By ASHLEY WELCH | CBS NEWS | October 5, 2015, 6:00 AM

## Families warn of sudden, deadly threat of sepsis



THIRTEEN-year-old Katie McQuestion died of sepsis, though doctors do not know how she contracted it | ANN CESHIN

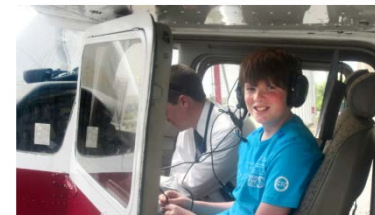
8 Comments / Share / Tweet / Stumble / Email

Last December, 26-year-old Katie McQuestion of Kenosha, Wisconsin, went to the hospital with a suspected case of the flu. Four days later, she died.

## An Infection, Unnoticed, Turns Unstoppable

About New York

By DAN O'NEILL | OCT 11, 2012



Rory Sheaton taking his first flying lesson in 2011.



HEALTH TEAM

## Teen lucky to be alive after oral surgery results in sepsis

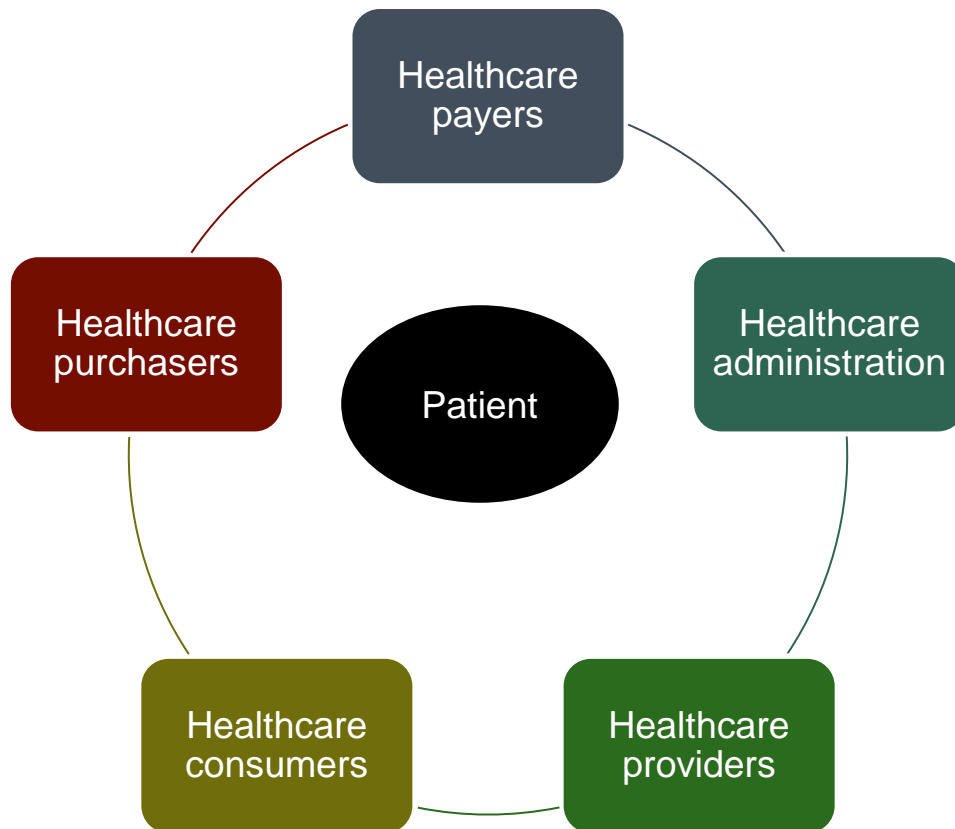
Posted July 7, 2016



# Literature Review-Search Strategy

- Literature search included references for sepsis patient and caregiver knowledge, discharge education or tools and patient outcomes/readmissions in an acute setting.
- PubMed, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane Library, the British Medical Journal of Quality and the Virginia Henderson library.
- No literature specific to sepsis patient or caregiver sepsis discharge education/tools or sepsis discharge education strategies to prevent readmissions.
- Two references evaluated patient knowledge of the risk of sepsis post-splenectomy. (White et al., 1991; Wilkes, Wills, & Smith, 2008).

# Stakeholders



- Local
- State
- National
- International
- CDC
- CMS
- Patient advocacy
- National Quality Forum
- Others

# Definitions

- **Understandability** is defined as patient educational material that is understandable by individuals from various backgrounds and health literacy to process and explain important messages (Shoemaker et al., 2014).
- **Actionability** is the ability of the individual to identify what action they can take based on the information provided in the educational material (Shoemaker et al., 2014).

# Project Purpose

- The purpose of this project is to evaluate the **understand**ability and **actio**nability of the CDC *Sepsis Fact Sheet* using the Patient Education Materials Assessment Tool (PEMAT-P) for printable material.

The graphic displays a section of a 'SEPSIS FACT SHEET'. On the left, a green speech bubble labeled 'Action' points to a yellow box containing the heading 'What should I do if I think I have an infection or sepsis?' and a bullet point: 'Call your doctor or go to the emergency room immediately if you have any signs or symptoms of an infection or sepsis. This is a medical emergency.' On the right, a white speech bubble labeled 'Understand' points to the main text area of the fact sheet. The fact sheet itself has a dark red header with the title 'SEPSIS FACT SHEET' and a subtitle 'A POTENTIALLY DEADLY OUTCOME FROM AN INFECTION'. Below the subtitle, it includes sections for 'What is sepsis?', 'When can you get sepsis?', and 'What causes sepsis?'.

**Action**

**What should I do if I think I have an infection or sepsis?**

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**SEPSIS FACT SHEET**

**A POTENTIALLY DEADLY OUTCOME FROM AN INFECTION**

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**Understand**

# Project Resources



- The Centers for Disease Control and Prevention (CDC) *Sepsis Fact Sheet* (CDC, 2016).
  - International agency with worldwide influence
  - Web-based patient education tool
  - 2016 Campaign to urge sepsis awareness
- Agency for Healthcare Research and Quality (AHRQ) Patient Education Materials Assessment Tool for printable material (PEMAT-P) (Shoemaker, Wolf, & Brach, 2013).
  - Developed by experts in health literacy, content creation, patient education and communication.
  - Demonstrated strong internal consistency, reliability and evidence of construct validity.

# Sepsis Fact Sheet

## SEPSIS FACT SHEET

A POTENTIALLY DEADLY OUTCOME FROM AN INFECTION



### What should I do if I think I have an infection or sepsis?

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Short of breath



High heart rate



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National Center for Emerging and Zoonotic Infectious Diseases

CS25N71C

## SEPSIS FACT SHEET

### How is sepsis diagnosed?

Doctors diagnose sepsis using a number of physical findings like fever, increased heart rate, and increased breathing rate. They also do lab tests that check for signs of infection.

Many of the symptoms of sepsis, such as fever and difficulty breathing, are the same as in other conditions, making sepsis hard to diagnose in its early stages.

### How is sepsis treated?

People with sepsis are usually treated in the hospital. Doctors try to treat the infection, keep the vital organs working, and prevent a drop in blood pressure.

Doctors treat sepsis with therapy, such as appropriate use of antibiotics, as soon as possible. Many patients receive oxygen and intravenous (IV) fluids to maintain normal blood oxygen levels and blood pressure.

Other types of treatment, such as assisting breathing with a machine or kidney dialysis, may be necessary. Sometimes surgery is required to remove tissue damaged by the infection.

### Are there any long-term effects of sepsis?


Many people who have sepsis recover completely and their lives return to normal. But some people may experience permanent organ damage. For example, in someone who already has kidney problems, sepsis can lead to kidney failure that requires lifelong dialysis.

### How can I prevent sepsis?


- 1 GET VACCINATED** against the flu, pneumonia, and any other infections that could lead to sepsis. Talk to your doctor for more information.
- 2 PREVENT INFECTIONS** that can lead to sepsis by:
  - **Cleaning** scrapes and wounds
  - Practicing good **hygiene** (e.g., hand washing)
- 3 LEARN THE SIGNS AND SYMPTOMS** of sepsis. If sepsis is suspected, seek medical attention immediately.

### Where can I get more information?

- Centers for Disease Control and Prevention (CDC)—CDC works 24/7 protecting America's health, safety and security. Whether diseases start at home or abroad, are curable or preventable, chronic or acute, stem from human error or deliberate attack, CDC is committed to responding to America's most pressing health challenges.  
[cdc.gov/sepsis](http://cdc.gov/sepsis)  
[cdc.gov/cancer/preventinfections](http://cdc.gov/cancer/preventinfections)
- The Rory Staunton Foundation for Sepsis Prevention—Supports education and outreach efforts aimed at rapid diagnosis and treatment of sepsis, particularly in children.  
[rorystauntonfoundationforsepsis.org](http://rorystauntonfoundationforsepsis.org)
- Sepsis Alliance®—Created to raise sepsis awareness among both the general public and healthcare professionals. Sepsis Alliance offers information on a variety of sepsis-related topics. Visit [sepsis.org/library](http://sepsis.org/library) to view the complete series of titles.  
[sepsis.org](http://sepsis.org)



THE RORY STAUNTON FOUNDATION  
FOR SEPSIS PREVENTION

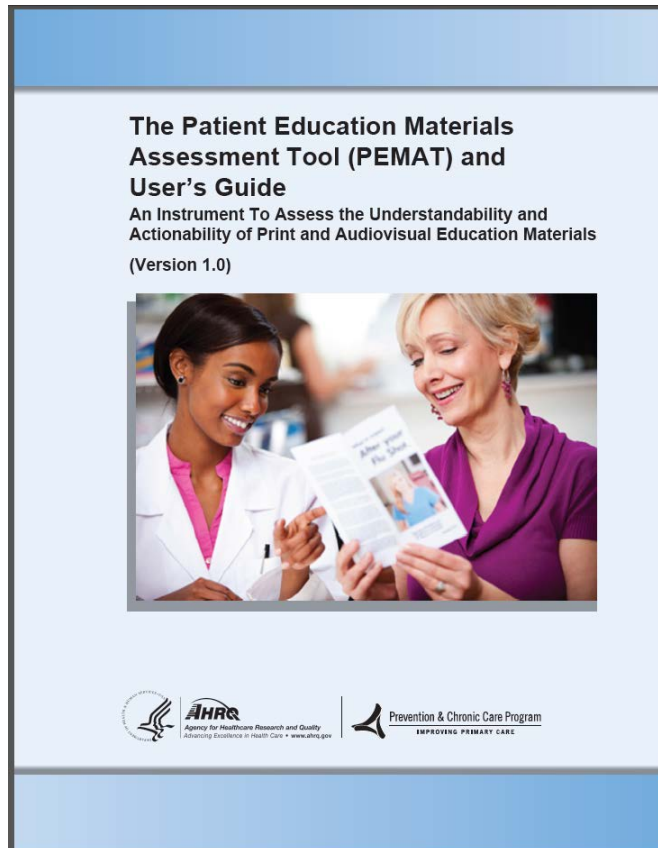


SEPSIS ALLIANCE  
Supports People. Saves Lives.

This fact sheet was developed in collaboration with CDC, Sepsis Alliance® and the Rory Staunton Foundation for Sepsis Prevention.

(CDC, 2016)

# An Introduction to the Patient Education Materials Assessment Tool (PEMAT) and User's Guide



There are two versions of the PEMAT:

1. **PEMAT-P** for printable materials (e.g., brochures, pamphlets, PDFs), consisting of 17 items measuring understandability and 7 items measuring actionability.
2. **PEMAT-A/V** for audiovisual materials (e.g., videos, multimedia materials), consisting of 13 items measuring understandability and 4 items measuring actionability.

# *Are All Materials With High PEMAT Scores High Quality?*

- The PEMAT does not assess accuracy or comprehensiveness or perform readability tests. For example, a material could be very understandable but contain inaccurate information. You will want to supplement the PEMAT with additional assessments.
- We **recommend conducting a readability assessment** for print materials in conjunction with using the PEMAT. Using only a readability formula, however, is not a substitute for using the PEMAT.



# PEMAT Scoring Tool

Read the PEMAT User's Guide (available at: <http://www.ahrq.gov/professionals/prevention-chronic-care/improve/self-mgmt/pemat/>) before rating materials.

## UNDERSTANDABILITY

Item #	Item	Response Options	Rating
<b>Topic: Content</b>			
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	
<b>Topic: Word Choice &amp; Style</b>			
3	The material uses common, everyday language.	Disagree=0, Agree=1	
4	Medical terms are used only to familiarize 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	
<b>Topic: Use of Numbers</b>			
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	
<b>Topic: Organization</b>			
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	
<b>Topic: Layout &amp; Design</b>			
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	

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

Item #	Item	Response Options	Rating
<b>Topic: Use of Visual Aids</b>			
15	The material uses visual aids whenever they could make content more easily understood (e.g., illustration of healthy portion size).	Disagree=0, Agree=1	
16	The material's visual aids reinforce rather than distract from the content.	Disagree=0, Agree=1, No visual aids=N/A	
17	The material's visual aids have clear titles or captions.	Disagree=0, Agree=1, No visual aids=N/A	
18	The material uses illustrations and photographs that are clear and uncluttered.	Disagree=0, Agree=1, No visual aids=N/A	
19	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) × 100

## ACTIONABILITY

Item #	Item	Response Options	Rating
20	The material clearly identifies at least one action the user can take.	Disagree=0, Agree=1	
21	The material addresses the user directly when describing actions.	Disagree=0, Agree=1	
22	The material breaks down any action into manageable, explicit steps.	Disagree=0, Agree=1	
23	The material provides a tangible tool (e.g., menu planners, checklists) whenever it could help the user take action.	Disagree=0, Agree=1	
24	The material provides simple instructions or examples of how to perform calculations.	Disagree=0, Agree=1, No calculations=N/A	
25	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	
26	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) × 100

# How To Use the PEMAT To Assess a Material

- **Step 1: Read through the PEMAT and User's Guide.**
- **Step 2: Read or view patient education material.** Read through or view the patient education material that you are rating in its entirety.
- **Step 3: Selected PEMAT-P**
- **Step 4: Go through each PEMAT item one by one.** All items will have the response options “Disagree” or “Agree.” Some—but not all—items will also have a “Not Applicable” answer option. Go one by one through each of the items, 24 for printable materials and 17 for audiovisual materials, and indicate if you agree or disagree that the material meets a specific criterion. Or, when appropriate, select the “Not Applicable” option.
- You may refer to the material at any time while you complete the form. You don't have to rely on your memory. Consider each item from a patient perspective. For example, for “Item 1: The material makes its purpose completely evident,” ask yourself, “If I were a patient unfamiliar with the subject, would I readily know what the purpose of the material was?”
- **Step 5: Rate the material on each item as you go.** After you determine the rating you would give the material on a specific item, enter the number (or N/A) that corresponds with your answer in the “Rating” column of the PEMAT. Do not score an item as “Not Applicable” unless there is a “Not Applicable” option. Score the material on each item as follows:
  - If Disagree Enter 0
  - If Agree Enter 1
  - If Not Applicable Enter NA

#	UNDERSTANDABILITY Items
<b>Topic: Content</b>	
1	The material makes its purpose completely evident.
2*	The material does not include information or content that distracts from its purpose.
<b>Topic: Word Choice &amp; Style</b>	
3	The material uses common, everyday language.
4	Medical terms are used only to familiarize audience with the terms. When used, medical terms are defined.
5	The material uses the active voice.
<b>Topic: Use of Numbers</b>	
6	Numbers appearing in the material are clear and easy to understand.
7	The material does not expect the user to perform calculations.
<b>Topic: Organization</b>	
8	The material breaks or “chunks” information into short sections.
9	The material’s sections have informative headers.
10	The material presents information in a logical sequence.
11	The material provides a summary.
<b>Topic: Layout &amp; Design</b>	
12	The material uses visual cues (e.g., arrows, boxes, bullets, bold, larger font, highlighting) to draw attention to key points.
<b>Topic: Use of Visual Aids</b>	
13	The material uses visual aids whenever they could make content more easily understood (e.g., illustration of healthy portion size).
14	The material’s visual aids reinforce rather than distract from the content.
15	The material’s visual aids have clear titles or captions.
16	The material uses illustrations and photographs that are clear and uncluttered.
17	The material uses simple tables with short and clear row and column headings.

#	ACTIONABILITY Items
18	The material clearly identifies at least one action the user can take.
19	The material addresses the user directly when describing actions.
20	The material breaks down any action into manageable, explicit steps.
21	The material provides a tangible tool (e.g., menu planners, checklists) whenever it could help the user take action.
22	The material provides simple instructions or examples of how to perform calculations.
23	The material explains how to use the charts, graphs, tables, or diagrams to take actions.
24	The material uses visual aids whenever they could make it easier to act on the instructions.

Agree - Disagree - N/A

Let's give it a try



Thank you for your time

