



CHA  2018

SEPSIS

AWARENESS MONTH TOOLKIT

September 2018

Sepsis is the body's
**overwhelming
response**

to infection, which can lead
to tissue damage, organ
failure, amputations and death.

Sepsis is the
leading cause

of death in U.S. hospitals
and the leading cause
of readmissions to
the hospital.

Sepsis is the
number one cost

of hospitalization in the
U.S., consuming more
than \$27 billion each year.

Sepsis is an
equal-opportunity killer
impacting people of
**all ages and
levels of health.**

270,000 people die from sepsis every year
in the U.S. – **one every 2 minutes.**

This program material was developed under Contract Number HHSM-500-2016-00067C, entitled, "Hospital Improvement Innovation Network Contract," sponsored by the Centers for Medicare & Medicaid Services, Department of Health and Human Services.



Table of Contents

CHA is committed to providing member hospitals and health systems with education and communication resources for observing and promoting *Sepsis Awareness Month* in September.

This toolkit provides a variety of education and communication pieces to help your hospital put a spotlight on sepsis and sepsis awareness. The following tools are included:

WORLD SEPSIS DAY DECLARATION

COMMUNICATIONS MATERIALS

EDUCATION MATERIALS

INFOGRAPHICS

PROMOTIONAL MATERIALS

ODDS AND ENDS

KEY WEBSITES

Have photos to share of your Sepsis Awareness Month Activities? Questions regarding sepsis education? Contact CHA infection prevention manager, Toni Foos, at Toni.Foos@cha.com.



World Sepsis Day Declaration

September | World
13 | Sepsis
2018 | Day



<http://world-sepsis-day.org>

Sign the World Sepsis Declaration Here

Communications Materials

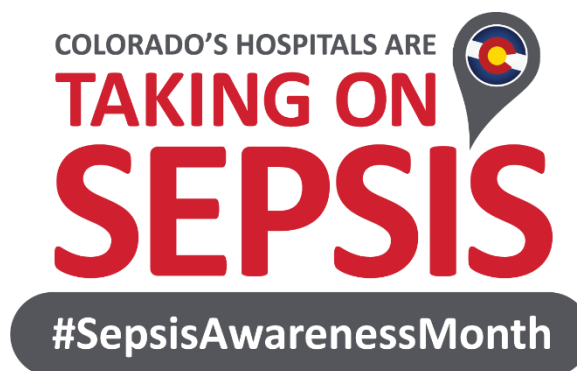
These materials are for your organization to customize and share to highlight all the work your hospital is doing to combat sepsis and to promote Sepsis Awareness Month. This section includes:

- A package of customizable social media graphics
- General and hospital-specific sample social media posts
- A sample press release
- A sample internal newsletter article
- A media fact sheet
- Media outreach ideas

Customizable graphics

Consider adding your organization's logo to these graphics and using them in your social media posts to showcase what your organization is doing to combat sepsis in your community. Some ideas of hospital initiatives are:

- Pre-hospital education (paramedics, first responders, etc.)
- Pre-programmed EHR alerts for potentially septic patients
- Staff education, including sepsis protocols and evidence-based guidelines
- Other steps for early detection and treatment



[Access graphics package](#)

Communications Materials cont'd.

Sample Social Media Posts

Consider posting these or similar messages to your organization's social media pages during September, including either the image above or one of the options in the education materials section, with your post. You can also check out @SepsisAlliance on Twitter to retweet the organization's posts.

Hospital-specific

- [ORGANIZATION] has established a comprehensive protocol for identifying and treating patients with #sepsis. Learn more about what we're doing to #FightSepsis at [LINK TO PRESS RELEASE].
- [ORGANIZATION] has automated alerts built into our charting system to automatically warn providers if a patient may be septic. Learn what else we're doing to #FightSepsis at [LINK TO PRESS RELEASE]. #SepsisAwarenessMonth
- Our staff attend [LIST INTERNAL TRAINING] to stay informed about new protocols for treating #sepsis better. Learn more about how we #FightSepsis here [LINK TO PRESS RELEASE]. #SepsisAwarenessMonth
- [ORGANIZATION] has established [EXTERNAL TRAINING PROGRAM] that trained [NUMBER] people in our community about the warning sign of #sepsis. Learn more about what you can do to #BeAware at www.sepsis.org.
- Sepsis is the leading cause of death in U.S. hospitals. Here's what we are doing to fight this deadly condition. #SepsisAwarenessMonth [LINK TO PRESS RELEASE]

General Sepsis

- Did you know that #sepsis kills more Americans each year than prostate cancer, breast cancer and AIDS combined? Learn the facts. #SepsisAwarenessMonth [LINK TO SEPSIS SYMPTOMS GRAPHIC].
- More than 1.7 million people in the U.S. are diagnosed with sepsis each year. That's one every 20 seconds. Learn about what [ORGANIZATION] is doing to fight #sepsis. [LINK TO PRESS RELEASE]
- Early identification of sepsis is key to effective treatment. Learn the symptoms of sepsis and #BeAware. #SepsisAwarenessMonth [LINK TO SEPSIS SYMPTOMS GRAPHIC]
- Do you know who has a higher risk for developing #sepsis? Take the time to be informed. #SepsisAwarenessMonth [LINK TO SEPSIS FACT SHEET]

Communications Materials cont'd.

Sample Press Release

FOR IMMEDIATE RELEASE

Media Contact
Organization Name
Phone Number
Email Address

[HOSPITAL NAME] Recognizes Sepsis Awareness Month

[LOCATION] – [DATE] –

[HOSPITAL NAME] is acknowledging September as Sepsis Awareness Month. Every two minutes, someone dies from sepsis in the United States – more than prostate cancer, breast cancer and AIDS combined. Nearly 23,000 Coloradans were diagnosed with sepsis in 2017, and it continues to be a crucial health condition that [HOSPITAL NAME] is working to diagnose quickly and treat.

Sepsis is the body's response to infection and can lead to tissue damage, organ failure and death. Most often, sepsis begins outside the hospital, but it is the job of hospitals and their providers to quickly diagnose this dangerous condition and treat the patient accordingly.

[HOSPITAL] is working diligently to address sepsis in our community, by [HOW IS HOSPITAL EDUCATING STAFF AND COMMUNITY ABOUT SEPSIS].

[FOR HOSPITALS PARTICIPATING IN THE HIIN] – [HOSPITAL NAME] is also participating in a national effort, called the Hospital Improvement Innovation Network (HIIN), which is seeking to reduce all-cause inpatient harm and readmissions. This effort is being led by Colorado Hospital Association in Colorado and includes a focus on sepsis.

For sepsis awareness month, [HOSPITAL NAME] encourages the community to remember the signs of sepsis:

- S** Shivering, fever or very cold
- E** Extreme pain or general discomfort
- P** Pale or discolored skin
- S** Sleeping, difficult to rouse, confused
- I** "I feel like I might die"
- S** Short of breath

For more information, visit www.sepsis.org.

[HOSPITAL BOILERPLATE]

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Communications Materials cont'd.

Sample Internal Newsletter

[ORGANIZATION NAME] is recognizing this September as Sepsis Awareness Month. You may begin to notice educational materials laid out as part of our initiative to educate patients and their family members about the dangers and warning signs of sepsis. Please join us in this effort by furthering the conversations about sepsis.

You all know how serious a sepsis diagnosis is, but what you may not know is how common it is. Nearly 23,000 Coloradans, and 1.7 million people nationally, were diagnosed with sepsis in 2017. It remains the leading cause of death in hospitals in the United States. This is a sobering reality for us and for our patients, and our goal is to significantly reduce these numbers in 2018.

[HOSPITAL] is working diligently to address sepsis in our community, by [HOW IS HOSPITAL EDUCATING STAFF AND COMMUNITY ABOUT SEPSIS].

Thank you all for your excellent care and for joining in the fight to reduce sepsis in our hospital and in our community.

Media Fact Sheet

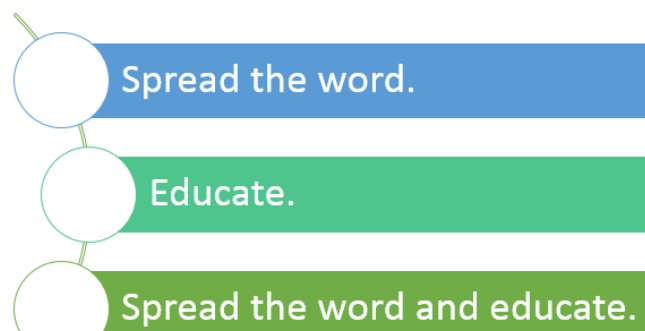
- [Sepsis Alliance Media Fact Sheet](#) – Everything you need to know about sepsis in two pages, from the definition and symptoms to stats on sepsis and children and how it compares to other well-known conditions, as well as, global and economic impacts.

Media Outreach Ideas

- Send the customizable press release to your local media outlets (newspaper, TV, radio).
- Find out if there is a patient from your hospital who was treated for sepsis that can share his/her story. Obtain necessary consent from the patient and offer local media the opportunity to interview the patient.
- Submit a letter to the editor from your hospital CEO talking about Sepsis Awareness Month.
- Invite a local reporter to meet with your hospital's sepsis champion to talk about sepsis and what the hospital is doing to address this issue.
- Provide local reporters with a [CDC Sepsis Fact Sheet](#)
- Utilize video & radio PSAs from [Sepsis Alliance](#)

Education Materials

- **Sepsis 101** – brief PowerPoint presentation covering sepsis basics including: what is sepsis, signs and symptoms, basic treatment bundles, post-sepsis symptoms, etc. This presentation may be modified to suit your education needs for both staff and community members. [Download PowerPoint](#)
- **Nursing Educational Video** – This Sepsis Alliance video, *Nurses Suspect Sepsis*, is free and available to the public. Hospitals and health care systems are encouraged to share this tool at their next continuing education session or staff meeting to refresh staff on early identification of sepsis. [Access Vimeo video](#)
- **Faces of Sepsis Video** – Share this impactful five-minute video with staff. Be creative and thorough. How many orientations, trainings, department meetings, hospital meetings, board meetings, etc. can you share this video at? Look for opportunities to share beyond your immediate area. [Access Vimeo video](#)
- **Life After Sepsis Video** – Post-sepsis syndrome is a condition that affects up to 50 percent of sepsis survivors. [Access YouTube video](#)
- **Sepsis in Pregnancy Article** –Sepsis accounts for up to 28 percent of all maternal deaths. To date, there are no validated tools for identification of sepsis in pregnant women and tools used in the general population tend to overestimate mortality. J Perinat Neonat Nurs, 2016. [Read article](#)
- **Videos – Miscellaneous**
 - World Sepsis Day – What is Sepsis? (three-minute videos in English and Spanish)
 - [Access YouTube video – English](#)
 - [Access YouTube video - Spanish](#)
 - JAMA – Consensus Definitions for Sepsis and Septic Shock [Access YouTube video](#)
 - Healthgrades – What is Sepsis? [Access YouTube video](#)
 - Kern Medical Center – Sepsy Back (musical parody) [Access YouTube video](#)
 - Apex Innovations – Sepsis 2.0 A Systemic Response (subscription course) [Learn more](#)



Education Materials cont'd.

CDC Sepsis Fact Sheet – Print this informational sheet and provide as handouts to patients, visitors and staff. Place in waiting rooms and at the front desk. Provide copies for your clinics, nursing homes and other ancillary locations. [Access fact sheet and other information guides](#)

SEPSIS FACT SHEET
A POTENTIALLY DEADLY OUTCOME FROM AN INFECTION

What is sepsis?
Sepsis is 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?
Any type of infection that is anywhere in your body can cause sepsis, including infections of the skin, lungs (such as pneumonia), urinary tract, abdomen (such as appendicitis), or other part of the body. An infection occurs when germs enter a person's body and multiply, causing illness and organ and tissue damage.

Who gets sepsis?
Anyone can get sepsis as a bad outcome from an infection, but the risk is higher for:

- people with weakened immune systems
- babies and very young children
- elderly people
- people with chronic illnesses, such as diabetes, AIDS, cancer, and kidney disease
- people suffering from a severe burn or wound

 Ask your doctor about your risk for getting sepsis.

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

SEPSIS
S Shivering, fever, or very cold
E Extreme pain or general discomfort ("worst ever")
P Pale or discolored skin
S Sleepy, difficult to wake up, confused

Why should I be concerned about sepsis?
Sepsis can be deadly. It kills more than 258,000 Americans each year and leaves thousands of survivors with life-changing after effects. According to CDC, there are over 1 million cases of sepsis each year, and it is the ninth leading cause of disease-related deaths.

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 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
- 2 Prevent infections that can lead to sepsis by:
 - Cleaning scrapes and wound
 - Practicing good hygiene (e.g., hand washing, bathing regularly)
- 3 If you have an infection, look for signs like fever, chills, rapid breathing and heart rate, rash, confusion, and disorientation.

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 cdc.gov/cancer/preventinfections
- Rory Staunton Foundation—The Rory Staunton Foundation supports education and outreach efforts aimed at rapid diagnosis and treatment of sepsis, particularly in children. rorystaunton.com
- 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 to view the complete series of titles. sepsis.org

Logos: CDC, Rory Staunton Foundation, Sepsis Alliance

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

Ideas:

- Display these flyers in all waiting areas, on reception desks, etc.
- Send to affiliated PCP offices, clinics, nursing homes, etc.
- Provide to media contacts.

Education Materials cont'd.

Get Ahead of Sepsis? CDC Fact Sheet

Access factsheet

GET AHEAD OF SEPSIS
KNOW THE RISKS. SPOT THE SIGNS. ACT FAST.

FOR PATIENTS AND FAMILIES

STAY HEALTHY. PROTECT YOURSELF FROM SEPSIS.

It's time to talk about sepsis. Ask your doctor or nurse, **"How can I prevent infections?"**

Take charge of your health. Chronic conditions, such as diabetes, put you at risk for infections that can lead to a life-threatening condition called sepsis.

WHAT IS SEPSIS?

Sepsis is the body's extreme response to an infection. It is life-threatening, and without timely treatment, sepsis can rapidly lead to tissue damage, organ failure, and death.

Sepsis happens when an infection you already have—in your skin, lungs, urinary tract or somewhere else—triggers a chain reaction throughout your body.

AM I AT RISK?

Anyone can get an infection, and almost any infection can lead to sepsis. People with chronic conditions such as diabetes, lung disease, cancer, and kidney disease, are at higher risk of developing infections that can lead to sepsis. Sepsis also more commonly occurs in:

- Adults 65 or older
- People with weakened immune systems
- Children younger than one

The most frequently identified germs that cause infections that can develop into sepsis include *Staphylococcus aureus* (staph), *Escherichia coli* (E. coli), and some types of *Streptococcus*.

HOW CAN I GET AHEAD OF SEPSIS?

1. Talk to your doctor or nurse about steps you can take to prevent infections. Some steps include taking good care of chronic conditions and getting recommended vaccines.
2. Practice good hygiene, such as handwashing, and keeping cuts clean and covered until healed.
3. Know the symptoms of sepsis.
4. **ACT FAST.** Get medical care **IMMEDIATELY** if you suspect sepsis or have an infection that's not getting better or is getting worse.

WHAT ARE THE SYMPTOMS?

Symptoms of sepsis can include any one or a combination of the following:



CONFUSION OR DISORIENTATION



SHORTNESS OF BREATH



HIGH HEART RATE



FEVER, OR SHIVERING, OR FEELING VERY COLD



EXTREME PAIN OR DISCOMFORT



CLAMMY OR SWEATY SKIN

Sepsis is a medical emergency. Time matters. If you or your loved one suspects sepsis or has an infection that's not getting better or is getting worse, ask your doctor or nurse, **"Could this infection be leading to sepsis?"**

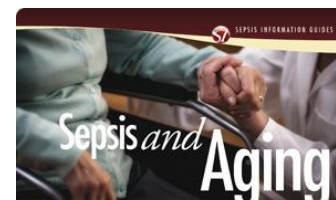
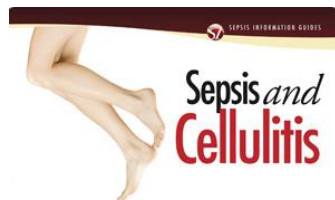
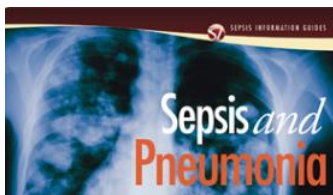
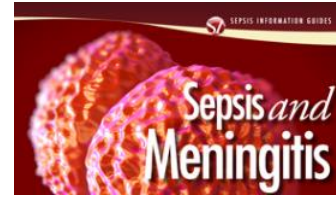
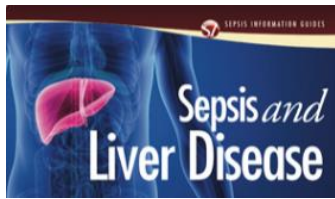
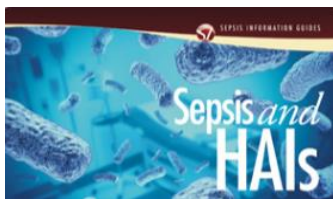
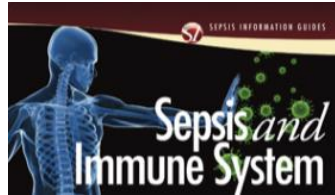
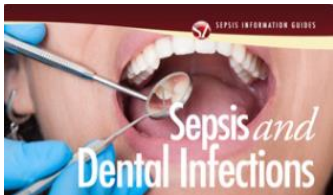
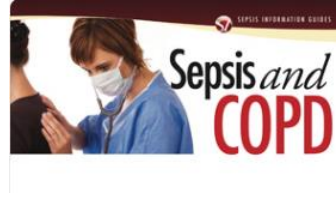
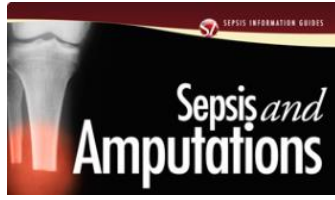
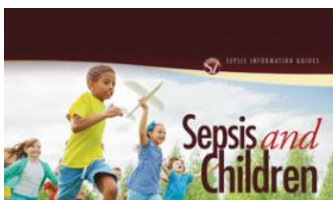
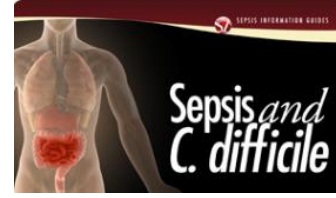
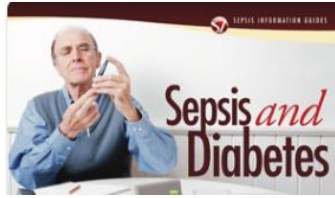
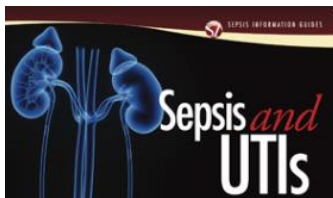
To learn more about sepsis and how to prevent infections, visit www.cdc.gov/sepsis.



PubNo. 300409

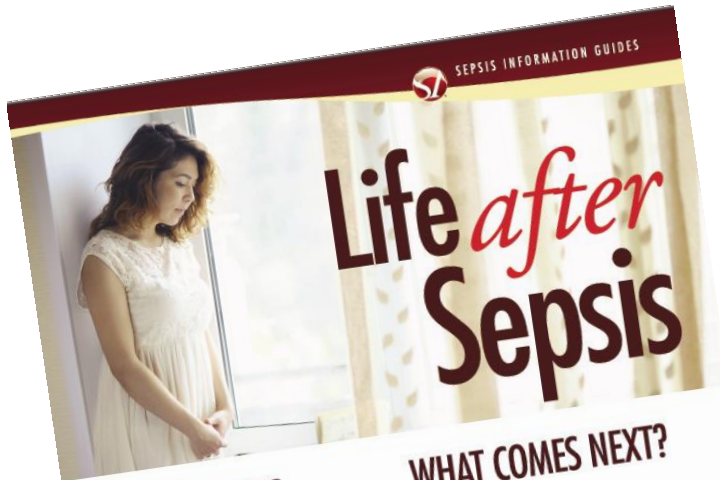
Education Materials cont'd.

Sepsis Information Guides – These free, printable education guides from *Sepsis Alliance* are perfect for patient education, as well as staff education. Print out and provide to your ancillary clinics and practices too! View all options [here](#) or click on an individual guide below.



Education Materials

Life After Sepsis – This two-page handout from the *Society of Critical Care Medicine* and *Sepsis Alliance* is perfect for educating patients on what to expect once they are discharged. Their sepsis journey does not end at the hospital door. [Access here](#)



ABOUT SEPSIS

What is sepsis?

Sepsis is the body's overwhelming and life-threatening response to an infection, which can lead to tissue damage, organ failure, and death.

What causes sepsis?

Any type of infection that is anywhere in your body can cause sepsis, including infections of the skin, lungs (such as pneumonia), urinary tract, abdomen (such as appendicitis), or other part of the body. An infection occurs when germs enter a person's body and multiply, causing illness, organ and tissue damage.

Are there different types of sepsis?

Many people can have 'mild' sepsis, which can make them feel sick, but they then get better without needing treatment in a hospital. However, other patients develop severe sepsis, which means they become seriously ill and need hospital treatment immediately.

SEPSIS INFORMATION GUIDE – LIFE AFTER SEPSIS

WHAT COMES NEXT?

What are the first steps in recovery?

After you have had sepsis, rehabilitation usually starts in the hospital by slowly helping you to move around and look after yourself: bathing, sitting up, standing, walking, taking yourself to the restroom, etc. The purpose of rehabilitation is to restore you back to your previous level of health or as close to it as possible. Begin your rehabilitation by building up your activities slowly, and resting when you are tired.

How will I feel when I get home?

You have been seriously ill, and your body and mind need time to get better. You may experience the following physical symptoms upon returning home:

- General to extreme weakness and fatigue
- Breathlessness
- General body pains or aches
- Difficulty moving around or sleeping
- Weight loss, lack of appetite, food not tasting normal
- Dry and itchy skin that may peel
- Brittle nails
- Hair loss

What should I do when I get home?

- Eat a balanced diet
- Exercise if you feel up to it
- Make a list of questions to ask your healthcare provider when you go for a check up

Are there any long-term effects of sepsis?

Many people who survive sepsis recover completely and their lives return to normal. However, older people, people who have suffered more severe sepsis and those treated in an intensive care unit are at greatest risk of long-term problems, including suffering from post-sepsis syndrome.

What is post-sepsis syndrome (PSS)?

Post-sepsis syndrome is the term used to describe the group of long-term problems that some people with severe sepsis experience. These problems may not become apparent for several weeks (post-sepsis), and may include such long-term consequences as:

- Insomnia, difficulty getting to or staying asleep
- Nightmares, vivid hallucinations, panic attacks
- Disabling muscle and joint pains
- Decreased mental (cognitive) functioning
- Loss of self-esteem and self-belief
- Organ dysfunction (kidney failure, respiratory problems, etc.)
- Amputations

the following feelings once home:

- Isolation
- Loss of friends and family
- Confusion (what is real and what isn't)
- Anxiety

• Difficulty with everyday tasks

How can I recover at home?

• Schedule self care each week, such as taking a bath, stairs

• Write down milestones in a journal

• Write down things that may have in your memory about



POST-SEPSIS: THE NEW NORMAL

What's normal and when should I be concerned?

Generally, the problems described in this fact sheet do improve with time. They are a normal response to what you have been through. Some hospitals have follow-up clinics or staff to help patients and families once they have been discharged. Find out if yours does or if there are local resources available to help you while you get better. However, if you feel that you are not getting better, or finding it difficult to cope, or continue to be exhausted call your healthcare provider.

Where can I get more information?

Sepsis Alliance (www.sepsis.org) was created to raise sepsis awareness among both the general public and healthcare professionals. Sepsis Alliance offers information on a variety of sepsis-related topics. To view the full series of Sepsis Information Guides, visit sepsis.org/library

To learn more about sepsis, visit us online at Sepsis.org



SEPSIS ALLIANCE
Suspect Sepsis. Save Lives.™

Society of
Critical Care Medicine

The Intensive Care Professionals

Sepsis Information Guides are supported in part by an educational grant from Merck & Co., Inc.

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Education Materials cont'd.



Raise Sepsis Awareness in Your Community with the Sepsis 911 Community Education Presentation

The *Sepsis Alliance* Sepsis 911 Community Education Presentation is a leader-guided presentation that allows anyone (members of the public, health providers, educators) to share information about sepsis with their community. Grassroots initiatives like this help more people learn about this life-threatening condition and we know that being knowledgeable about sepsis can help save lives.

In the presentation kit, you'll find everything you need for a successful Sepsis 911 Community Education Presentation. You will receive:

Getting Started with the Sepsis 911 Community Education Presentation

1. Sepsis 911 Community Education Presentation Checklist
2. Sepsis 911 Community Education Customizable Event Poster
3. Sepsis 911 Community Education Press Release Template
4. Sepsis 911 Community Education Presentation
5. Sepsis 911 Community Education Leader Script
6. Sepsis 911 Video
7. Sepsis 911 Community Education Attendee Pre- and Post-Quiz
8. Sepsis 911 Community Education Quiz Leader Answer Sheet
9. Sepsis 911 Community Education Attendee Survey
10. Sepsis 911 Community Education Leader Feedback

Video



SEPSIS 911
COMMUNITY EDUCATION PRESENTATION

Sepsis 911
Community Education Presentation Checklist

Before Presentation

- Choose a date and reserve a location.
- Confirm if the location needs insurance for this kind of event and, if so, is that kind of insurance available.
- Reserve equipment, if needed (LCD projector and screen, speakers for video).
- Review the presentation and script to make sure you are confident with the content.
- Download and save video to your computer to show during presentation.
- Print out pre- and post-tests as well as feedback forms.
- Determine how you will invite people or publicize presentation. Please use the event poster to promote the event at the venue and in the community. Also reach out to your network, post your event to local online event sites, create an event page and share on social media, and any other creative ideas to help spread the word.
- Decide if coffee/snacks will be served and if so, make arrangements.

Day of Presentation

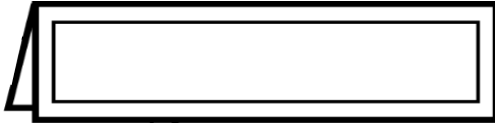
- Display posters and any directional signs so attendees can easily find the room/location of your presentation.
- Set up computer and projector. Get there early to test the equipment and video.


For more information on sepsis, visit sepsis.org. SEPSIS ALLIANCE
Improve Health. Save Lives.

Page 1 of 2

Education Materials cont'd.

Table Tent Card



S	E	P	S	I	S	Sepsis is a medical emergency. Seek treatment right away.	 CHA Colorado Hospital Association
S hivering, fever, or very cold	E xtrême pain or general discomfort ("worst ever")	P ale or discolored skin	S leepy, difficult to wake up, confused	I "I feel like I might die"	S hort of breath		

Print these tent cards and use on your cafeteria tables (or anywhere else).
standard Avery format 5309

[Access tent card template here](#)

If you would like a customizable document to add your logo, contact Toni.Foos@cha.org

Education Materials cont'd.

Intensive Care Med (2017) 42:304–377
DOI 10.1007/s00134-017-4683-6

CONFERENCE REPORTS AND EXPERT PANEL



Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock: 2016

Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock: 2016

- Guidelines [Access here](#)
- Hour-1 Bundle [Access here](#)
- Hour-1 [infographic](#)
- Print your own Hour-1 [pocket cards](#)

Andrew Rhodes¹, Laura E. Evans², Waleed Alhazzani³, Mitchell M. Levy⁴, Massimo Antonelli⁵, Ricard Ferrer⁶, Anand Kumar⁷, Jonathan E. Sevransky⁸, Charles L. Sprung⁹, Mark E. Nunnally¹⁰, Bram Rochwerf¹¹, Gordon D. Rubenfeld¹², Derek C. Angus¹¹, Djillali Annane¹², Richard J. Beale¹³, Geoffrey J. Bellingham¹⁴, Gordon R. Bernard¹⁵, Jean-Daniel Chiche¹⁶, Craig Coopersmith⁸, Daniel P. De Backer¹⁷, Craig J. French¹⁸, Seitaro Fujishima¹⁹, Herwig Gerlach²⁰, Jorge Luis Hidalgo²¹, Steven M. Hollenberg²², Alan E. Jones²³, Dilip R. Karnad²⁴, Ruth M. Kleinpell²⁵, Younsuk Koh²⁶, Thiago Costa Lisboa²⁷, Flavia R. Machado²⁸, John J. Marini²⁹, John C. Marshall³⁰, John E. Mazuski³¹, Lauralyn A. McIntyre³², Anthony S. McLean³³, Sangeeta Mehta³⁴, Rui P. Moreno³⁵, John Myburgh³⁶, Paolo Navales³⁷, Osamu Nishida³⁸, Tiffany M. Osborn³¹, Anders Perner³⁹, Colleen M. Plunkett²⁵, Marco Ranieri⁴⁰, Christa A. Schorr²², Maureen A. Seckel⁴¹, Christopher W. Seymour⁴², Lisa Shieh⁴³, Khalid A. Shukri⁴⁴, Steven Q. Simpson⁴⁵, Mervyn Singer⁴⁶, B. Taylor Thompson⁴⁷, Sean R. Townsend⁴⁸, Thomas Van der Poll⁴⁹, Jean-Louis Vincent⁵⁰, W. Joost Wiersinga⁴⁹, Janice L. Zimmerman⁵¹ and R. Phillip Dellinger²²

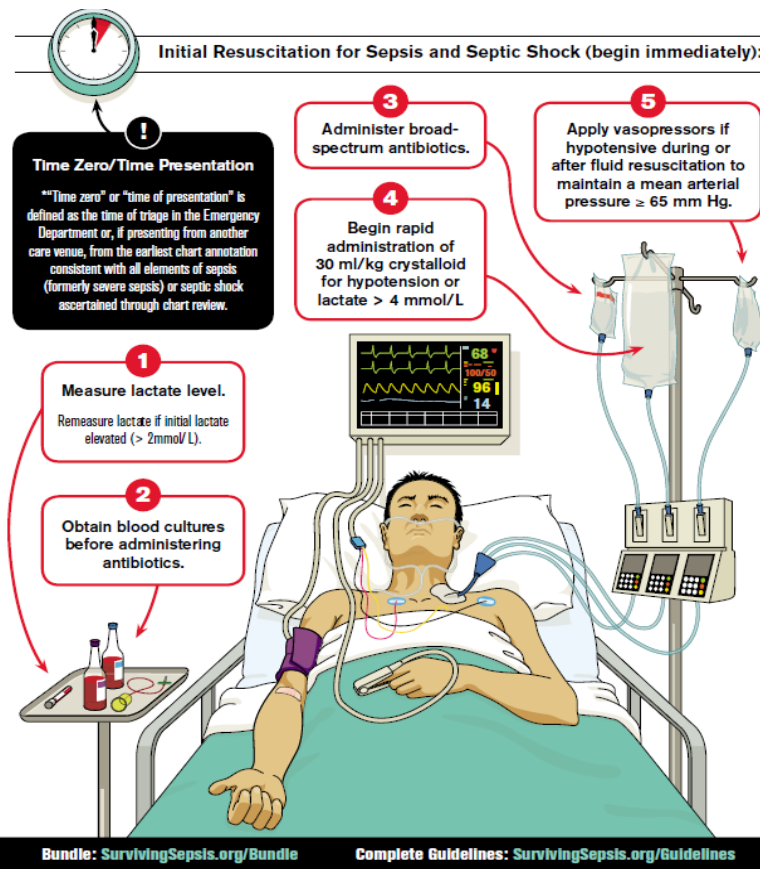
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Abstract

Objective: To provide an update to "Surviving Sepsis Campaign Guidelines for Management of Sepsis and Septic Shock: 2012".

Design: A consensus committee of 55 international experts representing 25 international organizations was convened. Nominal groups were assembled at key international meetings (for those committee members attending the conference). A formal conflict-of-interest (COI) policy was developed at the onset of the process and enforced throughout. A stand-alone meeting was held for all panel members in December 2015. Teleconferences and electronic-based discussion among subgroups and among the entire committee served as an integral part of the development.

Methods: The panel consisted of five sections: hemodynamics, infection, adjunctive therapies, metabolic, and ventilation. Population, intervention, comparison, and outcomes (PICO) questions were reviewed and updated as needed, and evidence profiles were generated. Each subgroup generated a list of questions, searched for best available evidence, and then followed the principles of the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) system to assess the quality of evidence from high to very low, and to formulate recommendations as strong or weak, or best practice statement when applicable.



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Surviving Sepsis Campaign **BUNDLE**

HOURLY ONE BUNDLE: INITIAL RESUSCITATION FOR SEPSIS AND SEPTIC SHOCK (BEGIN IMMEDIATELY):

- 1) Measure lactate level.*
- 2) Obtain blood cultures before administering antibiotics.
- 3) Administer broad-spectrum antibiotics.
- 4) Begin rapid administration of 30ml/kg crystalloid for hypotension or lactate ≥4 mmol/L.
- 5) Apply vasopressors if hypotensive during or after fluid resuscitation to maintain a mean arterial pressure ≥ 65 mm Hg.

*Remeasure lactate if initial lactate elevated (> 2mmol/L).

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www.survivingsepsis.org

Education Materials cont'd.



2ND WORLD SEPSIS CONGRESS

A Free Online Congress by the Global Sepsis Alliance

To be held completely online on
September 5th and 6th, 2018

Information & Registration:
worldsepsiscongress.org

#wsc18


Program Chairs: Flavia Machado,
Simon Finfer, Konrad Reinhart

Infographics

<http://www.sepsis.org/resources/infographics/>

Use these posters and infographics to spread the word . . . Be creative about where you post them. Educate as many people as you can! [Access here](#)

**ACTING QUICKLY CAN
SAVE LIVES FROM
SEPSIS**

 **SEPSIS IS YOUR BODY'S LIFE-THREATENING RESPONSE TO AN INFECTION AND IS A MEDICAL EMERGENCY.**

IF YOU DEVELOP A COMBINATION OF THESE SYMPTOMS*:

- S** Shivering, fever, or very cold.
- E** Extreme pain or general discomfort ("worst ever").
- P** Pale or discolored skin.
- S** Sleepy, difficult to rouse, confused.
- I** "I feel like I might die."
- S** Short of breath.

CALL 911 **OR** **GO TO A HOSPITAL AND SAY "I'M CONCERNED ABOUT SEPSIS"**





*Particularly if you recently had an open wound (cut, scrape, bug bite, etc.), surgery, some type of invasive procedure, or infection.

Get involved and join the fight at sepsis.org **SEPSIS ALLIANCE**
Suspect Sepsis. Save Lives.

Made possible in part by an unrestricted educational grant from Merck and Co., Inc. Special thanks to the UK Sepsis Trust

Infographics cont'd.

SEPSIS: KNOW THE SIGNS, SAVE A LIFE

-  **Temperature** Higher or lower than normal
-  **Infection** May have signs and symptoms of an infection
-  **Mental decline** Confused, sleepy, difficult to rouse
-  **Extremely ill** "I feel like I might die," severe pain or discomfort

If you suspect sepsis, act quickly. For Every hour treatment is delayed, the risk of death increases by as much as 8%



DID YOU KNOW

Sepsis is the body's life-threatening response to an infection

- **270,000 people die** from sepsis every year in the U.S. – one every 2 minutes
- More **children die** of sepsis than pediatric cancers
- **Every day**, there are an **average of 38 amputations** in the U.S. as the result of sepsis
- **Mortality** from sepsis **increases by as much as 8% for every hour** that treatment is delayed
- As many as **80% of sepsis deaths could be prevented** with rapid diagnosis and treatment



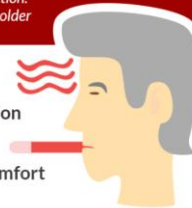
TO LEARN MORE VISIT SEPSIS.ORG



KNOW THE SIGNS, SAVE A LIFE

Sepsis is the body's life-threatening response to an infection. More than 80% of sepsis patients are 50 years of age or older

- Temperature** Higher or lower than normal
- Infection** May have signs and symptoms of an infection
- Mental decline** Confused, sleepy, difficult to rouse
- Extremely ill** "I feel like I might die," severe pain or discomfort



If you suspect sepsis, act quickly. For Every hour treatment is delayed, the risk of death increases by as much as 8%



KNOW THE SIGNS, SAVE A LIFE

Sepsis is the body's life-threatening response to an infection. More children die of sepsis than pediatric cancers

- | CHILDREN | UNDER 5 |
|--|--------------------------------|
| Feels abnormally cold to touch | – Not eating |
| Looks mottled, bluish, or has very pale skin | – Is vomiting repeatedly |
| Has a rash that does not fade when pressed | – Has not urinated in 12 hours |
| Is breathing very fast | |
| Has a convulsion | |
| Is very lethargic or difficult to wake up | |



If you suspect sepsis, act quickly. For Every hour treatment is delayed, the risk of death increases by as much as 8%



2018 SEPTEMBER
SEPSIS SAY SEPSIS
SAVE LIVES
SEPSIS.AWARENESSMONTH.ORG

Tips for Talking with your Healthcare Team



TELL YOUR STORY AS ACCURATELY AS POSSIBLE.



TAKE NOTES

BRING A FRIEND



ASK QUESTIONS

SAY, "I'M CONCERNED ABOUT SEPSIS," AND EXPLAIN WHY.

- ASK FOR CLARIFICATION IF YOU DON'T UNDERSTAND SOMETHING.
- IF YOU'RE SENT FOR TESTS, ASK WHAT THEY'RE FOR AND WHEN RESULTS WILL BE AVAILABLE. FOLLOW UP IF YOU DON'T HEAR BACK.
- ASK WHAT YOU SHOULD EXPECT FOLLOWING YOUR DIAGNOSIS
- ASK WHAT MEDICATIONS ARE FOR, WHAT THEY DO, AND WHEN YOU SHOULD SEE RESULTS
- IF YOU'RE NOT FEELING BETTER, GET A 2ND OPINION.

Infographics cont'd.

Access here

SEPSIS

IS A MEDICAL EMERGENCY

Any Kind of Infection
Can Lead to Sepsis


Some common infections that can lead to sepsis include:

- Urinary Tract Infections (UTIs)
- Strep Throat
- Influenza
- MRSA

- Sepsis is your body's life-threatening response to an infection.
- Sepsis is usually easy to treat if it is detected early.
- Sepsis kills 258,000 people each year in the U.S.

If you've had an infection or suspect an infection, and develop a combination of these symptoms, seek medical attention right away: fever or chills, extreme pain or discomfort, pale or discolored skin, sleepiness or confusion, shortness of breath, or feeling the worst you've ever felt.

Get involved and join the fight at sepsis.org

 **SEPSIS ALLIANCE**
Suspect Sepsis. Save Lives.

Made possible in part by an unrestricted educational grant from Merck and Co., Inc. Special thanks to the UK Sepsis Trust

Infographics cont'd.

Access here



SEPSIS

**TAKES THE LIVES OF OVER
18 CHILDREN EACH DAY
MORE THAN CHILDHOOD CANCERS**

SEPSIS IS A COMMON AND SERIOUS COMPLICATION OF AN INFECTION

If your child has any of these symptoms you should take immediate action:

- Skin abnormally cold to touch
- Bluish or very pale skin
- Rash that does not fade when pressed on
- Very fast or rapid breathing
- Seizures
- Lethargy or difficulty waking up

Acting quickly could save your child's life.

If your child has any of these symptoms* don't be afraid to go to the hospital or call 911 and say "I AM CONCERNED ABOUT SEPSIS."

*Particularly if they recently had an open wound (cut, scrape, bug bite, etc.), surgery, some type of invasive procedure, or infection.

Get involved and join the fight at sepsis.org

 **erin's campaign
for kids**

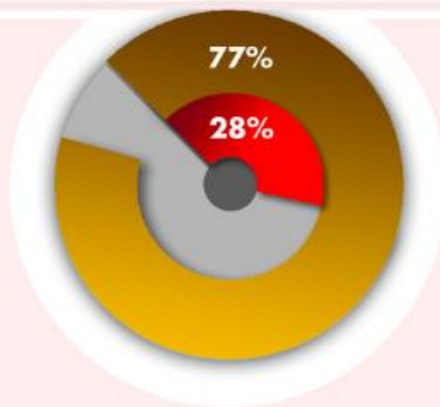
 **SEPSIS ALLIANCE**
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Infographics cont'd

Access here

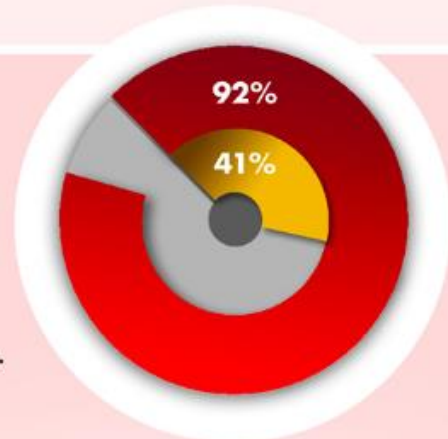
Sepsis and Children



- 77% of parents know the word sepsis.
- Only 28% can identify the common signs.

Sepsis kills more children than childhood cancers every day in the U.S.

- 41% of parents think children can only get sepsis if they are already in the hospital.
- The reality is as many as 92% of sepsis cases originate in the community from everyday occurrences like a scrape on the playground that becomes infected or the flu.



Largest Killer of Children Around the Globe

More than **3 million** children around the world die from sepsis every year.



Infographics cont'd.

<http://www.sepsis.org/resources/infographics/>

SYMPTOMS OF SEPSIS

S Shivering, fever, or very cold
E Extreme pain or general discomfort (“worst ever”)
P Pale or discolored skin
S Sleepy, difficult to rouse, confused
I “I feel like I might die”
S Short of breath



Watch for a combination of these symptoms. If you suspect sepsis, see a doctor urgently, CALL 911 or go to a hospital and say, “I AM CONCERNED ABOUT SEPSIS.”

SEPSIS.ORG

What is sepsis? PRESENTED BY SEPSIS.ORG

Sepsis is...

-  **THE BODY'S TOXIC RESPONSE TO INFECTION**
-  **PREVENTABLE AND TREATABLE IN MOST CASES USING EXISTING PROTOCOLS**
-  **THE #1 COST OF HOSPITALIZATION IN THE US – MORE THAN \$24 BILLION EACH YEAR**
-  **THE LEADING CAUSE OF DEATH IN US HOSPITALS**

Download PDF

Source: <http://www.hcup-us.ahrq.gov/reports/statbriefs/sb204-Most-Expensive-Hospital-Conditions.pdf>

Source: <http://jama.jamanetwork.com/article.aspx?articleid=1873131&resultClick=3>

Infographics cont'd.

<http://www.sepsis.org/resources/infographics/>



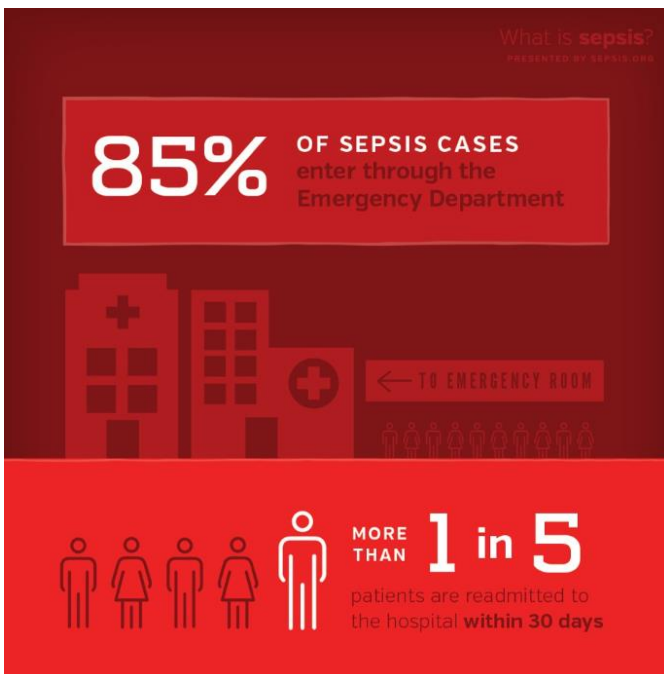
[Download PDF](#)

Source: <https://www.med.unc.edu/pediatrics/news/2015/june/june-10/code-sepsis>

Source: <http://www.ncbi.nlm.nih.gov/books/NBK65391/>

Source: <http://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm>

Source: http://sepsis.org/news/2016/number_one_cause_of_readmissions/



[Download PDF](#)

Source: <http://jama.jamanetwork.com/article.aspx?articleid=1873131&resultClick=3>

Source: <https://www.hcup-us.ahrq.gov/reports/statbriefs/sb196-Readmissions-Trends-High-Volume-Conditions.jsp>

Infographics cont'd.

<http://www.sepsis.org/resources/infographics/>




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Source: <http://jama.jamanetwork.com/article.aspx?articleid=1873131&resultClick=3>

Source: <http://www.ncbi.nlm.nih.gov/pubmed/16625125>

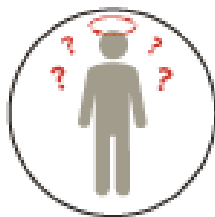
Infographics cont'd.

Provided by CDC at <http://cdc.gov/sepsis>

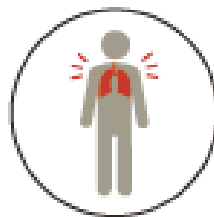


S **E** **P** **S** **I** **S**

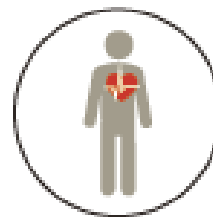
S hivering, fever, or very cold	E xtrême pain or general discomfort ("worst ever")	P ale or discolored skin	S leepy, difficult to wake up, confused	"I feel like I might die"	S hort of breath
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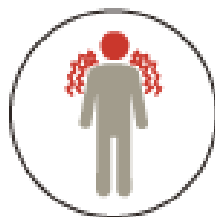
CONFUSION OR DISORIENTATION



SHORTNESS OF BREATH



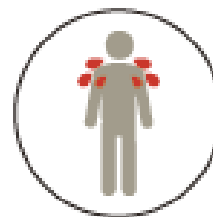
HIGH HEART RATE



FEVER, OR SHIVERING, OR FEELING VERY COLD



EXTREME PAIN OR DISCOMFORT

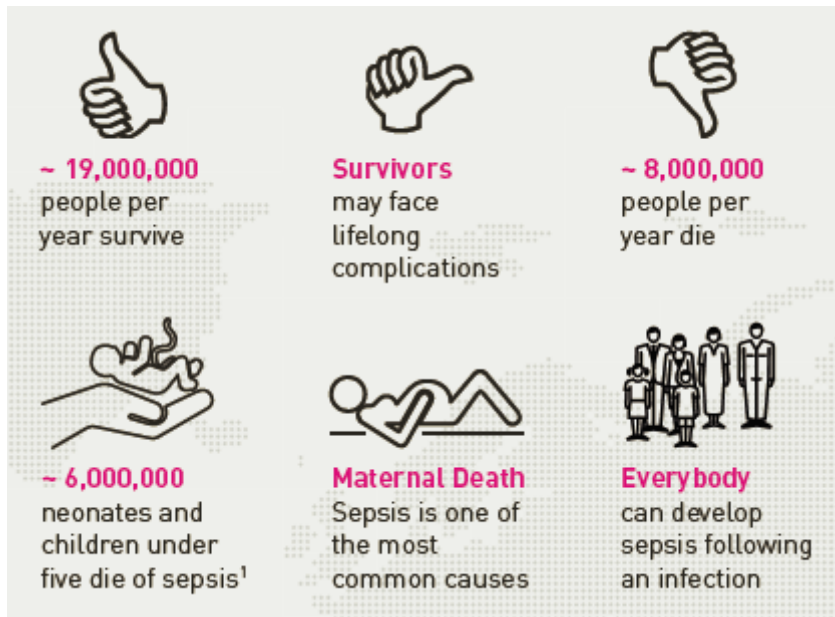


CLAMMY OR SWEATY SKIN

Infographics cont'd.

Provided by Global Sepsis Alliance at <http://world-sepsis-day.org>

September 13 : *World Sepsis Day*, more information? Visit us: www.world-sepsis-day.org



1_ Kisson N, Carcillo JA, Espinosa V, et al.: World Federation of Pediatric Intensive Care and Critical Care Societies: Global Sepsis Initiative. *Pediatr Crit Care Med*, 12:494-503, 2011. //

Every few seconds someone dies of sepsis.

Sepsis: Prevent it. Spot it. Treat it – beat it.

Infographics cont'd.

Provided by Global Sepsis Alliance at <http://world-sepsis-day.org>

The following symptoms might indicate sepsis:

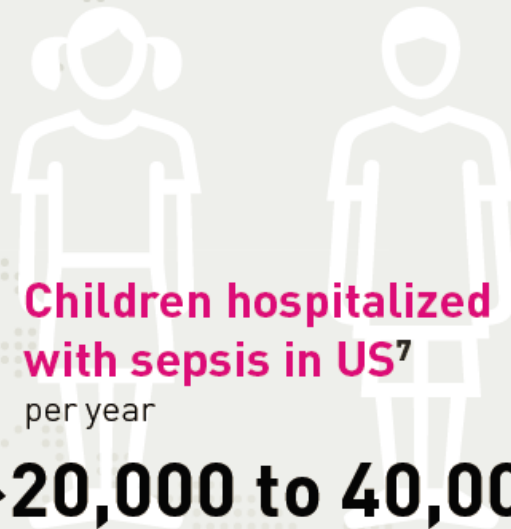
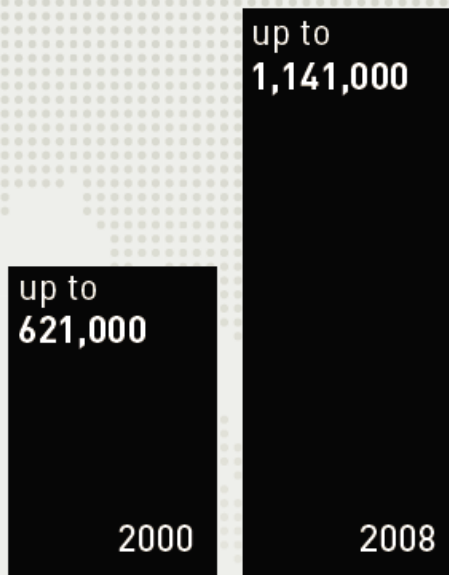
- Altered mental state
 - Fever
 - Chills
 - Feels 'severely sick'
 - Confusion
 - Apathy
- Difficult or rapid breathing
- Low blood pressure
- Rapid heart rate
- Low urine output

Two or more symptoms?
Contact your local hospital or physician.

The most common sources of sepsis are:

- Central nervous system
- Skin or soft-tissue infection
- Catheter-related infection
- Urinary tract infection
- Infection of unknown source
- Pneumonia
- Endocarditis
- Intra-abdominal infection
- Other

People hospitalized with sepsis in US⁶



⁶ <http://www.cdc.gov/sepsis/basic/qa.html> (downloaded 12.09.2014) // ⁷ A.Cruz, et al.: Implementation of Goal-Directed Therapy for Children With Suspected Sepsis in the Emergency Department, Pediatrics, January 22, 2013

Infographics cont'd.

Provided by Global Sepsis Alliance at <http://world-sepsis-day.org>

Spot Sepsis:

Early treatment saves lives.

stop
sepsis
save
lives

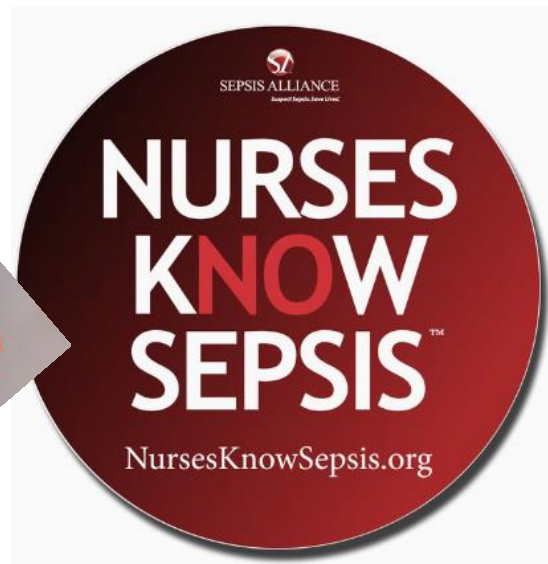
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Promotional Materials

Sepsis Alliance - <http://www.sepsis.org/shop/>



SYMPTOMS OF SEPSIS

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P Pale or discolored skin
S Sleepy, difficult to rouse, confused
I "I feel like I might die"
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Watch for a combination of these symptoms. If you suspect sepsis, see a doctor urgently, CALL 911 or go to a hospital and say, "I AM CONCERNED ABOUT SEPSIS."
SEPSIS.ORG

Odds and Ends

Sepsis, Got Lactate? Pinback Button | Zazzle



Speed is Life



**SUSPECT SEPSIS.
SAVE LIVES.™**



Ouch! I Got A Cut! is a read-along book for young children emphasizing the three "C's" of wound care. When you get a Cut: Clean and Cover! Follow Sebastian, Jilly and Nelson through a fun-filled day at the park when the inevitable happens: one of the children gets a cut but doesn't know exactly what to do. This book is available at [Amazon.com](https://www.amazon.com).

Key Sepsis Websites

Surviving Sepsis Campaign	http://www.survivingsepsis.org/Pages/default.aspx
Sepsis Alliance	http://www.sepsis.org/
World Sepsis Day	http://world-sepsis-day.org
CDC: Get Ahead of Sepsis	https://www.cdc.gov/sepsis/
Rory Staunton Foundation	https://rorystauntonfoundationforsepsis.org/

CHA has a goal to provide you with the tools and education needed to minimize the impact of sepsis on patients in Colorado. Please do not hesitate to reach out if we can assist you in your efforts.

Toni Foos, infection prevention manager
Toni.Foos@cha.com