September 6, 2016
Focus: See it.
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Learning Objectives & Housekeeping

Learning Objectives
• Describe the Indiana sepsis mortality impact
• Define rapid assessment steps for prompt identification to prevent sepsis progression: See it.
• List Indiana Sepsis Awareness Campaign resources

Housekeeping Items
• Slide deck and recording will be posted to inhen.org website under the News & Events tab
• Chat feature will be monitored throughout the hour
• All lines will be opened for discussion following the hospital feature. If not speaking, please mute your line and do not place on hold
Indiana’s Bold Aim

To make Indiana the safest place to receive health care in the United States... 

if not the world
SEE IT. STOP IT. SURVIVE IT.

This year, more than one million people in the United States will get Sepsis.*

Up to half of those people will die. Start a conversation with your doctor today.

SurviveSepsis.com

ALMOST 3,500 HOOSIERS DIE EACH YEAR FROM SEPSIS*

DON’T BE A STATISTIC.

SurviveSepsis.com
Sepsis: The Indiana Impact

- Average charges for a patient with a sepsis diagnosis are approximately $44,000
- Sepsis as the primary diagnosis is the highest utilization of inpatient stay charges

Top 5 Statewide APR-DRGs with Highest Number of Mortalities
Adjusted Risk of Mortality Index CY 2015

- Septicemia: 55.6%
- Pulmonary edema & respiratory failure: 16.7%
- Heart Failure: 11.7%
- Simple pneumonia: 7.7%
- Respiratory system diagnosis with ventilator support 96+ hours: 7.2%

Source: IHA's Inpatient Discharge Study (IDS)
Indiana Inpatient Hospital Sepsis Annual Mortality Rate

No current national benchmarks

IHA’s sepsis mortality rate has excluded palliative care and hospice patients

In 2015, the sepsis mortality rate, including palliative care and hospice patients, was 10.09%

**NOTE:** Septicemia mortality is calculated using all discharges grouped to APR-DRG 720 Septicemia, excluding records with a diagnosis code V66.7 Palliative Care and ICD-10 code Z51.5 for Palliative Care starting with 4th quarter 2015.

*IHA Inpatient Discharge Study*
• May 3: IHA hosts Sepsis Coaching Call & features two Indiana hospital teams
http://inhen.org/news-and-events/
• June 7: IHA hosts annual Indiana Patient Safety Summit including focus on sepsis
• September: Indiana Hospital Association launches statewide Sepsis Awareness Campaign; Sepsis: See it. Stop it. Survive it.
• Sept. 23: HEN 2.0 concludes

HEN 2.0 & Core Measure

2015

• April: IHA convenes multidisciplinary work group/faculty to review evidence-based interventions for sepsis identification, treatment and survival
• Sept. 4: IHA Sepsis Awareness Month Newsletter
• Sept. 11: Faculty recommendations to the IHA Council on Quality & Patient Safety (CQPS)
• Sept. 25: Faculty webinar to release tools and resources to improve early recognition, prompt treatment and sepsis survival
https://www.ihaconnect.org/Quality-Patient-Safety/Pages/Sepsis.aspx

2016 Indiana Sepsis Awareness Campaign

• Sept 24: CMS deploys HEN 2.0 for one year to continue harm reduction work
• 97 acute care hospitals partner with IHA and HRET to continue and expand harm reduction work
• HEN 2.0 includes sepsis as an “additional” topic for reporting
• Beginning with Oct. 1 2015 inpatient discharges, CMS launches Severe Sepsis/Septic Shock Core Measure reporting
• Dec: IHA CQPS directs increased focus on sepsis

Sepsis Faculty Convened

2015

• CMS deploys the Hospital Engagement Network (HEN) Partnership for Patients (PIP) initiative to reduce health care associated harm
• 116 Indiana acute, long-term care and rehabilitation hospitals partner with IHA and the Health Research & Educational Trust (HRET)
• Sepsis is an “optional” topic for hospitals to report
• Program concludes Dec. 8, 2014

Partnership for Patients 2012-2014

• IHA collaborates with member hospitals and eleven regional patient safety coalitions to reduce sepsis mortality
• Outcome data is provided for individual hospitals and coalition-wide performance and comparison

2008 Sepsis Mortality Data

• Sept 23: HEN 2.0 concludes

https://www.ihaconnect.org/Quality-Patient-Safety/Pages/Sepsis.aspx
2016 Indiana Patient Safety Summit

2016 Innovation Award Recipient
Sepsis Team
Franciscan St. Anthony Health
Michigan City

Ciaran Staunton, Co-Founder & Dad
The Rory Staunton Foundation

Thomas Ahrens, PhD
Nurse Researcher & Educator

SURVIVESEPSIS.COM
Indiana Campaign

September is Sepsis Awareness Month
• Recognize high risk individuals
• Prompt identification upon presentation: leverage clinical judgement and critical thinking beyond checklist and technology alerts
• Community awareness
• Always ask, “Could it be sepsis?”
See it. Polling Question #1

Sepsis screening implementation success can vary by department or discipline.

Which group has experienced the smoothest implementation at your facility?

a) Emergency Department
b) Physician providers
c) Critical Care units
d) Inpatient wards
See it. Polling Question #2

What do nurses do if their patient screens positive for sepsis?

a) Call M.D.
b) Nothing, everybody has SIRS
c) Call the rapid response team
d) Draw a blood culture and lactate
e) Activate the sepsis order set
Welcome our Subject Matter Expert

- Improvement Advisor with Cynosure Health
- Over 25 years of hospitals operations and nursing leadership at Kaiser Permanente
- Extensive Experience in Critical Care, Patient Safety, ABCDEF Bundle and Rapid Response Team implementation and Sepsis Mortality Reduction

Maryanne Whitney, RN CNS MSN
Johnson Memorial Health

Located in Franklin, IN
125 bed acute hospital
See It – Inattentional Blindness

https://www.youtube.com/watch?v=IGQmdoK_ZfY

We often miss what we don’t expect to see
Sepsis/Infection is a Spectrum
Potential Infection Indicators

- Cultures Obtained
  - Yes → Antibiotics Ordered
  - No → Imaging Suggests Infection

- Antibiotics Ordered
  - Yes
  - No → Imaging Suggests Infection

- Imaging Suggests Infection
  - Yes
  - No → Infection Suspected or Treated

- ≥2 SIRS Present
  - Yes → Infection Suspected or Treated
  - No → No

- Infection Suspected or Treated
  - Yes
  - No → Infection with 0-1 SIRS

- Infection with ≥2 SIRS
- Sepsis
- Severe Sepsis
- Septic Shock
- Multiorgan Dysfunction Syndrome
Education

- Hospital Grand Rounds presentation in anticipation of Oct '15 launch of core measure
Required Education Module

Mandatory InfoNet Module
RN’s/Medics
ARU, CCU, ED, Maternity, House Supervisors

SEPSIS UPDATE
CMS Core Measure

This module is designed to introduce and educate front line staff on the Sepsis CMS Core Measure.
By the end of this module, participants should be able to:

- Recognize the nurse’s role in early identification and treatment of Sepsis, Severe Sepsis or Septic Shock as related to the CMS Core Measure
- Recall the Surviving Sepsis Campaign 3 and 6 hours bundles
- Identify changes to the Sepsis Screening tool in Meditech
- Describe appropriate utilization of the Severe Sepsis/Septic Shock Checklist
Nursing Triage & Repeat Assessments

SEPSIS SCREEN:
Has this patient undergone surgery within the last 2 days? [ ]
Has a diagnosis of sepsis been made? [ ]

Criteria for positive sepsis screen:  Most recent documented V/S:
Temp: 101 degrees F or higher       Temp: [ ]
Temp: 96.8 degrees F or lower       Pulse: [ ]
Heart Rate: above 90/min
Resp Rate: above 20/min
Acute Altered Mental Status
SBP less than 90 mm Hg
MAP less than 70 mm Hg
SBP decrease more than 40 mm Hg, from baseline, in adults
Blood Glucose more than 140mg/dL, in the absence of diabetes
Normal WBC with more than 10% immature neutrophils (bands)
WBC more than 12,000 or less than 4,000

Is an infection documented or suspected? [ ]
Are any TWO of the criteria present AND NEW? [ ] not chronic or persistent despite
Sepsis Green Sheet
Green Arm Band

• Indicates Blood Culture Obtained
Inpatient Sepsis 6hr Follow-up Assessment Note Template

# Sepsis
-SIRS criteria of: fever, hypothermia, tachycardia, tachypnea, leukocytosis, leucopenia
-Suspected site of infection: Pulmonary, GI, Urinary, CNS, Skin
-In-hospital concurrent diagnoses: leukocytosis, leucopenia, bandemia, neutropenia, thrombocytopenia, coagulation abnormalities, hyperbilirubinemia, hyperlactatemia, arterial hypotension, elevated cardiac index, arterial hypoxemia (P/F), acute oliguria, increased creatinine, acute renal failure, paralytic ileus, altered mental status
-Cultures:
  Blood:
  Urine:
  Sputum:
  CSF:
-Fluid Resuscitation: 30mL/kg target:
-Vasopressors: Norepinephrine, Vasopressin, Dopamine, Dobutamine
-Medications: ( - present)
Direct Provider Feedback Loop

• Data collection
• Sepsis Committee Review
• Champion feedback to providers
  – Global statistics/trends
  – Specific cases they were involved in
Sepsis Core Measure Checklist Review

All Patients with Infection/Possible Sepsis Spectrum:
- Infection identified/documented in ED with relevant sepsis orders initiated
- Lactate result (not order)
- IF > 2.0 mmol/L:
  - Documentation calling this “Severe Sepsis”
  - Repeat Lactate result (order 2hrs after prior draw time through “Infection” Order Set)
- Blood Cultures drawn not ordered (prior to ATB)
- Broad Spectrum IV Antibiotic (ATB) initiated (not ordered) within 3 hours of Time Zero
- Selection from Empiric Broad Spectrum Antibiotic List (on green sheet)
- Sepsis Template used in note
  - SIRS criteria indicated
  - Suspected site(s) indicated
  - In-hospital concurrent diagnoses indicated
  - Cultures indicated
- 30mL/kg Target documented
- Antibiotics/Medications indicated
- Assessment for 2nd organ dysfunction indicating Severe Sepsis (Lactate > 2.0 mmol/L, INR > 1.5, PTT >60sec, Platelet < 100,000, Bilirubin > 2, Creatinine >2, Urine output <0.5 mL/kg/hr for 2 hours, SBP <90, MAP <65, SBP decrease by >40 from previous “normal”, Acute Respiratory Failure w/ intubation or BiPAP) but not when Chronic or due to Medication

IF Severe Sepsis:
- Consider 30 mL/kg Crystalloid Fluid Bolus (0.9% NS or LR)
- Repeat Lactate result (order 2hrs after prior draw time through “Infection” Order Set which will order 2 additional Lactates)
- Documentation calling this “Severe Sepsis”

IF Septic Shock:
SEPTIC SHOCK = Lactate ≥ 4.0 and/or Sepsis-induced hypotension (SBP less than 90 mmHg, MAP less than 65 mmHg, or SBP decrease greater than 40 mmHg from baseline) in the hour after fluid resuscitation (30mL/kg) for ≥ 2 consecutive BP readings
- Documentation calling this “Septic Shock with Severe Sepsis”
- 30 mL/kg Crystalloid Fluid Bolus (0.9% NS or LR) for Hypotension or Lactate ≥4
  - >125mL/hr
  - 30mL/kg Target achieved within 6 hours of Time Zero of Lactate ≥4.0 and/or Sepsis-induced hypotension
- Vasopressors (Norepinephrine 1st choice unless compelling reason for alternative)
- Within 6 hours of Time Zero of Lactate ≥4.0 and/or Sepsis-induced hypotension
- Repeat Volume Status and Tissue Perfusion Assessment Note consisting of including vital signs, cardiopulmonary, capillary refill, pulse, and skin findings (you may write the note after 6 hours so long as you document the time you examined the patient which must be <6hrs)
Shift the Culture
Think Sepsis, Think Emergency!
Reflections/Best Practices-Maryanne Whitney

• Screen all adult patients in ED at triage
• Screen all inpatients for sepsis every shift and at transfers
• Use the EMR- build to work for your facility
• Develop Alerts- overhead and electronic
• Optimize Rapid Response Team (RRT) involvement
  – Sepsis Alerts
  – Proactive rounding
  – +sepsis screen
  – Screen all RRT calls for sepsis
  – Lactate reports
Open Lines or Chat In

See it: Successes & Challenges

1. What type of staff development are you doing re: sepsis recognition and who are you including?

2. How are you informing and engaging your community to raise awareness about sepsis?
Call to Action-See it.

Could it be SEPSIS?

Staff Development

Community Engagement
Sepsis Awareness Month Resources

- **Aug. 9** Deployment of IHA Sepsis Awareness Toolkit
- **Sept. 1** Launch of IHA sepsis site: *SurviveSepsis.com*
- **Sept. 22** Empowering Nurses for Early Sepsis Recognition
  2pm ET Register: [https://cc.readytalk.com/r/jgtxnnpp9bw2&eom](https://cc.readytalk.com/r/jgtxnnpp9bw2&eom)

- Other web resources:
  - **IHA**: ihaconnect.org
  - **IHA HEN 2.0** microsite: inhen.org
  - **HRET** (Health Research & Educational Trust): hret-hen.org
  - **CDC**: cdc.gov/sepsis
  - **Sepsis Alliance**: sepsis.org
  - **The Rory Staunton Foundation**: rorystauntonfoundationforsepsis.org
  - **Surviving Sepsis Campaign**: survivesepsis.org
  - **Global Sepsis Alliance**: global-sepsis-alliance.org
To access the toolkit, visit:
https://www.ihaconnect.org/Quality-Patient-Safety/Pages/Sepsis.aspx
High Risk Patients & Fact Sheet

Patients at High Risk for Sepsis

1. Ask yourself: “Could it be sepsis?”
   - Sepsis can be confusing and hard to diagnose. It shares many symptoms, such as fever and difficulty breathing, with other conditions, which might seem like a simple “run of the mill.” Be on the lookout for these signs:
     a. Fever or chills
     b. Infection or injury
     c. Specific signs of sepsis, such as a rash,numbness or tingling in the extremities, or confusion
   - Is there a fever, cold, or flu-like symptoms?
   - Is there any sign of a severe fever or shivers?

2. Recognize patients at high risk for sepsis.
   - We can use sepsis criteria, the SSC criteria, to identify some patients at higher risk:
     a. Age ≥ 65 years of age
     b. Any underlying condition (e.g., chronic disease, malignancy, HIV infection)
     c. Immunosuppression
     d. Recent surgery or trauma
     e. Severe illness or infection

3. Assess clinical presentation.
   - If you suspect sepsis, check your patient for any of these signs and symptoms:
     a. Fever
     b. Hypotension
     c. Shortness of breath or difficulty breathing
     d. Diaphoresis
     e. Abdominal pain or cramps
     f. Exams
     g. Hypotension without diabetes
   - Examine the patient for any signs of infection:

   - For evidence-based treatment guidelines, visit www.sepsis.org.
   - Treat severe sepsis and septic shock as a true medical emergency.

5. Implement preventative/protective measures.
   - As healthcare professionals, it is our responsibility to educate our patients about what sepsis is and the importance of prompt recognition and treatment.
   - These sepsis education materials available in waiting areas and treatment rooms.

Sepsis Fact Sheet

Sepsis is a global health care problem. According to the Global Sepsis Alliance, it is more common than heart attack and stroke combined, and it affects more people per year than all types of cancer combined. Sepsis is a serious medical emergency, and failure to promptly diagnose and treat can be deadly.

Worldwide:
1. Every three seconds, someone around the world dies of sepsis.
2. More than one million people get sepsis each year in the United States, and up to 40% of these people die.
3. Sepsis can occur in anyone, regardless of age or state of health.
4. Sepsis kills 650,000 people in the United States each year.
5. Every three minutes, an American dies from sepsis.
6. Sepsis kills more people than prostate cancer, breast cancer and AIDS combined.
7. More than 42,000 children in the United States develop severe sepsis each year, and 11 of every 100 children die—most within hours.
8. Sepsis causes the most myocardial deaths every year worldwide, and is the most common cause of preterm deliveries in the United States.
9. 4 in 5 percent of American adults have heard of sepsis.

State of Indiana Facts:
1. Around 1,300 Hoosiers die each year from sepsis.
2. In 2014, there were more new diagnoses of sepsis than any other diagnosis.
3. The average cost to treat a patient with a sepsis diagnosis in Indiana is around $5,600.
4. Sepsis is the most frequent inpatient discharge diagnosis, aside from diabetes.
5. In 2014, sepsis was the primary diagnosis responsible for the highest utilization of inpatient care charges.

References:
Frequently Asked Questions

Sepsis FAQ

According to the Global Sepsis Alliance, sepsis is the leading cause of death worldwide, and the individual and societal costs of sepsis are enormous. By recognizing and treating sepsis early, death can be prevented. The following FAQ are according to the Centers for Disease Control and Prevention (CDC) and will be updated to reflect the latest changes in treatment and management of sepsis.

What is sepsis? Sepsis is the body’s overwhelming and life-threatening response to infection. It can lead to tissue damage, organ failure and death. If not treated, sepsis can be deadly.

What causes sepsis? Any type of infection, anywhere in the body, can cause sepsis. This can include seemingly minor infections on the skin or urinary tract infections, pneumonia or appendicitis.

How common is sepsis? According to the CDC, there are more than 1 million cases of sepsis each year, and up to half of the people who develop sepsis will die.

Who can get sepsis? Sepsis can affect anyone of any age, from any type of infection, or even no known infection.

Are some people more at risk for getting sepsis? While sepsis can affect anyone, you may be at higher risk if you:
- Have a weakened immune system
- Are under age 1 or over age 65
- Have an existing medical condition
- Recently had surgery or trauma hospitalization
- Have diabetes mellitus (Type 1 or 2), heart disease, liver disease, or kidney disease
- Have a severe cut or burn

What are the signs and symptoms of sepsis? There are many signs or symptoms of sepsis. Because sepsis is often mistaken for other common infections, such as the flu, severe infection isn’t treated, and complications can include any of the following:
- Shaking, fever, chills, or sweating
- Cold, clammy skin or extremities
- Rapid breathing
- A change in mental state
- Severe headache, including a severe or sudden onset
- Severe abdominal pain
- Severe nausea or vomiting
- Shortness of breath

If you have an infection along with any of these symptoms, you should seek medical treatment immediately.

How is sepsis diagnosed? Sepsis can be difficult to diagnose because it shares many signs and symptoms with other conditions. If you or a loved one develop any of these symptoms, it is important to seek medical attention immediately.

How is sepsis treated? The serious complications of sepsis that should be treated at a hospital. Health care providers will administer antibiotics and work to treat the infection, including surgery or hospitalization. In some cases, certain types of treatment may be required, including oxygen therapy, IV fluids, or assisted breathing with a mechanical ventilation device. In severe cases, surgery may be required to remove tissues damaged by infection.

How can I prevent sepsis? While there is no way to completely prevent the possibility of sepsis, there are many ways to reduce your risk, including:
- Get vaccinated. Protect yourself against the flu, pneumococcal and other infections that can lead to sepsis. Talk to your healthcare provider for more information.
- Be sure to cover your cough and sneeze. Wash and dry your hands and cover your mouth and nose with a tissue when you cough or sneeze.
- Avoid direct contact with pets and their saliva.

Are there any long-term effects of sepsis? Many survivors recover completely, and their lives return to normal. However, some people may experience long-term effects of sepsis, including:
- Heart problems
- Blood clots
- Kidney disease
- Lung problems
- Liver problems
- Limb amputation
- Cognitive problems
- Post-sepsis syndrome
- Post-traumatic stress disorder

If you suspect that you or a loved one has post-sepsis syndrome, talk to a health care provider about resources for emotional and psychological support.

For more information, visit SurviveSepsis.com
Community Awareness - See it.

Billboard Template - Outdoor Advertising
See it. Social Media & Posters

See it. Stop it. Survive it.

SEPTEMBER: SEPSIS AWARENESS MONTH // SURVIVESEPSIS.COM

Use these hashtags throughout the month:
#SurviveSepsis #SaferHoosiers #SepsisAwarenessMonth
September 13, 2016

World Sepsis Day

Indiana Sepsis Awareness Day

Rally Against Sepsis
9:30 – 11 a.m. ET
Indianapolis Artsgarden, downtown Indianapolis
As the Series Continues . . .

September 13  Stop It.
September 20 Survive It.
September 27 Pulling It All Together

Please share and invite your colleagues
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