

PATIENT & FAMILY ENGAGEMENT: THE VOICE OF THE SEPSIS PATIENT AND CAREGIVER

March 16, 2022

SEPSIS WEBSITE

ohiohospitals.org/sepsis















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Sepsis

Reducing Sepsis Mortality in Ohio Through Early Recognition, Appropriate Intervention

The OHA Board of Trustees identified reducing sepsis mortality in Ohio as one of the key focus areas for OHA and Ohio hospitals. Sepsis is the body's overwhelming and life-threatening response to infection that can lead to tissue damage, organ failure and death. In other words, it's your body's over active and toxic response to an infection. Sepsis impacted an estimated 41,000 Ohioans in 2017. Early recognition and treatment can reduce the morbidity and mortality of sepsis.

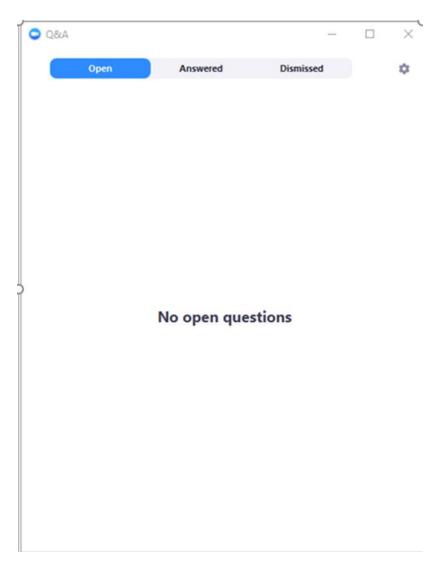
Ohio Hospital Association ohiohospitals.org March 16, 2022

CONTINUING EDUCATION

- The link for the evaluation of today's program is: https://www.surveymonkey.com/r/Sepsis-March2022
- Please be sure to access the link, complete the evaluation form, and request your certificate. The evaluation process will remain open <u>two weeks</u> following the webcast. Your certificate will be emailed to you when the evaluation process closes after the 2-week process.
- If you have any questions, please contact Dorothy Aldridge (Dorothy.Aldridge@ohiohospitals.org)

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SUBMITTING QUESTIONS



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PRESENTER



Rebecca Hancock, Ph.D., RN, CNS, CCRC Quality & Patient Safety Advisor Indiana Hospital Association Indianapolis, IN



Patient & Family Engagement:
The Voices of Sepsis Patients & Caregivers
Ohio Hospital Association
March 16, 2022
Rebecca Hancock, PhD, RN, CNS, CCRC
Quality & Patient Safety Advisor
Indiana Hospital Association

severe abdominal pain crippling pain unwell getting worse couldn't feel legs unable to eat stopped breathing low blood pressure low potassium rash stomach distension weight loss disoriented delusions gasping for air end stage renal failure faintness incarcerated hernia diverticulitis cold or flu-like agony pain shock flu-like panicking felt worried hard to arouse cold shivering infection left lung infection organs shutting down pulmonary embolism bug bites
unable to move comfortably feel legs SEPSIS coded vomiting not moving very sick urine infection

The pale of difficulty breathing fever cough high white blood count caregiver upset water infection hemorrhaging Confusion

Ovarian cancer scared not eating bowel blockage felt warm and cold weakness weakness urinary tract infection organs swelling shaking violently feeling body shutting down distressed unable to do anything diverticula unable to walk unstable blood pressure, heart rate, breathing unresponsive fistula

Sepsis Victim: ML



- ▶Because our mum had been a sufferer of rheumatoid arthritis for 24 years the GPs who visited her assumed mum was suffering a flare up. This was not the case. Unfortunately, mum was not assessed by any of the GPs and was left in severe pain for a week before bring admitted as a 999 call. Mum had all the signs of sepsis but sadly these were missed.
- The paramedics who attended her however knew instinctively what the problem was and admitted her to hospital.
- ▶If the health professionals had educated themselves in the symptoms of sepsis and better still educated our mother and her family of the risks she faced with infection we might have saved her.

Objectives



- Describe differences in SIRS criteria and patients' and caregivers' descriptors of sepsis symptoms
- State patient sepsis self-management strategies and characteristics that may mask symptoms
- Identify domains of sepsis patient and family education
- Describe importance of education in pre- and post-acute care for sepsis
- Describe applications of patient and family engagement strategies for sepsis patients and caregivers

How did this happen?







Using the life course perspective to study the entry into the illness trajectory: The perspective of caregivers of people with Alzheimer's disease Normand Carpentier a.*, Paul Bernard b, Amanda Grenier c, Nancy Guberman d



History: Sepsis Inpatient Guidelines

- 2001 drotrecogin alfa (Xigris) Eli Lilly approved by FDA
- ▶ 2004: Sepsis Guidelines 1st edition
- ▶ 2007: Sepsis Alliance founded
- ▶ 2008: Sepsis Guidelines 2nd Edition
- 2011: drotrecogin alfa (Xigris) FDA approval withdrawn due to bleeding side effects and unable to duplicate results
- 2012: Sepsis Guidelines 3rd Edition (Dellinger et al., 2013)
- 2015: Inpatient compliance monitored by Centers for Medicare & Medicaid
- 2016: Sepsis Guidelines 4th Edition (Rhodes et al., 2017)
- ▶ 2017: Hospital guideline compliance nationwide, 47%
- 2018: Hospital compliance published on publicly available Hospital Compare website
- ▶ 2021: Sep-3 Sepsis Guidelines, 5th Edition

Population and systems based approaches for sepsis prevention



Kempker et al. Critical Care (2018) 22:116 https://doi.org/10.1186/s13054-018-2048-3

Critical Care

COMMENTARY

Open Access

Sepsis is a preventable public health problem



Jordan A. Kempker^{1*}, Henry E. Wang² and Greg S. Martin¹

Abstract

There is a paradigm shift happening for sepsis. Sepsis is no longer solely conceptualized as problem of individual patients treated in emergency departments and intensive care units but also as one that is addressed as public health issue with population- and systems-based solutions. We offer a conceptual framework for sepsis as a public health problem by adapting the traditional model of primary, secondary, and tertiary prevention.

Primary Prevention of Infections and Sepsis Onset

Immunization

Hygiene

Public Awareness

Antibiotic Prophylaxis

Manage Risk Factors

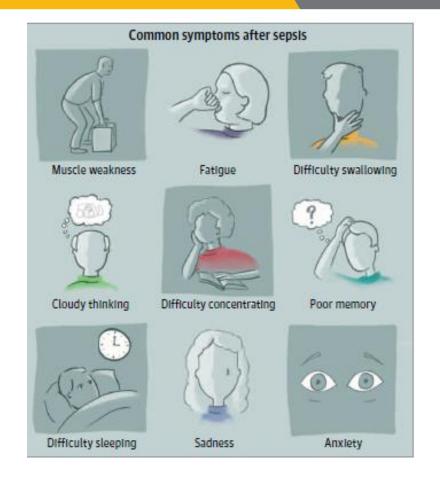
Dialysis Center participation in NHSN, CDC database for tracking infections?

Life after Sepsis



• Impairments:

- Average 1-2 new functional limitations (e.g. inability to bathe)
- 3 fold increase in mod-severe cognitive impairment
- High prevalence of anxiety (32%), depression (29%),
 PTSD (44%) (Prescott, 2018)



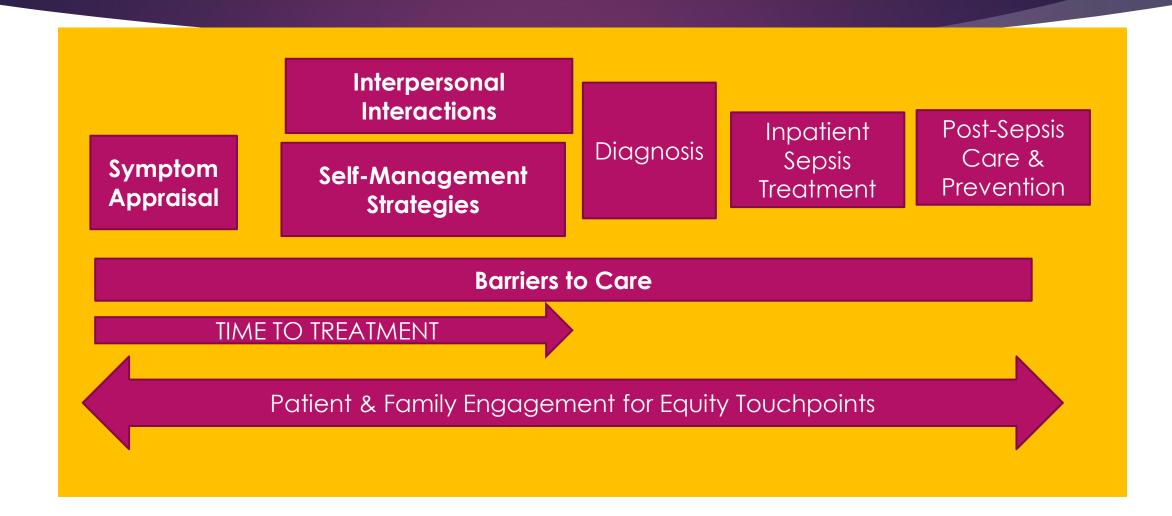
Connect to Purpose: Sepsis Recovery





 THE REALITY OF THE SEPSIS EXPERIENCE
 & HEALTHCARE OPPORTUNITIES IN RECOVERY-Suzanne's Story

Patient & Family Engagement Opportunities

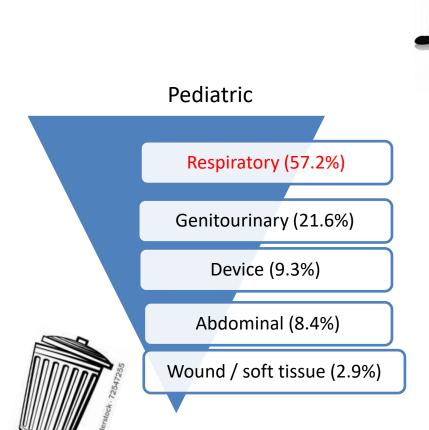


Review of Qualitative Literature: Barriers

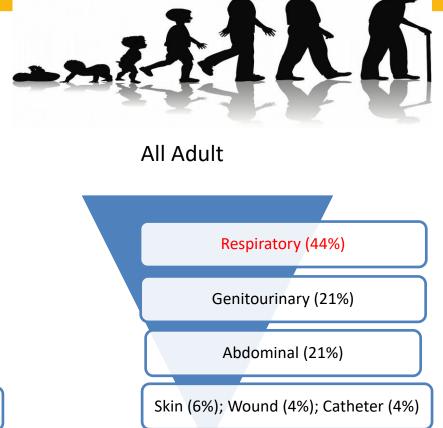
- Pre-Acute neutropenic patients & delays-qualitative interviews (Clarke et al. 2015)
 - Patients not taken seriously by medical staff
 - Patient denial
 - ▶ Poor provider-patient communication
 - Patient fear of hospital & wishing symptoms would pass
 - Mis-attribution of symptoms
- Post-acute interviews (Gallop et al., 2015)
 - ▶ Lack of appropriate education and healthcare providers/services
- Awareness: Muliti-national German Sepsis Helpline (Rubulotta et al. 2009)
 - Lack of knowledge of sepsis and symptoms

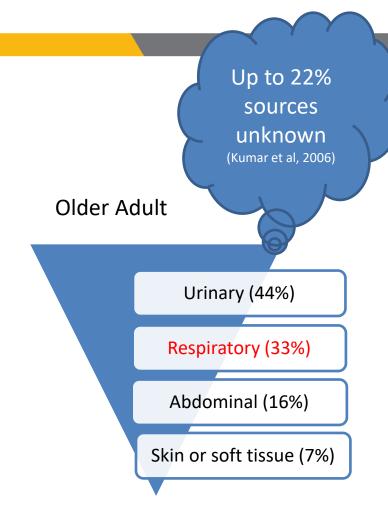
Most Common Sources of Sepsis





©Rebecca Hancock





(Ruth et al, 2014; Kumar et al, 2006; Levy 2010; ElSohl et al, 2008)

Risk Factors for Sepsis



- Recent UTI, pneumonia or operative event
- Diabetes
- Immunosuppressive therapy
- Elective surgery
- Chronic renal failure
- Alcohol abuse
- Functional status change
- Non-modifiable factors: age (very old or young), gender (M>F), race (B>W)

(Kumar et al, 2006; Torres et al, 2004; Englert & Ross, 2015)

Sepsis Signs & Symptoms

SYMPTOMS OF SEPSIS

- Shivering, fever, or very cold
- Extreme pain or general discomfort ("worst ever")
- Pale or discolored skin
- Sleepy, difficult to rouse, confused
- "I feel like I might die"
- 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

- Suspected or worsened infection with
 - Low blood pressure
 - Fever
 - Hypothermia
 - Heart rate over 90 bpm
 - Respiratory rate over 20 bpm
 - Significant edema
 - Hyperglycemia in absence of diabetes
 - Altered mental status?

(Dellinger et al., 2013)



Research Goals

Describe the processes and barriers for older adults when seeking care for sepsis.

Determine interventions to shorten time to treatment (duration from first symptom to treatment)

Specific Aims of the Research

Describe:

- Signs and symptoms that older adults with sepsis and their CGs consider bothersome enough to seek care;
- **Self-management strategies** that are attempted before care is sought in the ED;
- Interactions between older adults, their CGs, and health care providers from the time of symptom identification at home to when emergency care is sought; and
- **Barriers** encountered by older adults with sepsis and their CGs in seeking care in the ED.

Interview Questions-Community Acquired Sepsis

Please tell me about your loved one's underlying health condition.

Tell me about the first time when you noticed something might be wrong before the hospitalization for sepsis

Tell me about the time when you first thought your loved one might need medical care.

Tell me about when you thought you might need to go the ER

Tell me about your decision to go to the ER (Additional probes as needed).

Tell me about anyone you talked to about how he was feeling or your decision to go the ER?

Based on your experiences, what advice would you give others about seeking healthcare for symptoms of sepsis?

Is there anything else you would like me to know so I can better understand how to work with those who are experiencing the early symptoms of sepsis at home?

Symptom Appraisal

Sepsis Symptoms and Risk Factors

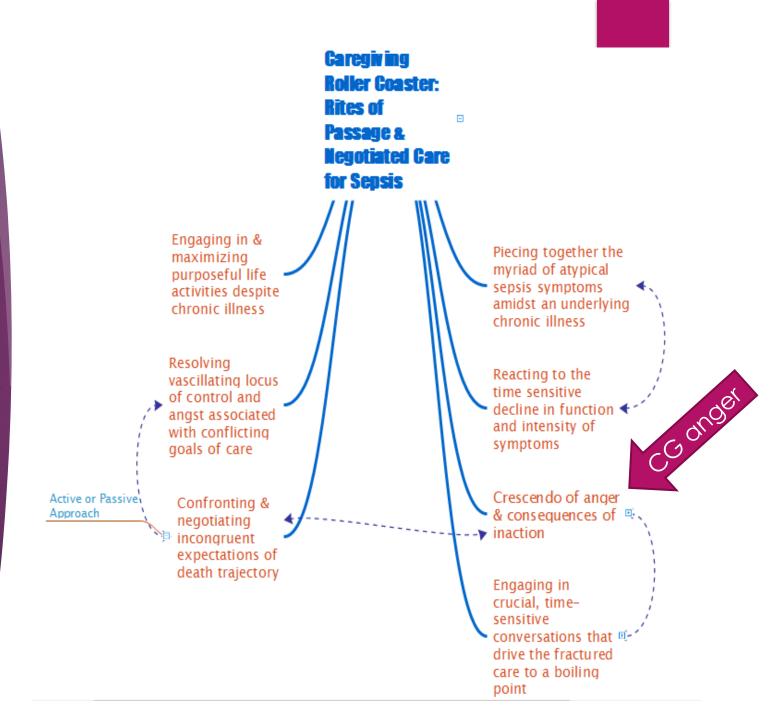
Sepsis Symptoms Observed and Experienced by Nurses				
Case Study 1: Jane	Case Study 2: Betsy	Case Study 3: Theresa		
Caregiver Observations	Caregiver Observations	Patient Experiences		
 Shaking cold Decreased urine output Listlessness Confusion † Hard to arouse Fatigue † Excessive sleep Weakness Dehydration 	 Not feeling well Fever Sweaty Decreased energy Decreased Parkinsonian movements Decreased appetite † Lethargy Eyes "wouldn't 	 Surgical site drainage Back pain with inspiration Nausea Feeling of generalized discomfort Feeling really bad Unable to get out 		
10. Decreased appetite11. Really tired12. "not feeling good"13. Scared14. Almost passed out	light up" 9. "Just not himself" 10. History of aspiration pneumonia	of bed 7. † Fever 8. Headache "like the top of my head coming off" 9. Low blood pressure 10. Vomiting 11. Heart rate 100		

I started feeling generalized discomfort, wouldn't call it pain.... I got to feeling really bad and couldn't get out of bed



Conceptual Model from Interviews

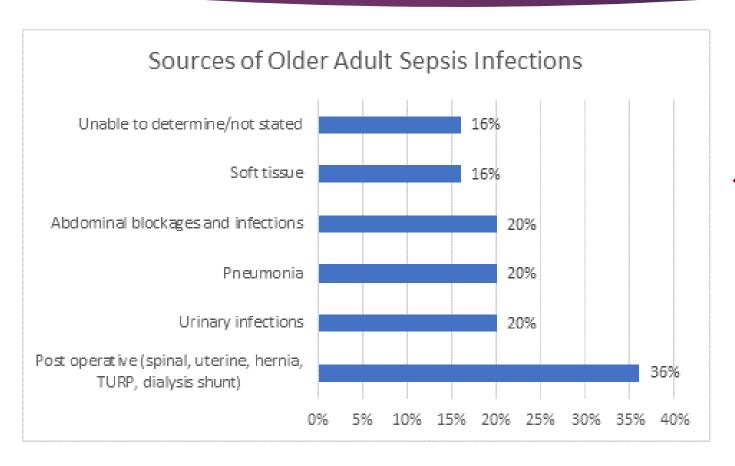
Interactions:
Nurses
Negotiating
Sepsis Care



Faces of SepsisTM Sample

- Inclusion Criteria
 - ▶ Posted after October 2015
 - Older adults identified by stated age or contextual clues
 - ▶ Patient residing at home prior to diagnosis

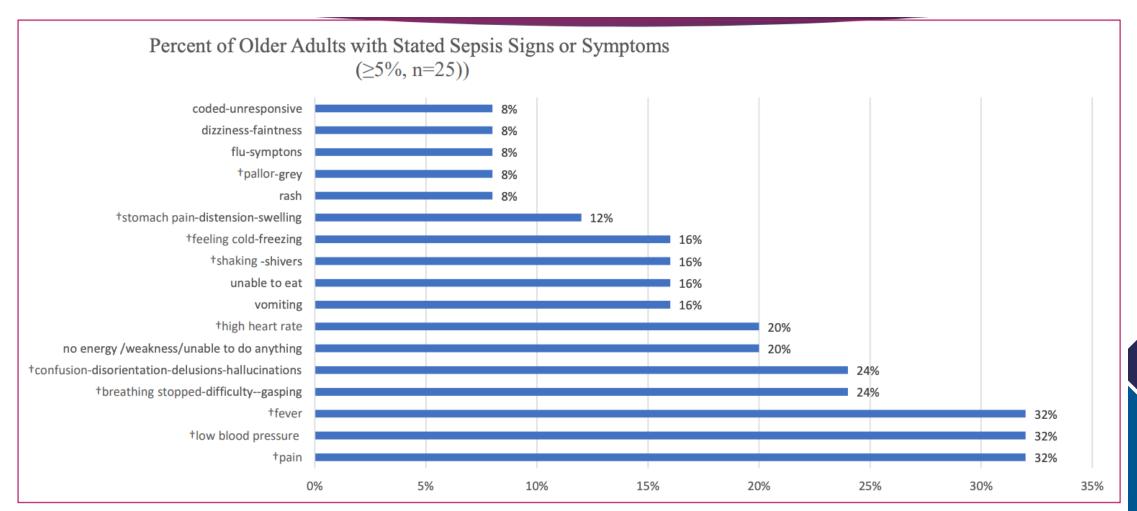
Sources of Sepsis



Agonizing, crippling pain



Rebecca Hancock's findings-Faces of Sepsis TM



† typical signs, symptoms or sepsis precursors

Self-Management Strategies: interventions when reacting to decline

- Self-medication for fever, pain, nausea
- Wound vac maintenance
- Ingesting fluids
- Information seeking--googling septicemia
- Medical attention seeking



I got sicker, but I was trying to think, "If I lie real still and drink plenty of fluids and take the ibuprofen, I'll get to feeling better"

"Treated the pain with the usual antacids and Tylenol and tried to go back to sleep"

Patient-Caregiver-Healthcare Provider Vacillating Locus of Control

"I was appalled with that 'pneumonia is Parkinson's friend' because I wasn't going to buy that...we don't have to have him die of sepsis or be in that much pain and suffering"

"I had to request that and almost demand wound cultures and then I had to almost demand they put him on antibiotics" "Quite frankly, he saved my life, because with my blood pressure going down even more, it could have been a bad scene if I hadn't gotten adequate care, but he did a fabulous job."







Emergent Themes

- ► Transitions (avg 3.3; range 1-7)
- ▶ Grief & Anger
- Gratitude
- Quality of Life

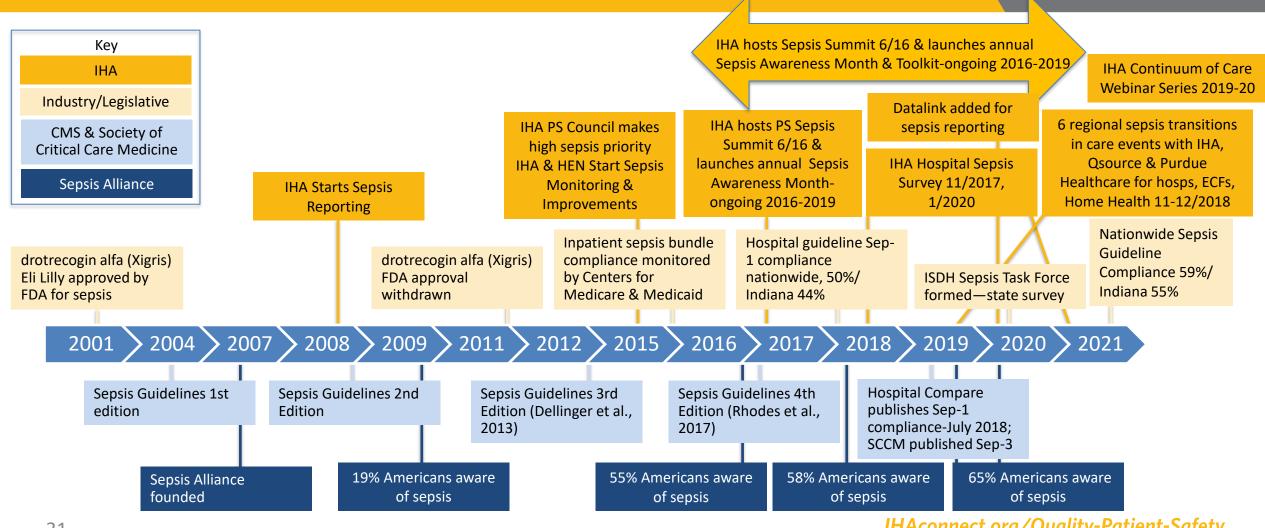
"We are truly Blessed that she is still alive and will take whatever struggles GOD gives us and we thank GOD every day for Blessing us with our beautiful mother and grandmother"

"I realize how fortunate I have been after reading about so many losses and what other survivors experienced. Thank all of you for sharing. I hope I can help someone through recuperation."



History: Sepsis Inpatient Guidelines & IHA Work





Patient & Family Engagement



- 1. Admission Checklist process is in place for planned admissions
- 2. Shift Change huddles and bedside reporting engages the family and caregivers
- 3. Discharge Planning Checklist process in place
- 4. Hospital has a designated PFE lead or department
- 5. There is an active PFE Committee or other Committees where patients are represented and report to the

*Patient & Family Engagement for Equity:

Representative ethnic diversity for quality assessment and improvement is essential (e.g. patient family advisors, data collection/validation/analysis)





Indiana IHA Sepsis Survey

digital copy in excel or word



	Check if	Check if needs	Sepsis Care Processes		
Primary Drivers	present	improvement	Secondary Drivers		
			Senior leadership support		
Leadership			Board of Directors actively support sepsis activities		
			Staff person with dedicated time to coordinate sepsis activities		
			Sepsis physician champion		
			Multi-disciplinary Sepsis Team		
			Process of Care Gap Assessment Process		
			Utilizing sepsis screening tool or process in all patient care departments		
			Emergency Department screening every adult patient during initial eval		
Screening			Automated EMR sepsis screening with early warning system		
			Pediatric screening process if applicable		
			SIRS screening process		
			qSOFA use for sep-3 criteria & insurers		
			Adult inpatient screening every shift, likely automated		
Sepsis screening process for acute changes in patient condition					
			Electronic aids for sepsis timed treatments		
Interventions			Rapid Response Team or process for prompt escalation and action from care providers		
			Nurse driven protocol to start treatment		
			Standardized sepsis guideline-based initial order set		
			time zero identification		
			blood cultures prior to antibiotic administration		
		1	blood cultures prior to antibiotic administration measure initial lactate administer proper antibiotics within 3 hours administer required fluid bolus septic shock tissue perfusion re-assessment initiate vasopressors		
			administer proper antibiotics within 3 hours		
			administer required fluid bolus		
			septic shock tissue perfusion re-assessment		
			initiate vasopressors measure repeat lactate		
			Code sepsis for prompt escalation from care providers		
			Palliative care of end of life planning as specified step in sepsis care		
			Collecting and analyzing sepsis mortality trends		
Metrics			Analysis of post-op sepsis cases		
THE CONTROL	H		Analysis of sepsis bundle compliance trends		
			Routine audit of MD, DO, APRN sepsis guideline compliance and feedback on deviations		
Documentation & Feedback			Clinical documentation specialist participating in coding and chart documentation improvements		
			Focus on sepsis staff education in daily safety huddles &/or interdisciplinary rounds		
Education			Routine education for nursing staff on sepsis screening and treatment		
			Education for physicians, APRNs, PA's for identifying and treating sepsis		
			Ancillary staff education on identifying and treating sepsis (e.g. dietary, EVS, CNA's)		
			Community outreach and education for sepsis signs and symptoms		
			Standardized sepsis patient discharge education materials		

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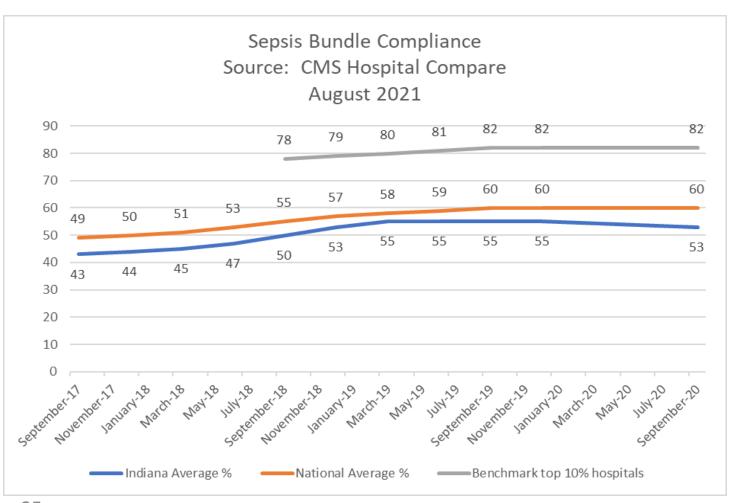
Process vs Outcomes



Process	Outcomes
Sepsis Bundle Compliance	Sepsis Mortality
See IHA State Survey Domains of Processes & Outcomes	Hospital Onset Sepsis Mortality
Driver Diagrams	Sepsis Readmissions
	AHRQ PSI 13: Post –Op Sepsis Rate (PSI-13)
	AHRQ PSI 04-D: Death rate among surgical patients with serious treatable conditions-sepsis
	Sepsis Bundle Compliance

Sep-1 Bundle Average Compliance Trend-Indiana vs Nation: Oct 19-Sep 20

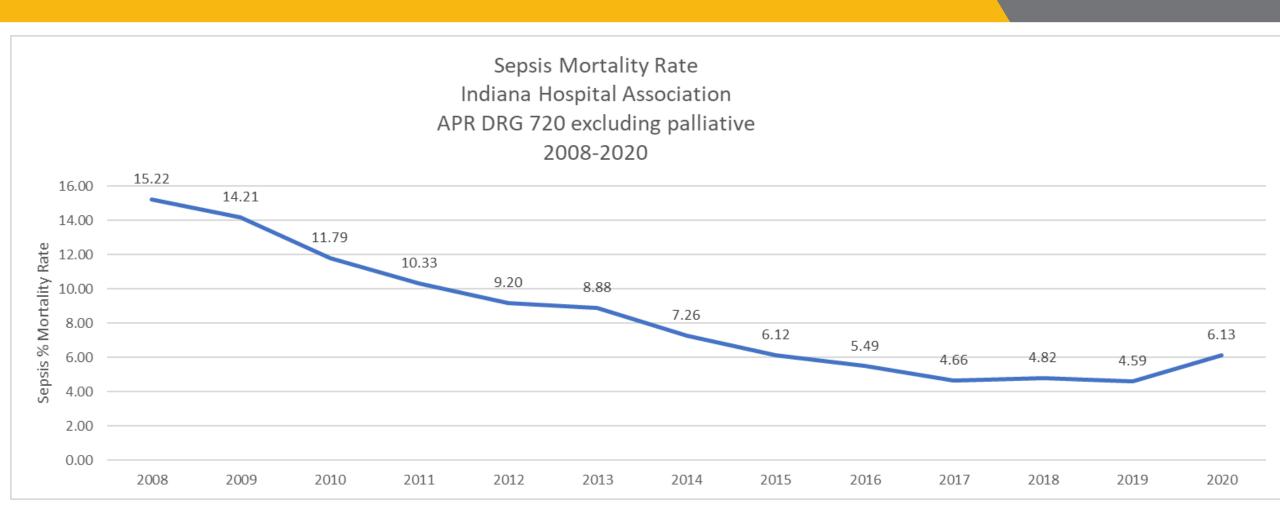




- Indiana ranked 49/56 states and principalities—ahead of VT, RI, and PR
- Range for Indiana hospitals 21-89% Compliance
- Range for National hospitals 21-94%

Indiana Septicemia Mortality





Hospital Workgroup Goals / Objectives



Goals

- Goal of ≥ 81% sepsis bundle compliance or 10% increase for Indiana hospitals by Sept 2021.
- ✓ Focused work with low bundle compliance / high sepsis mortality hospitals through June 2021
- ✓ Sharing of state sepsis survey innovations for PI with state and hospital specific PI through June 2021
- ✓ Develop state sepsis toolkit library for education, screening & interventions by Dec 2020
- ✓ Expand metrics in IHA Datalink reporting platform September 2020



Hospital Sepsis Resources



- See It. Stop It. Survive It Annual Sepsis Toolkit
 - 100 First Aid Kits
 - 50 table tents
 - 250 magnets
 - Mouthwash
 - Toothbrushes















SEPTEMBER: SEPSIS AWARENESS MONTH

IHA Clinical Webinar Library





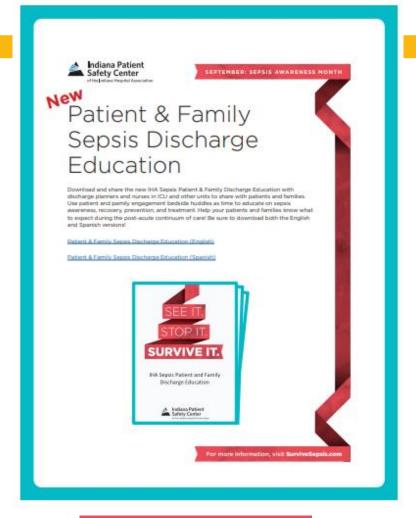
- Sep. 15 <u>Voice of Leaders: Tools for Success</u>
 Maryanne Whitney, RN,CNS, MSN, Cynosure Improvement Advisor
- Sep. 22 <u>Voice of Champions: Hospital Successes</u> Invited Hospital Champions
- Sep. 29 Voice of Sepsis Survivors: NEW Sepsis Discharge Education and Surviving Sepsis



New Sepsis Patient Discharge Education 2021 Marient Safety Center



of the Indiana Hospital Association



Recovery and Prevention

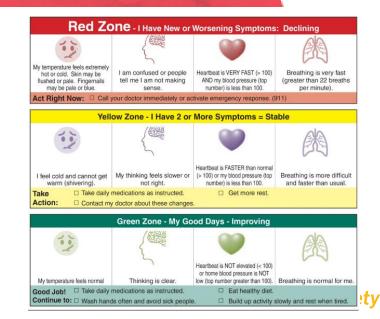
SEE IT. STOP IT. SURVIVE IT.

I am a sepsis survivor, what now?

What can I do to improve my recovery?

Caregiver Instructions for Patients Recovering from Sepsis





Sepsis Awareness Month



Show us what you're doing to celebrate!

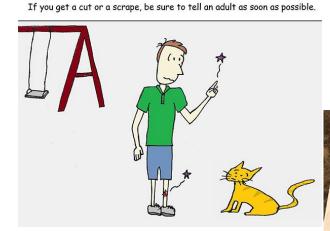
This September

be a superhero!

Join the Sepsis Superhero Challenge

and help save lives! To join, click here!

Kings Daughter's
Sepsis Team is having
a superhero poster
challenge, billboard,
and a walk to raise
awareness of sepsis
in their community.



Clark Memorial is using material from the Rory Staunton Foundation to create a children's coloring book.

Franciscan Munster!





Putnam County educates & proclaims Sepsis Awareness Day!

 Tag Indiana Hospital Association in your social media posts and send your pictures to <u>chutchens@IHAConnect.org</u> so we can post on our website

Sepsis Awareness Month





St. Catherine's





Community Munster





St. Mary's Medical Center



Franciscan Health Indianapolis

Sepsis Across the Continuum



Sepsis Topical Conversations & Best Practice Sharing

Monthly IHA Office Hour 2nd Tuesday, 11a.m. -12p.m. EST

November 12: <u>Sepsis Bundle Compliance</u>

https://zoom.us/j/467670260

Phone +1 646 558 8656 Meeting ID: 467 670 260

December 10: Screening

https://zoom.us/j/762464469 Phone +1 646 558 8656 Meeting ID: 762 464 469

January 14: Post-Sepsis Syndrome & Readmissions

https://zoom.us/j/577595555

Phone +1 646 558 8656

Meeting ID: 577 595 555F

February 11: Prevention

https://zoom.us/j/227228146 Phone +1 646 558 8656

Meeting ID: 227 228 146



www.survivesepsis.com

2019 IHA Sepsis Toolkit & webinar recordings & podcasts

2018 Preventing Hospital Acquired Non-Vent Pneumonia – Dr. JoAnn Brooks IHAconnect.org/Quality-Patient-Safety

Additional Resources



- Bi-Monthly Office Hours
- September Webinar Series
- Quarterly sharing of Regional Bundle Compliance from Hospital Compare dataset
- IHA Member Datalink Hospital & State Sepsis Mortality Trends & Benchmarks
- 2020 State Survey of Sepsis Hospital Needs Processes & Outcomes

Implications for PFE in Sepsis Care Indiana Patient Safety Center of the Indiana Hospital Association

- ▶ Listen to patient & caregiver & allow advocacy—CGs seek care > patients
- ▶ Improve outcomes with sepsis guidelines through earlier diagnosis
- Warn staff and patients of life after sepsis syndrome with grief
- Beware of mental status changes as risk factor for sepsis
- **Early access to ED** to identify source of infection
- Consider medications that mask fever, tachycardia, pain during assessment (e.g. CV meds & pain meds)—only 32% had fever
- ▶ Listen to patient & caregiver & allow advocacy—CGs seek care > patients
- Improve outcomes with sepsis guidelines through earlier diagnosis
- Warn staff and patients of life after sepsis syndrome with grief
- Beware of mental status changes as risk factor for sepsis
- **Early access to ED** to identify source of infection
- Consider **medications that mask fever**, tachycardia, pain during assessment (e.g. CV meds & pain meds)—only 32% had fever
- Research patient transfer optimization, time to treatment reductions for EMS, qualitative data analysis of narratives

Next: Patient & Family Focused Sepsis Screening Tool?

Patient Interviews



Community Acquired Sepsis Questions (includes long term care)

- 1. Please tell me about you or your loved one's underlying health condition.
- 2. Tell me about the first time when you noticed something might be wrong before the hospitalization for sepsis
- 3. Tell me about the time when you first thought your loved one might need medical care.
- 4. Tell me about when you thought you might need to go the ER
- 5. Tell me about your decision to go to the ER (Additional probes as needed).
- 6. Tell me about anyone you talked to about how he was feeling or your decision to go the ER?
- 7. Based on your experiences, what advice would you give others about seeking healthcare for symptoms of sepsis?
- 8. Is there anything else you would like me to know so I can better understand how to work with those who are experiencing the early symptoms of sepsis at home?

Faces of Sepsis TM Quotes from Survivors: Struggle & Gratitude

"Knowing my body, I realized that something was horribly wrong with me. I called an ambulance and asked the EMT's to transport me to the hospital I go for my medical care. By the time I arrived at the Emergency Room, my fever was 103.9. I don't remember much of what went on in that room in the Emergency Department that night"

"My Infectious Disease Doctor told me that when I had the shakes, coldness and shivering that a bacteria was invading my body and if that ever happened again I should go directly to the emergency room. Education is every with sepsis. I know that my Doctor saved my life."

Quotes from families of victims: Grief

"We can send people to another planet but we can't fix something that seems so simple....I miss her terribly Screw you sepsis."

"I know my entire family struggles every day with "what ifs" - had we only known the signs of Sepsis, this would have had a very different outcome."

"I share this story in hopes that people realize the importance of getting a second opinion when "something just doesn't feel right" with your body or medically. ...RIP Mom and with this story, maybe we can save a life! Peace to all!"

Sepsis & PFEE Resources



- AHRQ Guide to Patient and Family Engagement
- IHI Resources in PFEE
- Case Study Sharing (sepsis team, unit or hospital)
- CMS PERSON & FAMILY ENGAGEMENT STRATEGY
- Sepsis Alliance Speaking to Families Resources

Discussion

- ▶ What are your PFEE needs related to sepsis?
- ▶ What resources?
- What outcomes?
- ▶ What processes?



Bandura, A. (1986). Social foundations of thought and action: a social cognitive theory / Albert Bandura. New Jersey: Prentice-Hall, 1986, 16(1), 2-NaN, 617.

Carpentier, N. (2012). Caregiver identity as a useful concept for understanding the linkage between formal and informal care systems: A case study. Qualitative Health Research, 2(1), 41–49.

Carpentier, N., Bernard, P., Grenier, A., & Guberman, N. (2010). Using the life course perspective to study the entry into the illness trajectory: The perspective of caregivers of people with Alzheimer's disease. Social Science and Medicine, 70(10), 1501–1508. https://doi.org/10.1016/j.socscimed.2009.12.038

Charmaz, K. (2014). Constructing grounded theory: a practical guide through qualitative analysis. Book. https://doi.org/10.1016/j.lisr.2007.11.003 Clarke, R. T., Bird, S., Kakuchi, I., Littlewood, T. J., & van Hamel Parsons, V. (2015). The signs, symptoms and help-seeking experiences of neutropenic sepsis patients before they reach hospital: A qualitative study. Supportive Care in Cancer, 23(9), 2687–2694. https://doi.org/10.1007/s00520-015-2631-y Cornally, N., & McCarthy, G. (2011). Help-seeking behaviour: A concept analysis. International Journal of Nursing Practice, 17(3), 280–288. https://doi.org/10.1111/j.1440-172X.2011.01936.x

Creswell, J. W. (2013). Qualitative inquiry and research design: Choosing among five approaches. SAGE Publications (Vol. 3rd). https://doi.org/10.1111/1467-9299.00177

Dellinger, R. P., Levy, M. M., Rhodes, A., Annane, D., Gerlach, H., Opal, S. M., ... Zimmerman, J. L. (2013). Surviving sepsis campaign: International guidelines for management of severe sepsis and septic shock: 2012. Critical Care Medicine, 41(2), 580–637. https://doi.org/10.1097/CCM.0b013e31827e83af Draucker, C., & Martsolf, D. (2010). Life-course typology of adults who experienced sexual violence. Journal of Interpersonal Violence, 25(7), 1155–1182. https://doi.org/10.1177/0886260509340537



El Solh, A. A., Akinnusi, M. E., Alsawalha, L. N., & Pineda, L. A. (2008). Outcome of septic shock in older adults after implementation of the sepsis "bundle." Journal of the American Geriatrics Society, 56(2), 272–278. https://doi.org/10.1111/j.1532-5415.2007.01529.x

Englert, N. C., & Ross, C. (2015). The older adult experiencing sepsis. Critical Care Nursing Quarterly, 38(2), 175–181. https://doi.org/10.1097/CNQ.0000000000000059

Gallop, K. H., Kerr, C. E. P., Nixon, A., Verdian, L., Barney, J. B., & Beale, R. J. (2015). A qualitative investigation of patients' and caregivers' experiences of severe sepsis. Critical Care Medicine, 43(2), 296–307. https://doi.org/10.1097/CCM.00000000000013

George, L. (2011). As Time Goes By: Gerontological and Life Course Musings. In R. Seettersten & J. Angel (Eds.), Handbook of the Sociology of Aging (Springer, pp. 645–649). New York: Springer.

Hitlin, S., & Kwon, H. (2016). Agency across the life course. In M. Shanahan, J. Mortimer, & M. Johnson (Eds.), Handbook of the Life Course Volume II (pp. 431–449). New York, NY: Springer International.

Kirkpatrick Johnson, M., Staff, J., Schulenberg, J. E., & Patrick, M. E. (2003). Living Healthier and Longer: A Life Course Perspective on Education and Health. In Handbook of the life course: Volume II (p. 369). https://doi.org/10.1177/009430610503400314

Kumar, A., Roberts, D., Wood, K. E., Light, B., Parrillo, J. E., Sharma, S., ... Cheang, M. (2006). Duration of hypotension before initiation of effective antimicrobial therapy is the critical determinant of survival in human septic shock. Critical Care Medicine, 34(6), 1589–1596. https://doi.org/10.1097/01.CCM.0000217961.75225.E9

Lu, S. H., Chen, Y. C., Chang, Y. C., Yen, C. J., & Dai, Y. T. (2013). Effect of age on febrile response in patients with healthcare-associated bloodstream infection. Geriatric Nursing, 34(5), 366–372. https://doi.org/10.1016/j.gerinurse.2013.05.009

Martin, G. S. (2012). Sepsis, severe sepsis and septic shock: Changes in incidence, pathogens and outcomes. Expert Review of Anti-Infective Therapy. https://doi.org/10.1586/eri.12.50



Reddy, A., Blonsky, H., & Bauer, S. (2018). 11: Association between sepsis bundle compliance and hospital readmission. Critical Care Medicine, 46(1). Retrieved from https://journals.lww.com/ccmjournal/Fulltext/2018/01001/11___ASSOCIATION_BETWEEN_SEPSIS_BUNDLE_COMPLIANCE.14.aspx

Rhodes, A., Evans, L. E., Alhazzani, W., Levy, M. M., Antonelli, M., Ferrer, R., ... Dellinger, R. P. (2017). Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock: 2016. Intensive Care Medicine (Vol. 43). Springer Berlin Heidelberg. https://doi.org/10.1007/s00134-017-4683-6

Rubulotta, F. M., Ramsay, G., Parker, M. M., Dellinger, R. P., Levy, M. M., & Poeze, M. (2009). An international survey: Public awareness and perception of sepsis. Critical Care Medicine, 37(1), 167–170. https://doi.org/10.1097/CCM.0b013e3181926883

Sandelowski, M. (2000a). Combining qualitative and quantitative sampling, data collection, and analysis techniques in mixed-method studies. Research in Nursing & Health, 23(3), 246–255. https://doi.org/10.1002/1098-240X(200006)23:3<246::AID-NUR9>3.0.CO;2-H

Sandelowski, M. (2000b). Focus on research method: Whatever happened to Qualitative Description. Research in Nursing & Health, 23(23), 334–340. https://doi.org/10.1002/1098-240X(200008)23:4<334::AID-NUR9>3.0.CO;2-G

Sandelowski, M. (2010). What's in a name? Qualitative description revisited. Research in Nursing and Health, 33(1), 77–84. https://doi.org/10.1002/nur.20362

Sandelowski, M., & Leeman, J. (2012). Writing usable qualitative health research findings. Qualitative Health Research, 22(10), 1404–1413. https://doi.org/10.1177/1049732312450368

Savel, R. H., & Munro, C. L. (2012). Evidence-Based backlash: The tale of drotrecogin alfa. American Journal of Critical Care, 21(2), 81–84. https://doi.org/10.4037/ajcc2012903

Sepsis Alliance. (2016). Sepsis Alliance: News. Retrieved August 23, 2016, from https://www.sepsis.org/sepsis-alliance-news/fifty-five-percent-americans-heard-sepsis-nations-third-leading-killer-sepsis-aliance-survey-reveals/

Sepsis Alliance: Awareness Survey. Retrieved August 23, 2018, from https://sepsis.org/files/sepsis_alliance_awareness_survey_2017.pdf

Sepsis Alliance: Faces of Sepsis. (2017). Retrieved December 9, 2016, from http://www.sepsisalliance.org/faces/

Sepsis Alliance: Symptoms. (2016). Retrieved March 2, 2018, from https://www.sepsis.org/sepsis/symptoms/

Seymour, C. W., Rea, T. D., Kahn, J. M., Walkey, A. J., Yealy, D. M., & Angus, D. C. (2012). Severe sepsis in pre-hospital emergency care: Analysis of incidence, care, and outcome. American Journal of Respiratory and Critical Care Medicine, 186(12), 1264–1271. https://doi.org/10.1164/rccm.201204-07130C



Shanahan, M., Mortimer, J., & Johnson, M. K. (2016). Introduction: life course studies – trends, challenges, and future directions. In Handbook of the Life Course (pp. 1–23). https://doi.org/10.1007/b100507 Singer, M., Deutschman, C. S., Seymour, C., Shankar-Hari, M., Annane, D., Bauer, M., ... Angus, D. C. (2016). The third international consensus definitions for sepsis and septic shock (sepsis-3). JAMA - Journal of the American Medical Association, 315(8), 801–810. https://doi.org/10.1001/jama.2016.0287

Stevenson, E. K., Rubenstein, A. R., Radin, G. T., Wiener, R. S., & Walkey, A. J. (2014). Two decades of mortality trends among patients with severe sepsis: A comparative meta-Analysis. Critical Care Medicine, 42(3), 625–631. https://doi.org/10.1097/CCM.00000000000006

Sutton, J. &, & Friedman, B. (2013). Healthcare utilization project statistical brief #161: Healthcare Cost and Utilization Project, State Inpatient Databases, trends in septicemia hospitalizations an readmissions in selected HCUUP sttes, 2005 and 2010 (AZ, CA, FL, NE, NY, UT, WA).

Torio, C. M., & Andrews, R. M. (2013). Statistical brief # 160 national inpatient hospital costs: The most expensive conditions by payer. HCUP, 31(1), 1–12. https://doi.org/10.1377/hlthaff.2015.1194

Torio, C. M., & Moore, B. J. (2016). Statistical brief #204 national inpatient hospital costs: The most expensive conditions by payer, 2013. HCUP, 204, 1–15. https://doi.org/10.1377/hlthaff.2015.1194.3

Torres, O. H., Munoz, J., Ruiz, D., Ris, J., Gich, I., Coma, E., ... Vazquez, G. (2004). Outcome predictors of pneumonia in elderly patients: Importance of functional assessment. J Am Geriatr Soc, 52(10), 1603–1609. https://doi.org/10.1111/j.1532-5415.2004.52492.x

Uppal, A., & Dickerson, B. (2017). Sepsis efforts at Bellevue Hospital and SEP-1 early management bundle, severe sepsis/septic shock: v5.0b through v5.2a analysis results. Retrieved from https://www.qualityreportingcenter.com/event/sepsis-efforts-at-bellevue-hospital-and-sep-1-early-management-bundle-severe-sepsisseptic-shock-v5-0b-through-v5-2a-analysis-results/

QUESTIONS



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APRIL WEBCAST

<u>Creating Pockets of Excellence: Improving Sepsis Care Through</u> <u>Multi-Disciplinary Collaboration and Physician Champions</u>

April 20, 2022 11:30 am – 12:30 pm

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