

KHC Hospital Improvement Innovation Network

February 26, 2020
10 to 11 a.m. CT

HIIN Goal:
By March 2020, hospitals in the KHC HIIN will achieve 20% reduction
in all-cause harm and 12% reduction in readmissions.



623 SW 10th Ave. • Topeka, KS 66612 • (785) 235-0763 • www.khconline.org







Introductions

Special Guests

Guest Speaker



Marianne Whitney RN, CNS, MSN
Improvement Advisor
Cynosure Health
mwhitney@cynosurehealth.org

Hospital Presentation

Coffeyville Regional Medical Center

Abby Lickteig, RN, BSN
Quality Improvement Nurse
abhyo@crmcinc.org

Kristi Horton, RN
Director, ER, ICU, and Cardiac Rehabilitation
kristih@crmcinc.org

Kansas Healthcare Collaborative



Michele Clark, MBA, CPHQ, CPPS, ABC
Program Director
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Eric Cook-Wiens, MPH, CPPS
Data and Measurement Director
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Chuck Duffield, MMIS, LSS
Performance Improvement Manager
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February 26, 2020

Agenda

- Welcome, Announcements and Updates
- Featured Topic: Sepsis
 - Hospital Sharing: “Focus on the Positive”
[Coffeyville Regional Medical Center](#)
 - Cynosure Health: “Best Practices in Sepsis”
[Maryanne Whitney, Cynosure Health](#)
- Resources and Upcoming Events



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Announcements and Updates

KHC Announcements and Updates

- KHC HIIN Updates
- HQIN: Now enrolling hospitals, clinics and community partners
- KDHE Kansas Overdose to Action Project
- Milestone 16 due March 16
- Hospital HIIN recognition
- Sharing your successes



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It's a Wrap!

KHC HIIN Mini-Sprint

Faculty



Steve Tremain, MD
Physician Improvement Advisor
Cynosure Health
stremain@cynosurehealth.org

Anticoagulation Safety

13 Kansas hospitals participated

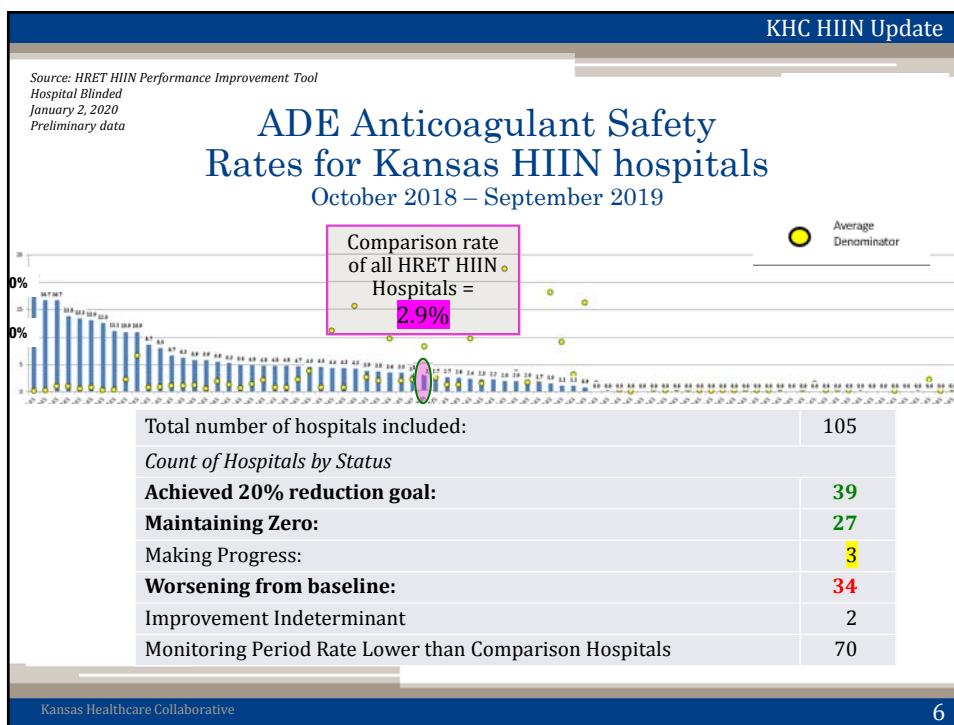
*Kick-off webinar held
Dec. 18*

*P.I. Discovery Tool completed
Jan. 22*

*Mini-Sprint webinar held
Feb. 4*

*Individualized coaching calls
held with Dr. Tremain
Feb. 11, 13 & 18*

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KHC HIIN – April 24, 2019 KHC HIIN Update

KHC HIIN Hand Hygiene Collaborative

Cohort 2

May 1, 2019 to March 31, 2020

- More than 80 Kansas hospitals participating.
- Barb DeBaun, RN, CIC, Cynosure Health, is subject matter expert and faculty.
- Shadowing opportunities are offered with Sylvia Ford at The University of Kansas Hospital.
- Short hand hygiene videos are available on KHC HIIN YouTube Channel.
- Feedback survey and final data reports for Hand Hygiene Collaborative will be distributed.



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KHC HIIN Update

Coming Soon!

A series of short, animated training videos for hospital patient and family advisors (PFAs).

1. PFAs and the changing culture of healthcare
2. Four ways PFAs can partner with their hospitals
3. Communicating effectively as a PFA
4. Presenting your patient or caregiver story to an audience

Developed for KHC HIIN hospitals by subject matter expert Allison Chrestensen, Tandem Healthcare Solutions.

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Announcements

HQIN Partners with KHC and KFMC



Kansas Foundation for Medical Care & Kansas Healthcare Collaborative are Selected to Participate in the Health Quality Innovation Network

KHC will focus on building collaborative community coalitions including hospitals, clinicians, home health agencies and community-based organizations. Support at the local level will lead to fewer hospital readmissions and improved management of chronic disease.

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KHC Update



Quality Innovation Networks-Quality Improvement Organizations (QIN-QIOs)



KHC Update

Quality Innovation Networks-Quality Improvement Organizations (QIN-QIOs)

- Previously QIN-QIO in Kansas was Great Plains QIN, working with KFMC.
- In Nov. 2019, QIN-QIO in Kansas changed to HQIN, working with KHC.



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HQIN Improvement Partners in Kansas

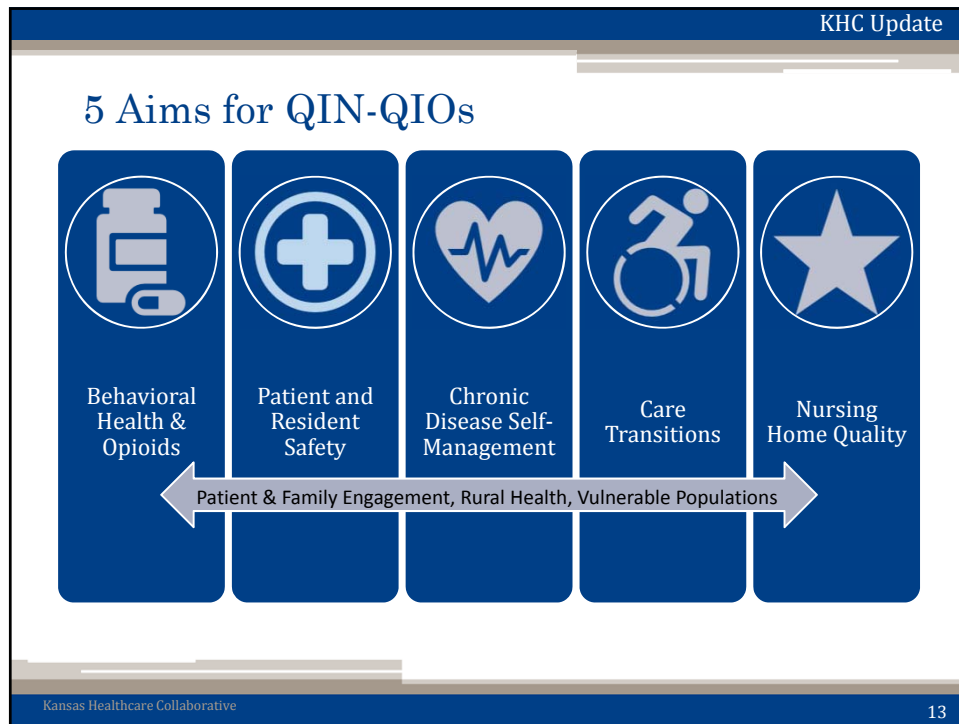


Will work with Hospitals and Health Systems, Providers, Allied Health Systems, and other Community Partners.

Will work with Nursing Homes.



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HQIN members' commitment

- Sign participation agreement.
- Monthly data reporting.
- Engagement in QI activities.
- Participate in virtual learning events.
- Share best practices with other participants.

The logos for the Kansas Healthcare Collaborative (KHC) and the Health Quality Innovation Network (HQIN) are displayed on the right side of the slide.

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Health Quality Innovation Network

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KHC Update

What HQIN members can expect

- Monthly comparative data reports.
- Timely response to calls and emails.
- Peer-to-peer learning opportunities.
- Effective tools, resources and education.
- Best practices from across the country.
- Recognition for your results.






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Enrollment Information

Sign up at no cost today:
www.KHConline.org/HQIN



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KHC Update

RFP: Kansas Overdose Data to Action Program

KHC—in partnership with KDHE—seeks applications for projects to identify provider needs related to opioid use.

Interventions will engage ED staff and community partners to promote referrals to evidence-based treatment and community resources.

Submit your proposal by March 6.

REQUEST FOR PROPOSAL

Kansas Overdose Data to Action Program
Background and Instructions
January 2020

Introduction
The Kansas Healthcare Collaborative (KHC), in partnership with the Kansas Department of Health and Environment (KDHE), is soliciting applications from hospitals and health systems interested in participating in a project to identify provider needs related to implementing evidence-based interventions and implementing evidence-based overdose protocols, policies and procedures with an emphasis on patients demonstrating signs and symptoms of substance use disorder or risk of an overdose and/or past overdose patients. Activities may include:

1. Training and education on screening, brief intervention, and referral to treatment (SBIRT).
2. Training and education on Medication Assisted Treatment (MAT) models of care that involve screening and initiation of MAT in the emergency department (ED).
3. Linking care for overdose patients to evidence-based treatment, and/or other community-based resources.

KHC expects to fund up to two pilot projects in year one (2020).

Background
The Kansas Overdose Data to Action Program is rooted in a three-year Centers for Disease Control and Prevention (CDC) cooperative agreement that began in September 2018 called "Overdose Data to Action." The CDC cooperative agreement focuses on the complex and lingering nature of the drug overdose epidemic, and highlights the need for an interdisciplinary, comprehensive, and evidence-based public health approach. KDHE is a recipient of this CDC-funded agreement and has contracted with KHC to the quality improvement organization in Kansas to support two pilot projects in 2020.

Drug overdose deaths—including those involving opioids—continue to increase in the United States. Information regarding the overdose problem, including Kansas-specific data:

- CDC general information: <https://www.cdc.gov/drugoverdose/about/index.html>
- CDC prescribing site by county: <https://www.cdc.gov/drugoverdose/prescribing/index.html>
- KDHE data resource: <https://www.kdhe.kansas.gov/overdose-data-to-action/>

Eligibility and Funding
KHC expects to fund two projects for the first grant cycle (2020). Kansas hospitals or health systems may apply for funding, not to exceed \$15,000 per project to support training, education and implementation of policies, procedures and protocols that engage ED staff and community partners in quality improvement, change concepts, policy development, implementation and evaluation to address program strategies to increasing referrals to evidence-based treatment and community resources.

Applicants will receive 25% of funds upon notification of acceptance. The remaining funds will be paid to the hospital or health system upon completion of the project. Only one application per hospital or health system will be considered.

www.KHCOnline.org

→ Download proposal form: [KHCOnline.org/opioid-rfp](https://www.KHCOnline.org/opioid-rfp)

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KHC HIIN Update

HIIN Milestone 16

January through December 2019

Data Completeness

≥80% of applicable measures
No missing months

and

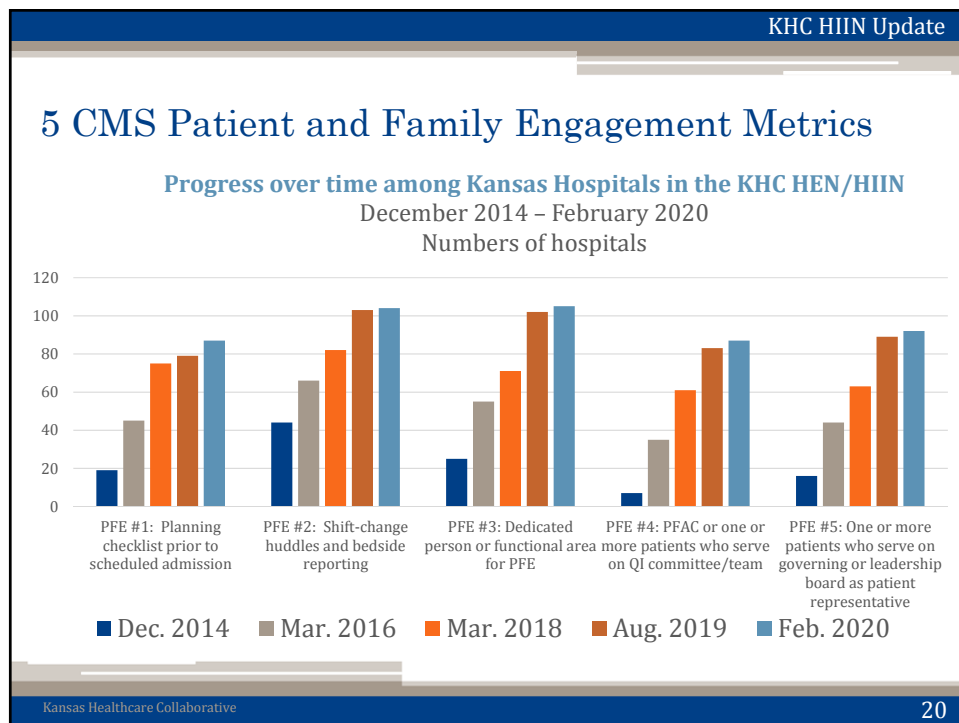
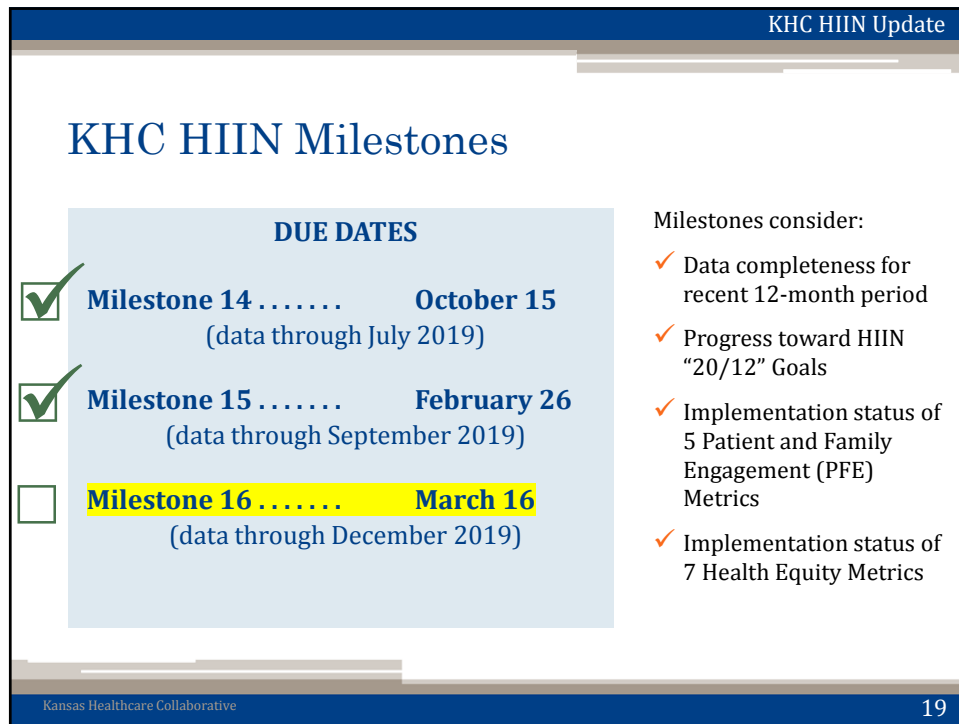
Improvement

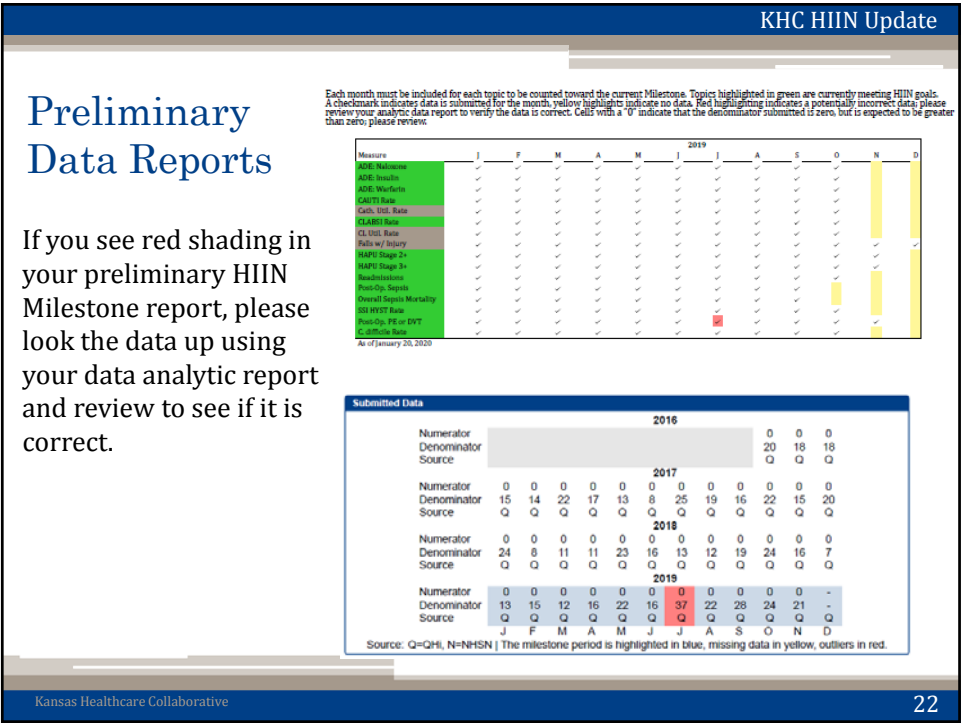
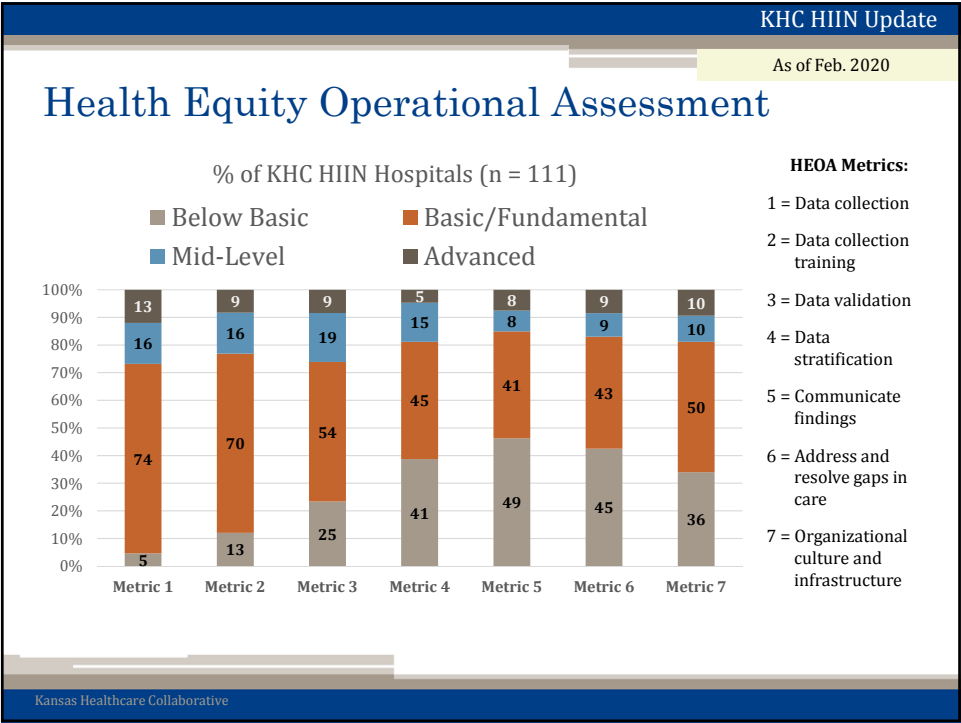
Achievement of HIIN "20/12" Goals

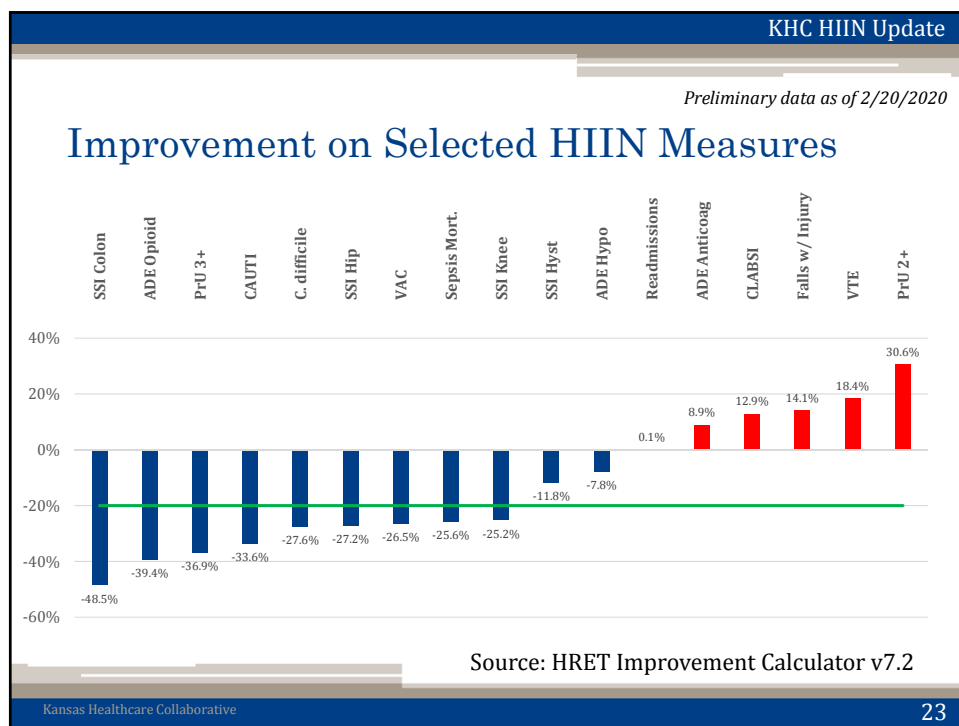
≥70% of all applicable measures
meeting improvement goals

Due Date:
March 16

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KHC HIIN Update

Coming in April!

Kansas Hospital HIIN Recognition

Following our final Milestone 16, all hospitals who are participating in HIIN will be recognized at one of three levels

- **“Accomplishment”** hospitals have worked continuously toward goals as part of the KHC HIIN.
- **“Achievement”** hospitals have achieved HIIN goals for both Data Submission and Measure Performance
- **“Highest Achievement”** hospitals have met “Achievement” criteria, *plus* have met HIIN goals in implementing one or both of the HIIN operational metrics:
 - Patient and Family Engagement
 - Health Equity Operational Assessment

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KHC HIIN Update

ANTICIPATED RECOGNITION TIMELINE:

- **March 16** – Milestone 16 deadline
- **March 31** – Final KHC HIIN data analytic reports to Kansas hospitals
- **April** – Recognition and photos at KHA District Meetings, April 7-16. Certificates mailed to those unable to attend. News release template and logo emailed to hospitals.
- **April 22** – Recognition of hospitals, including those of highest achievement and with distinction during HIIN webinar
- **Ongoing** – Kansas hospital success stories developed and shared

Coming in April!
**Kansas
Hospital HIIN
Recognition**



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KHC HIIN Update

Let's Finish HIIN Strong!



Download success story template from pod below.
Contact Michele Clark or Phil Cauthon at KHC when you're ready to begin.

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Hospital Sharing

Spotlight on Success

Sepsis Super Heroes *Communicating the Positive*



**Coffeyville Regional
Medical Center**
www.crmcinc.org
Your partner in health.

Abby Lickteig, RN, BSN
Quality Improvement Nurse
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Kristi Horton, RN
Director, ER, ICU, and Cardiac
Rehabilitation
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Coffeyville Regional Medical Center

About Us






- 501(c)(3) Municipal, non-profit hospital licensed for 47 beds
- We serve over 45,000 residents from Montgomery, Chautauqua, Labette, Allen, Neosho, and Wilson Counties in Kansas, as well as Nowata, and Craig counties from Oklahoma.
- Established in 1949 and celebrated 70 years this past year.
- Population of Coffeyville: 9,481 (based on 2017 data)
- Population of Montgomery County: 32,555 (based on 2017 Data)

CRMC QUICK FACTS

- Annual Admissions: Nearly 2,500
- Births: 300
- Surgeries: Nearly 3,000
- ER Visits: Nearly 10,000
- Home Health Visits: Nearly 8,000

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Our goal

- By January 1, 2020, Coffeyville Regional Medical Center will improve adherence to the 3-hour treatment bundle guidelines, specifically adherence to administration of broad spectrum IV antibiotics, therefore improving the overall sepsis core measure compliance rate.
- CRMC will aim to meet all 3-hour treatment bundle requirements in 100% of patients who present with severe sepsis/septic shock.

Why we targeted this topic

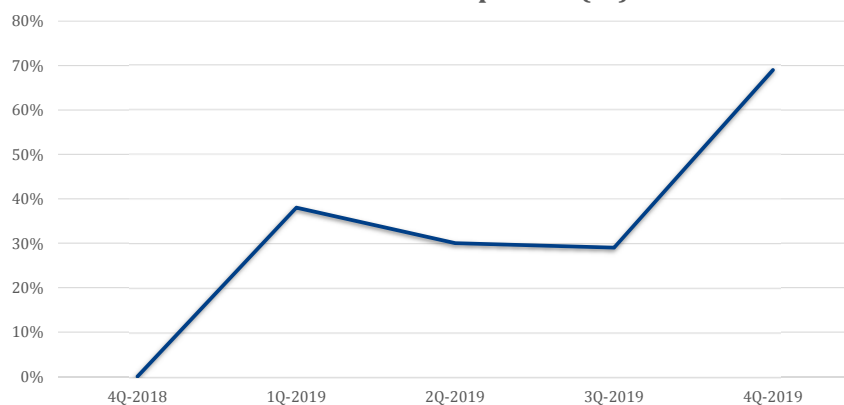
We identified a gap regarding early identification of SIRS criteria and organ dysfunction and implementing appropriate CMS sepsis core measure interventions, specifically nurse driven interventions.

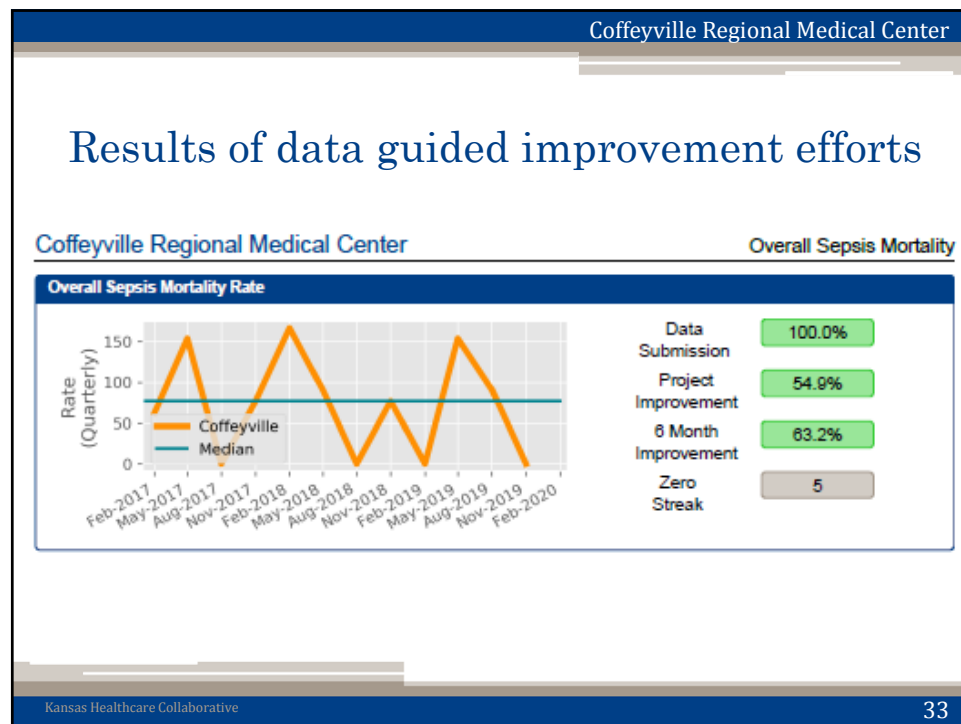
How data guided improvement efforts

- Data review was a key driver in our work.
 - Through data review we identified that for the first quarter of 2019, 3-hour treatment bundle compliance was 38%.
 - The highest reason for non-compliance being timely administration of the IV antibiotic.
- Through further chart review and data collection we were able to determine that the antibiotic selection was correct and the order was entered timely. Non-compliance was occurring with administering the antibiotic timely.

Results of data guided improvement efforts


SEP-1 Bundle Compliance (%)





Coffeyville Regional Medical Center

Key elements to success



- **Sepsis Superhero!**
 - Historically, we communicated target areas for improvement to the nursing staff, such as antibiotic administration not being initiated within the 3-hour window.
 - We chose to embrace an alternative approach, recognizing and acknowledging the positive!
 - Positive reinforcement messages were sent to staff when all measures were met in addition to the reviews identifying measures not met. Staff response validated our choice.
- **RN Sepsis Communication Tool.**
 - This worksheet was beneficial in identifying Sepsis patients earlier, implementing interventions quicker and helping to insure we completed all measures.

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Coffeyville Regional Medical Center

RN Sepsis Communication Tool

Patient Sticker

TIME ZERO:
(orange time)

PATIENT WT:
If not weight said, note in chart

Does the patient have a known, suspected or likely source of infection?
☐ Suspected infection
Does the patient have two or more SIRS criteria?
☐ T: >100.4°F or <36.5°F
☐ HR: >90
☐ RR: >20/min
☐ WBC: >12,000 or <4,000 or >10% bands
Does this patient have one or more organ dysfunctions?
☐ Lactate >2mmol/L ☐ SBP <90 ☐ MAP <65 ☐ < urine output ☐ respiratory failure ☐ change in LOC

Items to be complete within 3hrs from TIME ZERO: **TIME:**
☐ Initial lactate acid (time: _____)
☐ Blood Cultures before antibiotics (time: _____)
☐ Broad spectrum antibiotics (time: _____) *monotherapy 1st!!
☐ Fluid bolus administration: 30ml/kg (total input: _____) Remember completion time and I&Os

4hrs from TIME ZERO: **TIME:**
☐ Obtain 2nd lactate acid be sure it is drawn after fluid bolus is complete

Items to be complete within 6hrs from TIME ZERO: **TIME:**
☐ Vasopressors if hypotensive (name: _____) *after fluid bolus!!!
☐ Repeat focused exam by MD needs to include reassessment of perfusion status

*If form is not completed in ED, send with patient to ICU for completion
 *Return completed forms to Kristi Horton (mailbox)

This worksheet was instrumental in our success to identify Sepsis patients and implement interventions as quick as possible.

- We designed our Sepsis Communication Tool based on another model that we adjusted to our specific needs.
- Any patient suspected of Sepsis, initiates the use of the worksheet. The idea is to help the care team stay on track with Sepsis protocol and not lose sight of timed interventions while providing care to other patients.
- Nurses are able to identify Sepsis patients earlier and alert the Physician.
- Orders are entered quicker and interventions started sooner.

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Tests of change and what we learned

- One of the biggest lessons learned is, don't hesitate to re-educate.
- Sometimes you may feel that sending the message more than once is redundant, but in reality, the staff hungers for more education.
- They want to know current evidenced based practices, and they want the tools and resources to ensure they are providing the patient what is needed for the best possible outcome.

Barriers and how we resolved them

- Analyzation of Sepsis guidelines, reviewing patient charts and determining where we had opportunities for improvement.
 - We embraced the fact, there was more we could do to provide our patients the best possible outcome.
- Antibiotics were not always readily available.
 - Pharmacy added what was needed to the ER Omnicell.
- Lack of communication between Physician and Nurse slowed the implementation process.
 - We encourage the care team to discuss the plan of care.

Coffeyville Regional Medical Center

Barriers and how we resolved them

- Orders were not always entered into the chart in a timely manner.
- The Sepsis Communication worksheet was not being used consistently.
 - Department meetings were held to provide education. Specifically the link between early intervention, mortality rates and the ongoing quality of life for the patient.
- Physicians struggled with the fluid bolus, due to the large amounts. Concern for underlying conditions fed their hesitance.
 - Physicians have proposed using the accepted ideal weight for patients that would receive very large fluid boluses.

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Coffeyville Regional Medical Center

Where we are now... Where we are going...

- We continue to struggle with 30ml/kg fluid boluses.
 - We are hopeful that through continued education we will overcome this hurdle.
- Reviewing the data collected with the Sepsis Communication Tool, we find a direct correlation to an increasing pass rate with the Sepsis Core Measure.
 - We will continue to use the Sepsis worksheet.
- We have had months of 100% compliance and months we are 50% compliant.
 - We continue to analyze our data, identify points of concern and educate 1:1 and in group settings.

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Recommendations

- Begin with a structured plan. Physician and nurse involvement is key.
- Don't hesitate to adjust your process based on your data collection and patient outcomes.
- Provide feedback in a timely manner.
- Education and reeducation is important.
 - **Determining the education method that works best for your facility is vital.**
- You will face challenges and frustrations, but you will also feel accomplished and satisfied on your road to success.



KANSAS HEALTHCARE COLLABORATIVE

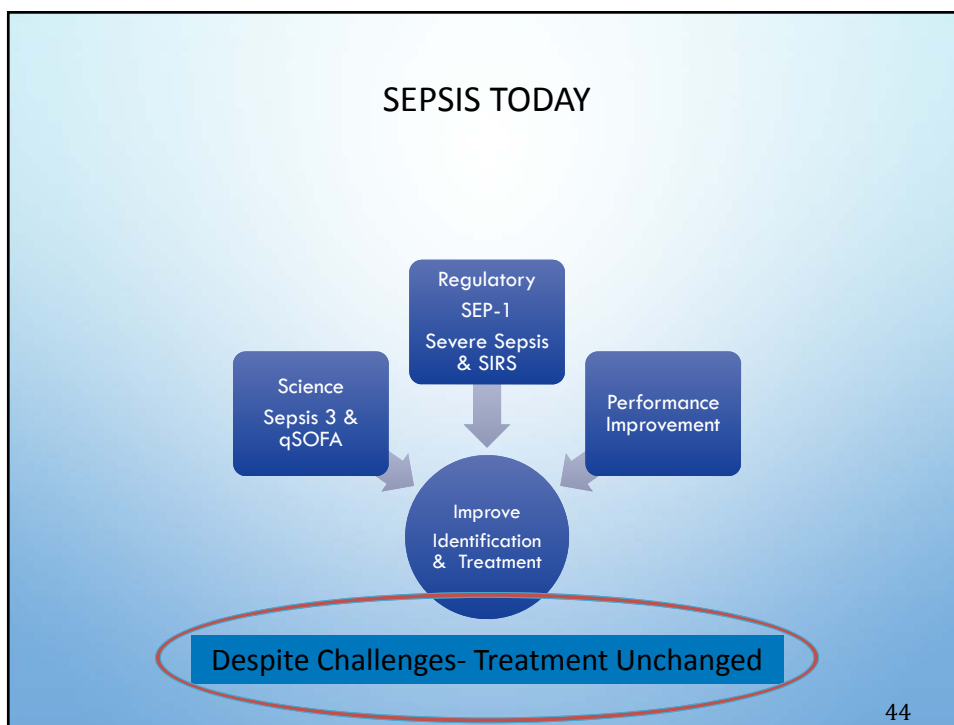
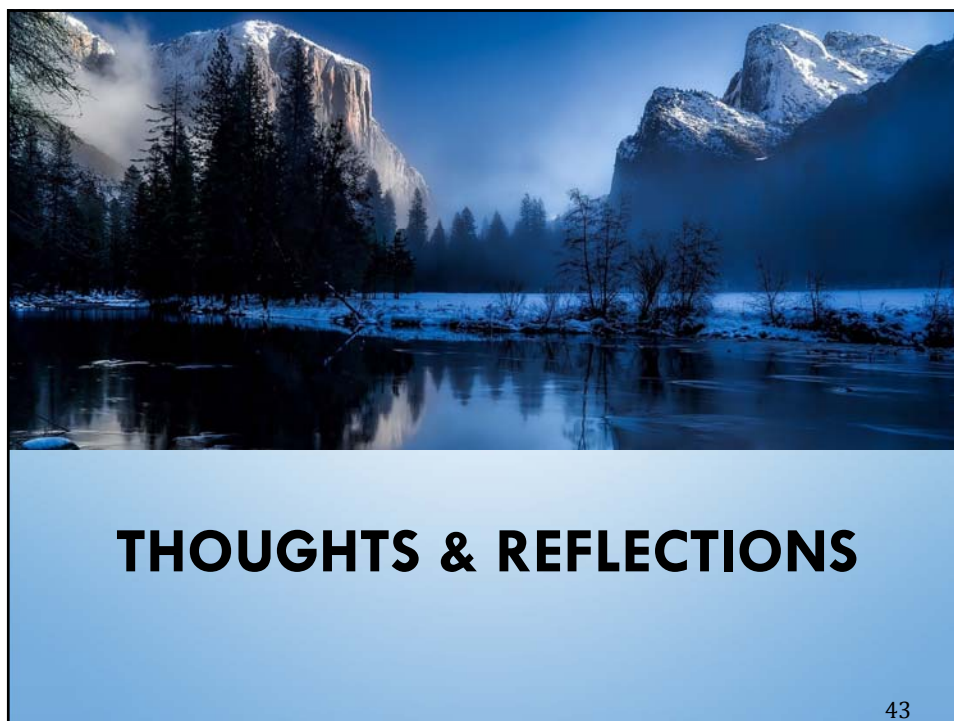
BEST PRACTICES IN SEPSIS


FEBRUARY 26TH

MARYANNE WHITNEY, RN, CNS, MSN

IMPROVEMENT ADVISOR,

CYNOSURE HEALTH





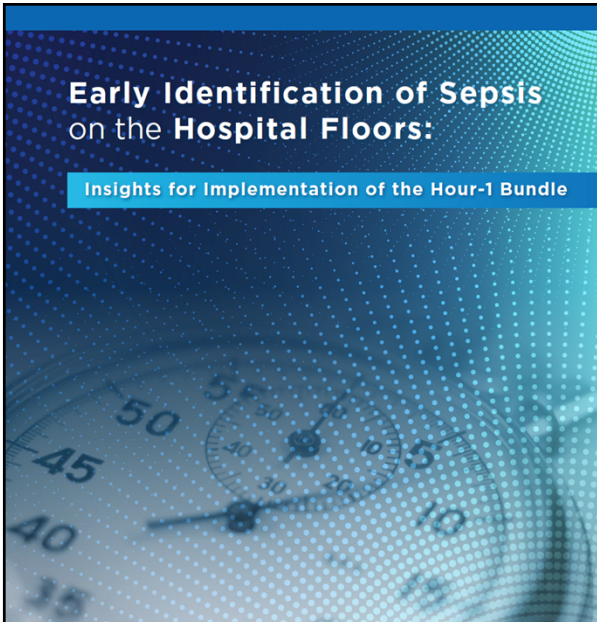
TIPS FOR INPATIENT SEPSIS DETECTION

- SCREEN FOR SEPSIS EVERY SHIFT AND AT TRANSFERS
- USE THE EMR
- DEVELOP ALERTS
- OPTIMIZE RAPID RESPONSE TEAM INVOLVEMENT

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Early Identification of Sepsis on the Hospital Floors:

Insights for Implementation of the Hour-1 Bundle



Surviving Sepsis Campaign

Society of Critical Care Medicine
The Intensive Care Professionals

TOOL KIT

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OVERHEAD ALERTS!!!

- MOBILIZE RESOURCES
 - WHAT ARE THEY?
- MOBILIZE EXPERTS
 - WHO ARE THEY?
- CONSENSUS IN DIAGNOSIS
 - ALLOW FOR CLINICAL DECISIONS
 - TIME SENSITIVE
 - LEVEL OF CARE
- CREATE ACTION
 - ANTIBIOTICS
 - LABS
 - FLUIDS
- RRT
 - CAN THEY BE INVOLVED?



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TIME SENSITIVE DIAGNOSES: CHANGING THE PARADIGM OF PRACTICE

AMI



Stroke



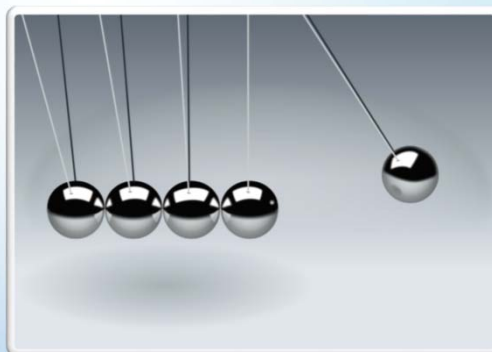
Trauma



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CREATE ACTION: BUNDLE IMPLEMENTATION

- IDENTIFY CLEAR AND CONCISE ACTION FOR POSITIVE SEPSIS SCREEN
- WHO DOES WHAT? BY WHEN?
- BUILD IN CONCURRENT REVIEW



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SEPSIS 2018 UPDATE

IMPORTANT CHANGE FOR 2018!

COMBINATION OF THE 3 AND 6 HOUR
SEPSIS TREATMENT BUNDLES INTO A SINGLE

“HOUR 1 BUNDLE”

**STRIVING FOR IMMEDIATE
RESUSCITATION AND MANAGEMENT**

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HOUR 1 BUNDLE

| | |
|------------|--|
| Measure | Measure lactate • Re-measure if initial lactate is >2mmol/L |
| Obtain | Obtain blood cultures • prior to administration of antibiotics. |
| Administer | Administer broad spectrum antibiotics |
| Begin | Begin rapid administration of fluid • 30ml/kg crystalloids IBW |
| Apply | Apply vasopressors during or after fluid resuscitation to maintain MAP of 65mmHG on |
| Time | * Time zero or time of presentation is defined as the time of triage in the ED or the earliest chart annotation consistent with all the elements of sepsis (formerly known as severe sepsis) or septic shock |

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Hour-1 Bundle

Surviving Sepsis Campaign

Initial Resuscitation for Sepsis and Septic Shock (begin immediately):

1 Time Zero/Time Presentation
"Time zero" or "time of presentation" is defined as the time of triage in the Emergency Department or, if presenting from another care venue, from the earliest chart annotation consistent with all elements of sepsis (formerly severe sepsis) or septic shock ascertained through chart review.

2 Measure lactate level.
Re-measure lactate if initial lactate elevated (> 2mmol/L).

3 Obtain blood cultures before administering antibiotics.

4 Administer broad-spectrum antibiotics.

5 Begin rapid administration of 30 ml/kg crystalloid for hypotension or lactate > 4 mmol/L.

6 Apply vasopressors if hypotensive during or after fluid resuscitation to maintain a mean arterial pressure ≥ 65 mm Hg.

Bundle: SurvivingSepsis.org/Bundle Complete Guidelines: SurvivingSepsis.org/Guidelines

©2016 Society of Critical Care Medicine, European Society of Intensive Care Medicine

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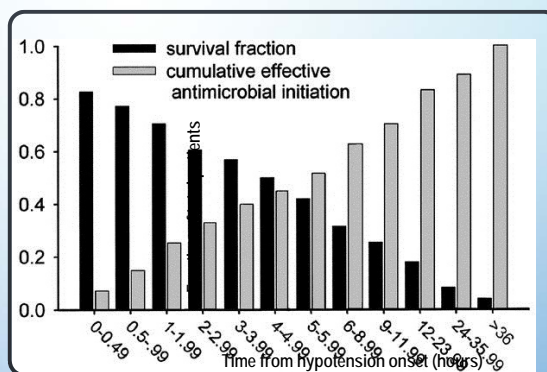
POSITIVE SEPSIS SCREEN: 3HR BUNDLE (TO BE COMPLETED WITHIN 3 HOURS OF PRESENTATION)

- ✓ Measure lactate level
- 📌 Obtain blood cultures prior to administration of antibiotics
- 💊 Administer broad spectrum antibiotics
- 💧 Administer 30ml/kg crystalloid for hypotension or lactate $\geq 4\text{mmol/L}$

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ANTIBIOTIC TIMING IN SEPSIS

- SURVIVING SEPSIS CAMPAIGN
 - GRADE 1B: 1ST HOUR RECOGNITION OF SEPTIC SHOCK
 - GRADE 1C: 1ST HOUR RECOGNITION OF SEVERE SEPSIS
 - A SEPSIS TREATMENT BUNDLE SHOULD BE INSTITUTED WITHIN 3 HOURS OF SEPSIS RECOGNITION
- EVERY 1 HOUR DELAY IN ANTIMICROBIALS \rightarrow 7.6% INCREASED MORTALITY
 - (SEPTIC SHOCK PATIENTS)



Kumar et al., Crit Care Med
2006;34:1589-96

Crit Care Med 2013;41:580-637

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**30ML/KG OF
FLUIDS?
WHOA...WAIT A
MINUTE....**

- THAT'S A LOT OF FLUID FOR SOME FOLKS
 - *PHYSICIANS OR PATIENTS?!*
- COMMON POINT OF PHYSICIAN RESISTANCE
- WHY 30ML/KG CRYSTALLOID IS REASONABLE IN SEPSIS



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DOES EARLY AGGRESSIVE THERAPY MAKE A DIFFERENCE?

YES

ALL PATIENTS WITH SEVERE SEPSIS NEED FLUID BECAUSE.....

1. VASCULAR VOLUME IS LOST INTO INTERSTITIAL SPACE DO TO DIFFUSE CAPILLARY LEAKING FROM CYTOKINE RELEASE
2. BOTH VENOUS AND ARTERIOLAR TONE IS REDUCED & BLOOD VOLUME OCCUPIES A LARGER INTRAVASCULAR SPACE THAN NORMAL
3. MANY PATIENTS ALSO HAVE GI AND SKIN LOSSES

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SUPPORTING GUIDANCE

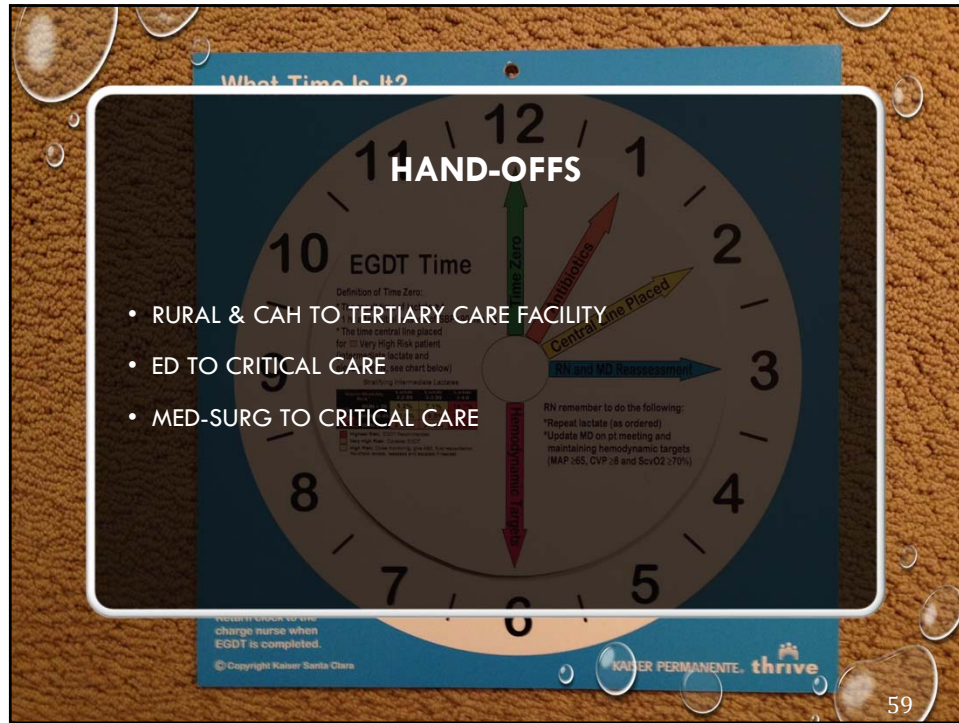
- COACHING AND LITERATURE
 - LIU ET AL (ATTACHED, 2016)
 - THESE PATIENTS ARE HERE FOR SEPSIS, NOT FOR THEIR UNDERLYING CO-MORBIDITY
 - PATIENTS WHO BEST WERE CHF AND RF PATIENTS WHO GOT FLUIDS PER RECOMMENDATIONS
 - SEYMOUR ET AL (ATTACHED, 2017)
 - FLUID RESUSCITATION SAVES LIVES
 - CAN IT BE GIVEN OVER A LONGER PERIOD TIME IN CLINICALLY SENSITIVE PATIENTS???

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6 HOUR BUNDLE
PERSISTENT HYPOTENSION OR LACTATE >2MMOL/L

| | | |
|---|---|---|
|  | Apply vasopressors | For hypotension that does not respond to initial fluid resuscitation - to maintain a mean arterial pressure (MAP) ≥ 65 mmHg - Norepinephrine |
|  | Re-assess volume status and tissue perfusion and document findings | In the event of persistent hypotension after initial fluid administration (MAP < 65 mmHg) or if initial lactate was ≥ 4 mmol/L |
|  | Re-measure lactate if initial lactate elevated | Guiding resuscitation to normalize lactate in patients with elevated lactate levels as a marker of tissue hypoperfusion |

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Patient Sticker

TIME ZERO:
(Triage time)

PATIENT WT:
(If ideal weight used, note in chart)

Sepsis – Does the patient have Two of the following plus suspected infection?

☐ Suspected infection
☐ T: >100.9F or <96.8F
☐ HR: >90
☐ RR: >20/min

Severe Sepsis

☐ WBC: >12,000 or <4,000 or >10% bands
☐ Lactic > 2mmol/L ☐ SBP < 90 ☐ MAP < 65 ☐ urine output ☐ respiratory failure

Items to be complete within 3hrs from TIME ZERO:

☐ Initial lactic acid (time:) **TIME:**

☐ Blood Cultures before antibiotics (time:)

☐ Broad spectrum antibiotics (time:) *shortest 1st!!

☐ Fluid bolus administration: 30ml/kg (total input:) Remember completion time and I&Os

4hrs from TIME ZERO:

☐ Obtain 2nd lactic acid be sure it is drawn after fluid bolus is complete **TIME:**

Items to be complete within 6hrs from TIME ZERO:

☐ Vasopressors if hypotensive (name:) *after fluid bolus!!!

☐ Repeat focused exam by MD needs to include reassessment of perfusion status **TIME:**

*If form not complete in ED, send to floor with pt to be completed
 *Return form to ED manager upon completion.

TOOLS FOR SEAMLESS CARE

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PLEASE HAND TO RECEIVING RN

What Time Is It? It's EGD Time!

Screen for Sepsis:
2 SIRS and suspected/known infection
Temp: <96.8(36.0) or >100.4(38) RR>20
WBC >12K or <4K or 10%
Give aggressive fluids:
Enter Weight in kg here

Choose one of these 3 items.

Place Patient Sticker Here

CAL PATIENTS need 40ml/kg!!!
In fluids: Max fluids:

☐ Lactate ≥4: (Stat DRAW time +1 hr or RESULT time of regular lab draw)
☐ SBP < 90 for more than 1 hour: 1st episode of hypotension +1 hr
☐ Lactate/BUN Mortality Risk >15%: 1st CVP/ScvO2 documented in HC

Time Zero (TZ) is: All other time targets will be calculated for you!
Then print form, check items completed, send w/patient

Initial 6hr Bundle Elements
ABX due by: Document on MAR!
Central Line placed by: Document CVP and/or ScvO2/VBG
Huddle with MD at: Update MD re: CURRENT hemodynamic readings compared to listed targets

Reminder About Hemodynamic Targets and EGD Protocol
MAP should be: ≥65 Document CVP Q 30 mins until CVP ≥ 8, then Q1 hr
CVP should be: ≥8 If CVP not at target, start boluses per protocol
Document CVP readings at these times

ScvO2 should be: ≥70% Document ScvO2 Q 30mins until ScvO2 ≥ 7%, then Q1 hr
If ScvO2 not at target, start Dobutamine
Document ScvO2 readings at these times

End of 6hrs of EGD is at:

Sepsis Screening & Transfer Tool

Does the patient meet 2 or more of the following SIRS?

| Value | Time | Site |
|--------------------------------------|------|------|
| Temperature >100.4 or <96.8 | | |
| Heart rate > 90 bpm | | |
| Respiratory rate >20 bpm | | |
| WBC >12,000 or <4,000 or >10% bands | | |
| Altered mental status (recent onset) | | |

Does the patient have any of the following documented or suspected infections?

| Value | Time | Site |
|--|------|------|
| pneumonia | | |
| UTI | | |
| wound | | |
| infection | | |
| cellulitis | | |
| decubitus | | |
| ulcer | | |
| shortness of breath | | |
| purulent wound drainage | | |
| urinary | | |
| pain/frequency | | |
| cough | | |
| abdominal pain/distension/firmness | | |
| stiff neck | | |
| nursing home/LTAC | | |
| recent surgery | | |
| immunocompromised | | |
| indwelling device | | |
| currently on antibiotics | | |
| antibiotic use or reports of infection within the last 30 days | | |

Within 5 minutes of positive screen

Do not delay antibiotic administration if unable to obtain timely blood cultures

Does the patient have one or more of the following organ dysfunctions?

| Value | Time | Site |
|---------------------------------------|------|------|
| Synthetic blood pressure <90 | | |
| Mean Arterial Pressure <65 | | |
| SBP decrease > 40 mm Hg from baseline | | |
| Creatinine >2 | | |
| Platelets <100,000 | | |
| aPTT >40 seconds | | |
| INR >1.5 | | |
| bilirubin >2 | | |
| lactate >2 mmol/l | | |

Ensure patient has 2 large bore IVs re-check vitals q5-15 minutes

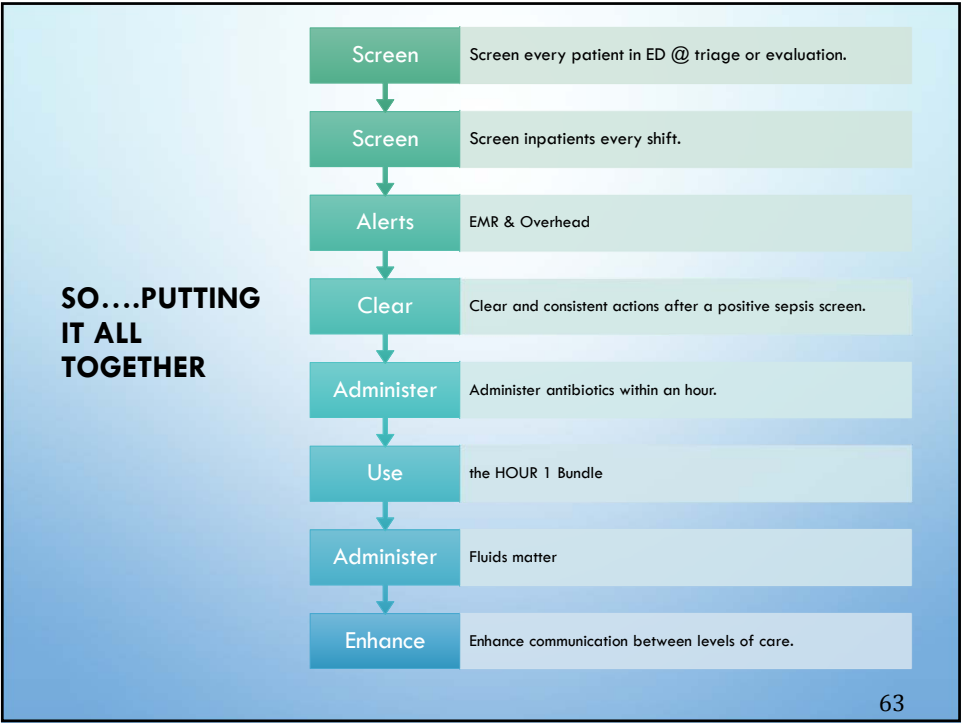
Time Zero for Sepsis Shock

Transport

Feedback (to be completed by receiving facility)

Fax/scan to receiving facility @ time of transfer and send hard copy with patient

SNAP LEARNINGS



WHAT'S A DISCOVERY TOOL?

-  A list of best practices (structures and processes) currently known
-  Allows you to compare your organization's practices to with the recommended ones to discover the opportunities for focus
-  Assists in identifying the areas where you need to implement, spread, or improve

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HOW TO USE A DISCOVERY TOOL

| WHAT TO DO | WHAT NOT TO DO |
|--|--|
| • UNDERSTAND THE SPIRIT | • GET CAUGHT UP IN THE PHRASING |
| • REMEMBER IT IS TO HELP YOU | • TRY TO GET THE BEST SCORE |
| • KNOW THAT IT IS NOT A TEST | • DO IT ALONE |
| • KNOW THAT IT WILL NOT BE GRADED | • BASE YOUR ANSWERS ON YOUR POLICIES |
| • INVOLVE KEY PEOPLE WHO ARE KNOWLEDGEABLE ABOUT WHAT REALLY HAPPENS | • CONSIDER WHAT HAPPENS ONLY ON WEEKDAYS (DAY SHIFT) |
| • LOOK AT YOUR PROCESSES | • LOOK ONLY AT YOUR OUTCOMES |

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SEPSIS DISCOVERY TOOL

Note: Do NOT spend more than 20-30 minutes per chart!

Instructions: (1) Enter Y or N in each box for each chart. Then identify which rows have the most "N's" to find process improvement opportunities. (2) The processes with the most common failures could be a priority focus.

| PROCESS | Chart # | Chart # | Chart # | Chart # | Chart # | Chart # | Chart # | Chart # | Chart # |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Screening | | | | | | | | | |
| Patient was screened for sepsis within 30 minutes of arrival to the emergency department? | | | | | | | | | |
| Inpatient sepsis screen completed at least once per shift? (N/A once sepsis identified in ED or inpatient unit) | | | | | | | | | |
| If sepsis screen is positive, sepsis alert activated overhead with positive sepsis screen? (Y, N, N/A) | | | | | | | | | |
| 3 hour bundle compliance (green colored cells indicate HOUR ONE BUNDLE) | | | | | | | | | |
| Blood cultures drawn within 30 minutes of positive sepsis screen AND prior to antibiotic administration? | | | | | | | | | |
| Serum lactate drawn and resulted within 60 minutes of positive sepsis screen? | | | | | | | | | |
| Broad spectrum antibiotics initiated within 60 minutes of positive sepsis screen? | | | | | | | | | |
| Fluid 30ml/kg initiated within 60 minutes of positive sepsis AND completed within 180 minutes of positive sepsis screen for pts with hypotension SBP < 90 and or lactate > 2mmol/dL (Y, N, N/A) | | | | | | | | | |
| 6 Hour Bundle Compliance | | | | | | | | | |
| Vasopressors administered for MAP < 65mmHg? | | | | | | | | | |
| Repeat serum lactate drawn & resulted within 6 hours after initial elevated lactate draw? | | | | | | | | | |
| Fluid reassessment done at the end of the fluid resuscitation? | | | | | | | | | |
| Pt Information | | | | | | | | | |
| Age Greater than 65 years | | | | | | | | | |
| # of SIRS in ED if pt came thru ED | | | | | | | | | |
| # of SIRS score if positive inpatient sepsis screen | | | | | | | | | |
| qSOFA Score in ED if pt came thru ED? | | | | | | | | | |
| qSOFA score if positive inpatient sepsis screen | | | | | | | | | |

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MOVING TO ACTION...



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START WITH ONE

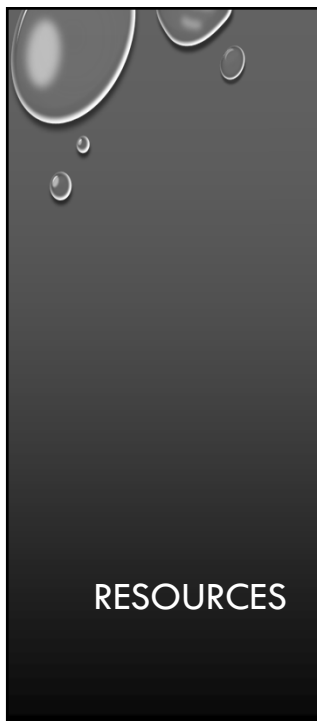
- Not an entire department

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QUESTIONS & PLANNING

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RESOURCES

- SCCM SURVIVING SEPSIS CAMPAIGN
- PROCESS INVESTIGATORS, YEALY DM, KELLUM JA, JUANG DT, ET AL. A RANDOMIZED TRIAL OF PROTOCOL-BASED CARE FOR EARLY SEPTIC SHOCK. N ENGL J MED 2014; 370(18):1683-1693.
- THE ARISE INVESTIGATORS AND THE ANZICS CLINICAL TRIALS GROUP. GOAL-DIRECTED RESUSCITATION FOR PATIENTS WITH EARLY SEPTIC SHOCK. N ENGL J MED 2014; 371:1496-1506.
- MOUNCEY PR, OSBORN TM, POWER GS, ET AL FOR THE PROMISE TRIAL INVESTIGATORS. TRIAL OF EARLY, GOAL-DIRECTED RESUSCITATION FOR SEPTIC SHOCK. N ENGL J MED 2015; DOI: 10.1056/NEJMOA1500896.
- RIVERS E, NGUYEN B, HAVSTAD S, ET AL. EARLY GOAL-DIRECTED THERAPY IN THE TREATMENT OF SEVERE SEPSIS AND SEPTIC SHOCK. N ENGL J MED 2001;345:1368-137
- [HTTP://WWW.SCCM.ORG/RESEARCH/QUALITY/PAGES/SEPSIS-DEFINITIONS.ASPX](http://www.sccm.org/research/quality/pages/sepsis-definitions.aspx)
- LIU VX, MOREHOUSE JW, MARELICH GP, SOULE J, RUSSELL T, SKEATH M, ADAMS C, ESCOBAR GJ, WHIPPY A. MULTICENTER IMPLEMENTATION OF A TREATMENT BUNDLE FOR SEPSIS PATIENTS WITH INTERMEDIATE LACTATE VALUES. AM J RESPIR CRIT CARE MED 2015.

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RESOURCES

- OUELLETTE, D. R., & SHAH, S. Z. (2014). COMPARISON OF OUTCOMES FROM SEPSIS BETWEEN PATIENTS WITH AND WITHOUT PRE-EXISTING LEFT VENTRICULAR DYSFUNCTION: A CASE-CONTROL ANALYSIS. *CRITICAL CARE*, 18(2), R79. [HTTP://DOI.ORG/10.1186/CC13840](http://DOI.ORG/10.1186/CC13840)
- [HTTP://QSOFA.ORG/](http://QSOFA.ORG/)
- SINGER M, DEUTSCHMAN CS, SEYMOUR CW, ET AL: [THE SEPSIS DEFINITIONS TASK FORCE THE THIRD INTERNATIONAL CONSENSUS DEFINITIONS FOR SEPSIS AND SEPTIC SHOCK \(SEPSIS-3\)](#). (*JAMA*, FEBRUARY 23, 2016, VOL 315, NO. 8).
- SHANKAR-HARI M, PHILLIPS G, LEVY ML, ET AL: [ASSESSMENT OF DEFINITION AND CLINICAL CRITERIA FOR SEPTIC SHOCK: FOR THE THIRD INTERNATIONAL CONSENSUS DEFINITIONS FOR SEPSIS AND SEPTIC SHOCK \(SEPSIS-3\)](#). (*JAMA*, FEBRUARY 23, 2016, VOL 315, NO. 8).
- SEYMOUR CW, LIU V, IWASHYNA TJ, ET AL: [ASSESSMENT OF CLINICAL CRITERIA FOR SEPSIS: FOR THE THIRD INTERNATIONAL CONSENSUS DEFINITIONS FOR SEPSIS AND SEPTIC SHOCK \(SEPSIS-3\)](#). (*JAMA*, FEBRUARY 23, 2016, VOL 315, NO. 8).

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Resources and Upcoming Events

Resources and Upcoming Events

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HRET HIIN QIN-tastic Webinar

HRET HIIN >>>>>>>>

UPCOMING WEBINARS

A QIN-TASTIC WEBINAR: Mobile Integrated Healthcare – Collaborating to Create Social Value and Economic Development

Wednesday, February 26, 2020, 1:30 – 2:30 pm CST >> [REGISTER HERE](#)

A QIN-TASTIC WEBINAR: Working with Super-utilizer Patients to Save Money and Improve Outcomes

Tuesday, March 3, 2020, 12:00 – 1:00 pm CST >> [REGISTER HERE](#)

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Upcoming Events and Resources

Upcoming KHC HIIN Webinars

Next KHC HIIN Webinar

Mar 25, 2020 | 10:00 to 11:00 am

- Register Here: <https://khconline.adobeconnect.com/khc-hiin-03-25-20/event/registration.html>

Previous HRET & KHC HIIN Webinars

- In case you missed any of the KHC HIIN or HRET HIIN events, here are the links to access the archives:
 - [KHC HIIN education archive](#) (chronological order)
 - [HRET HIIN education archive](#) (organized by topics)

Resources

- Kansas Healthcare Collaborative
www.khconline.org
- AHA/HRET Hospital Improvement Innovation Network
www.hret-hiin.org
- CMS Partnership for Patients
<https://partnershipforpatients.cms.gov/>
- Partnership for Patients Healthcare Communities
<https://www.healthcarecommunities.org/CommunityHighlights/PartnershipforPatients>

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Webinar Feedback

Please provide feedback to this webinar.
Let us know your next steps.

- <https://www.surveymonkey.com/r/HIIN-Webinar-02262020>

We welcome your ideas for future topics!!

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Executive Leadership



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Allison Peterson DeGroff
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Karen Braman
Senior Director

Hospital-led initiatives



Michele Clark
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Jill Daughhettee
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Rebecca Thurman
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and more at:
KHOnline.org/staff

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