

Improving Sepsis Care

Collaborations improving the delivery of care for patients across the continuum

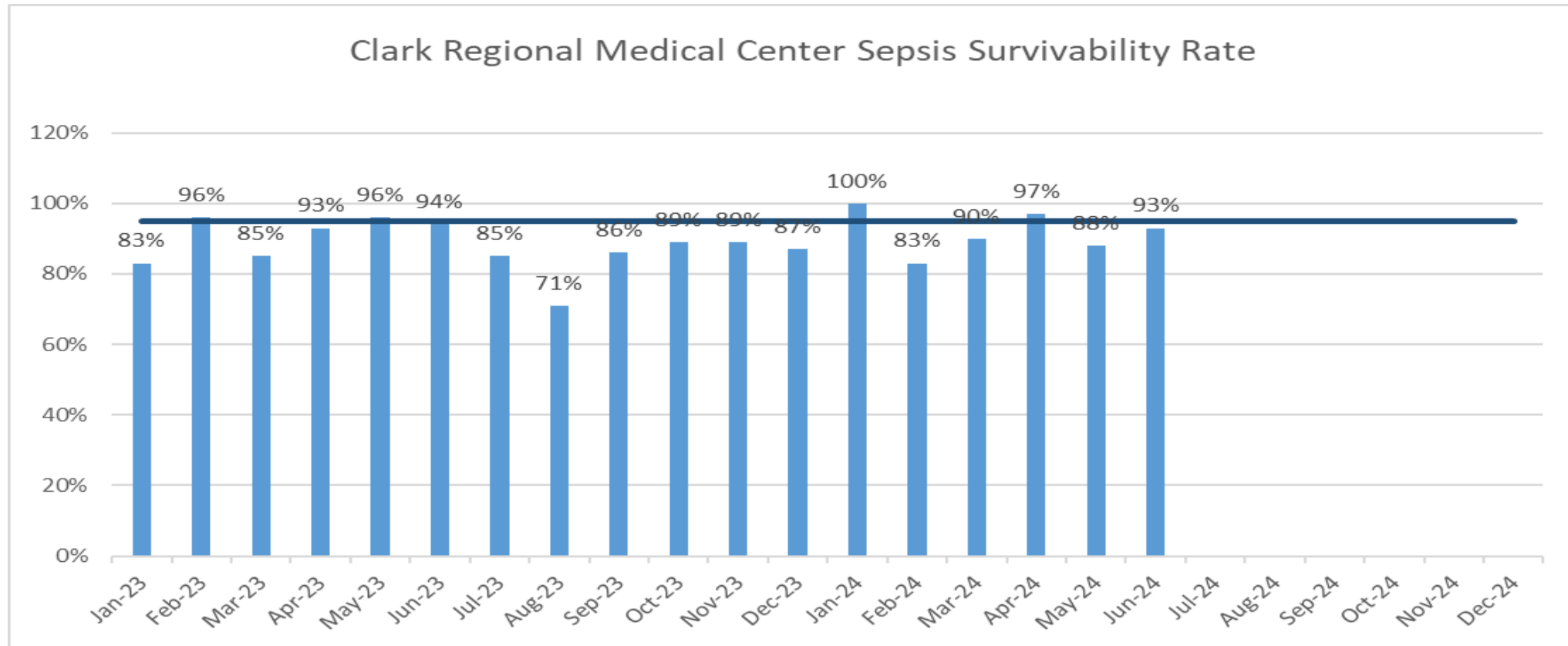


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Improving Sepsis Care: Data Story for Clark Regional Medical Center

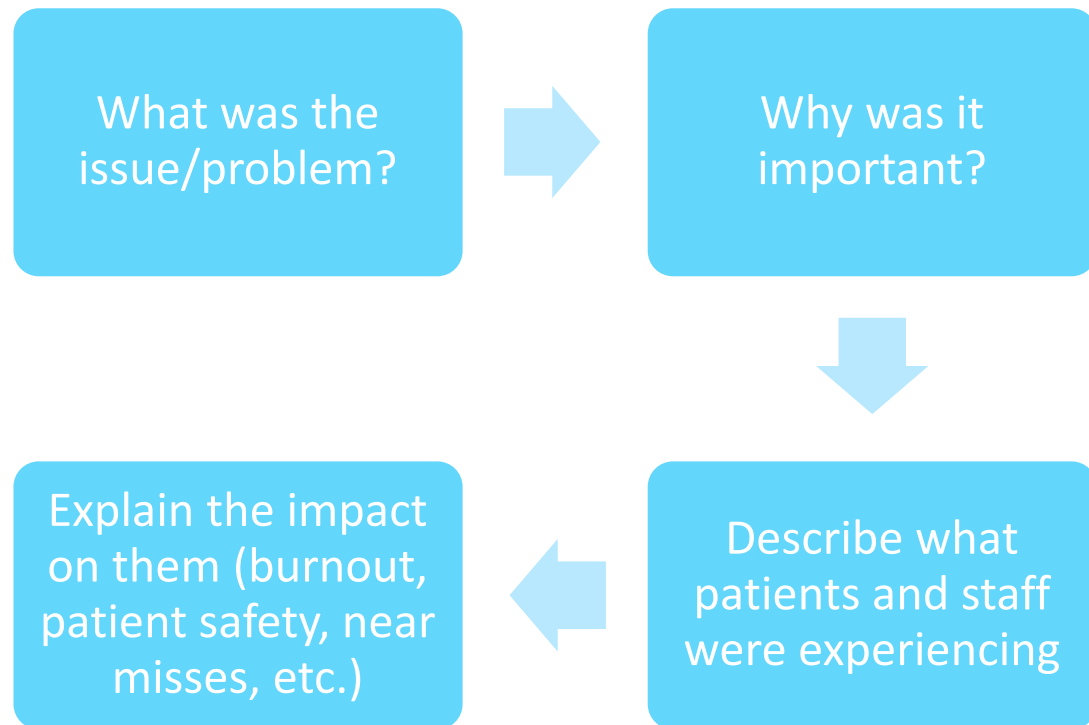
- Please identify what data you tracked to indicate an improvement, or you may use your overall HQIC sepsis mortality data



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The Opportunity to Improve Sepsis Care




- The issue/problem-Early identification and bundle compliance
- Why was it important-Early treatment
- Effect on patients and staff-a multitude of things
- Impact-Patient safety and Staff proficiency

What did you do:

- Summarize your project steps: *(Walk through the process)*
 - Collecting and using data-Monitored sepsis screening, bundle compliance, order set usage, documentation and query the staff.
 - Quality tools used-PDSA, 5-why's and graphs
 - Intervention or change implemented-ED staff boot camp, automatic reflex to repeat lactate for initial greater than 2; notification of elevated lactate to the Quality Staff for real time monitoring and notification to Directors/Managers of opportunities for improvement; education resources; addition to documentation in ED record; subcommittees to focus on documentation, education and ED goals, staff recognition.
 - How staff/patients were involved in your work-by being Champions to let us know what is working and what isn't.

Sepsis Screening Tool

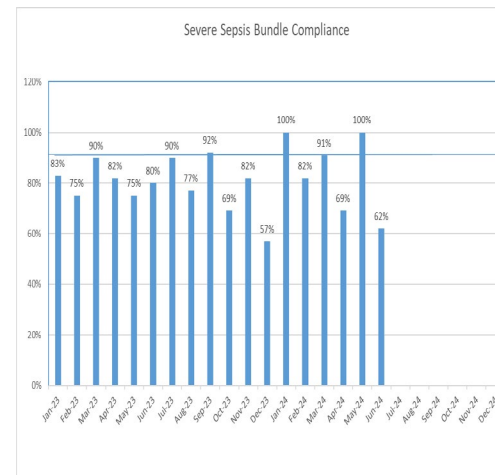
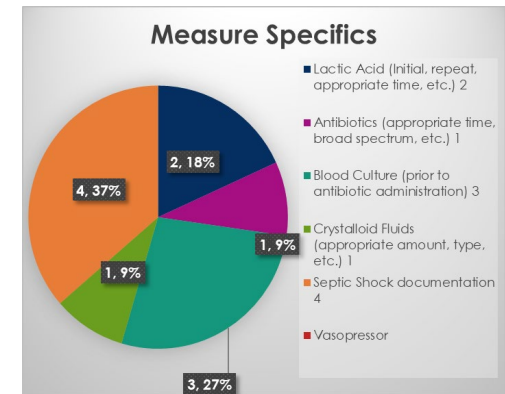


- Suspicion of infection (Y or N)
- SIRS criteria (need 2)
 - Temp >100.9 F (38.3 C) or <96.8 F (36 C)
 - HR >90 bpm
 - RR >20 bpm
 - WBC >12,000 or <4,000 or 10% bands

If YES to 1 & 2 = POSITIVE sepsis screen. Order a STAT lactic acid, blood cx x2, CBC, & CMP per protocol. Notify provider.

- Organ dysfunction (need one)
 - SBP <90 mmHg or MAP <65 mmHg
 - SBP decreases >40 mmHg from baseline
 - Creatinine >2 mg/dl or urine output <0.5 ml/kg for 2 hrs
 - Bili >2 mg/dl
 - Lactate >2 mmol/L
 - Platelet <100,000
 - INR >1.5 or aPTT >60 sec
 - Acute resp failure with new invasive/non-invasive mechanical ventilation

YES to 1, 2, + 3 = POSITIVE screen suggestive of SEVERE sepsis



THINK SEPSIS

APPROPRIATE ADMINISTRATION OF ANTIBIOTICS IN SEPTIC PATIENTS

Sepsis is a life-threatening condition that requires timely management to reduce mortality. Antimicrobial therapy is the first pillar of sepsis/septic shock treatment. The administration of a prompt, empiric, antimicrobial therapy at the time of sepsis identification and after the collection of the appropriate cultures is a crucial step in pharmacological management.

Obtain TWO Sets of Cultures Before Antibiotic Administration

Medicines are the gold standard for the detection of bacteria. Cultures from the site of infection should be obtained before antibiotic administration. Pathogen collection after treatment has begun will decrease the number of cultures that accurately identify the cause of infection. 50% of mortality can be avoided if cultures are obtained after antibiotic administration.

Appropriate & Timely Administration of Antibiotics

It is strongly recommended to start empiric broad-spectrum antibiotic therapy within one hour of sepsis recognition. Choice of antimicrobial therapy that will cover all likely microorganisms causing the suspected source of infection. Also consider patient-related factors and antibiotic-resistant pathogen factors when selecting therapies.

Deescalate Antimicrobial Therapy When Appropriate

Narrowing empiric therapy to a pathogen-specific therapy is considered essential for successful antibiotic stewardship programs. Prolonged duration of antimicrobial therapy is associated with increased resistance, higher risk of drug-associated adverse effects, and higher costs. Prompt antimicrobial therapy has not been demonstrated to be beneficial.

SIRS Criteria

- Systemic Inflammatory Response Syndrome
- At least two of or more criteria
- Temp >100.9 F (38.3 C) or <96.8 F (36 C)
- Heart rate >90
- Respiratory rate >20 or PaCO₂ <32 mmHg
- WBC >12,000/mm³, <4,000/mm³, or >10% bands

Sepsis Criteria

- SIRS (S)
- Suspected or present source of infection

To Learn More:

- Scan the QR code below to access the 2023 Surviving Sepsis Campaign Guidelines

Severe Sepsis Criteria

- Lactic acidemia
- SBP <90 or SBF drop >40 mmHg or normal

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Your Results: How you made a Difference

- The interventions improved bundle compliance and early recognition.
- Staff experience-recognized the importance of early recognition and bundle compliance.
- Patient experience-early recognition and treatment leads to better outcomes.
- Health equity-finances, education, transportation and substance abuse challenges.
- Plan to sustain over time-Monitor the data, keep looking for the best up to date and meaningful resources for our staff and patients.



How did the intervention(s) change/improve processes?



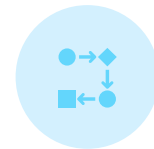
Describe the staff experience. *(Firsthand accounts when possible)*



What impact did this work have on patient experience? *(use patient stories when possible)*



Discuss health equity considerations



What is your plan to sustain improvement over time?

Key Takeaways: Lessons learned

- Listen to your staff and to your patients.
- Provide the best resources you can.
- Monitor everything real time and address opportunities for improvement as they appear.



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