

# MMMC Repeat Lactic Acid

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**METHODIST HEALTH SYSTEM**



## 1) AIM

1. Decrease sepsis mortality by 25% by August 1, 2018 *Baseline = 1.01 OE*
2. Increase repeat lactate compliance by 10% by the August 1, 2018 *Baseline = 24%*
3. Increase Sepsis bundle compliance by 10% by August 1, 2018 *Baseline = 44%*

## Why Is This Important

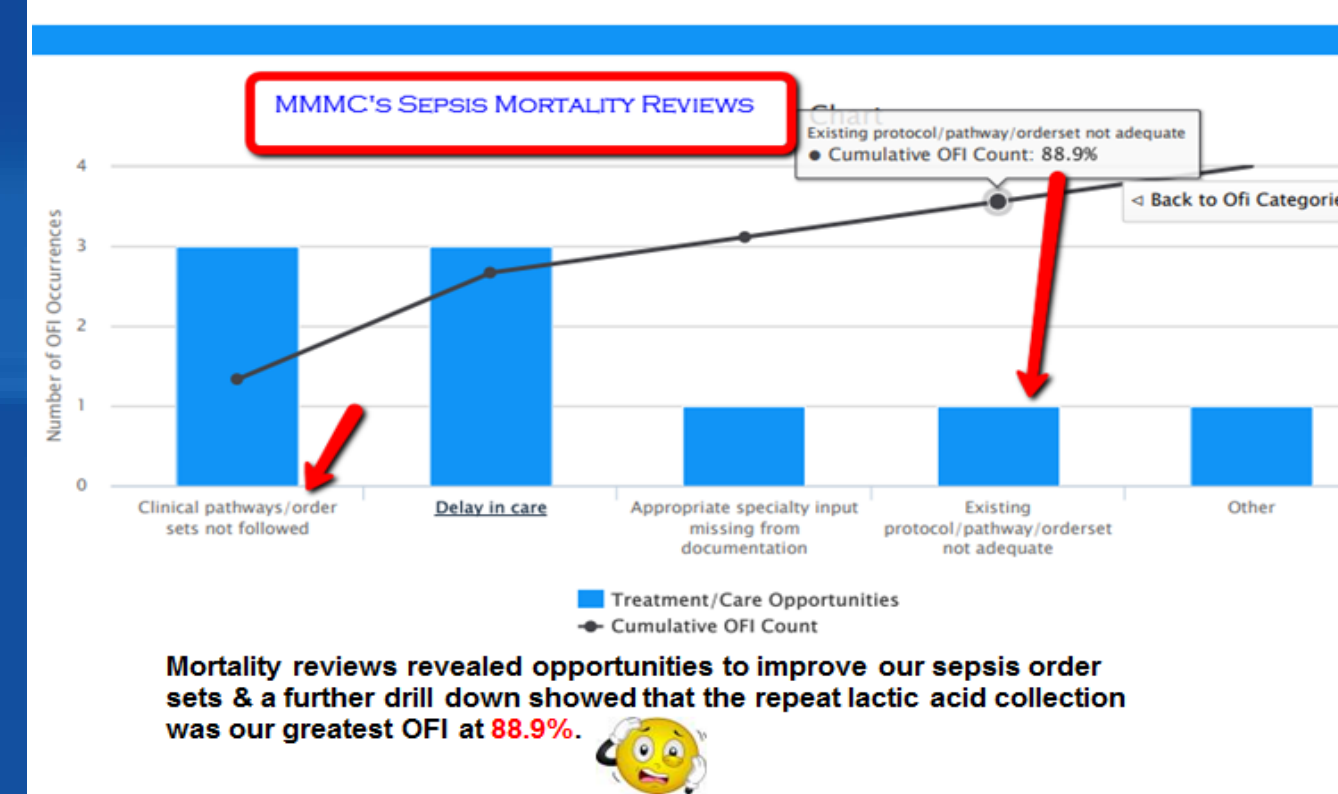
- For FY18', MMMC has a 24% compliance with the repeat lactate portion of the sepsis bundle. This means 76% of our patients are not receiving evidence based care when diagnosed with sepsis.
- Sepsis causes up to one half of all deaths in US hospitals according to JAMA. Addressing our AIMS will save patient lives.
- Failing to follow the bundle reveals that our septic patients have the longest length of stay out of any DRG within our hospital resulting in negative financial impacts.
- By increasing compliance of the 3 hour repeat lactic acid collection we can decrease mortality, LOS and costs. More importantly we will improve patient outcomes and CMS sepsis bundle compliance.
- Our estimated cost savings is \$296,552.00 over 12 months (Target – 4% cost reduction).

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## 2) Measures/ Metrics

### System Level Mortality Review



Data from concurrent reviews collected from MHS Lactate Report from EPIC.

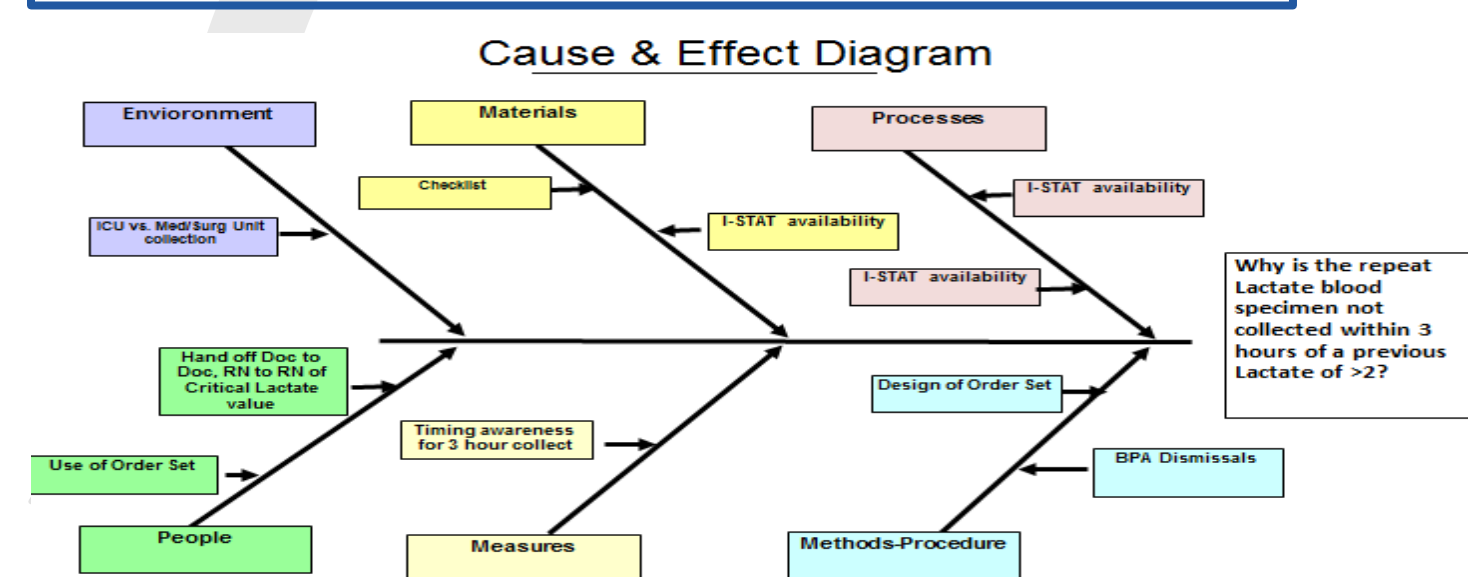
1. Increase compliance with the repeat lactate collection monitored through concurrent review by August 1, 2018 with a goal of 34%.
2. Increase sepsis bundle compliance monitored through concurrent review by August 1, 2018 with a goal of 54%.
3. Decrease sepsis mortality monitored by our system dashboard by August 1, 2018 with a goal of 25% reduction.

Data sources utilized: MIDAS, Premier and EPIC.

## 3) Improvement Methodology

**P PLAN**

- Elevator speech
- Meeting with stakeholders
- Defined our metrics
- Identify defects
- GEMBA



**D DO**

- Reviewed current process map.
- Cause and Effect Diagram completed with the staff.
- Addressed the critical values report.
- Priorities identified
- Revised IP order sets to meet EBP and CMS guidelines.

**A ACT**

- Lactate timer was added due to inability to change ED order set.
- POCT Lactate Critical Values not being documented
- Increase goals

**S STUDY**

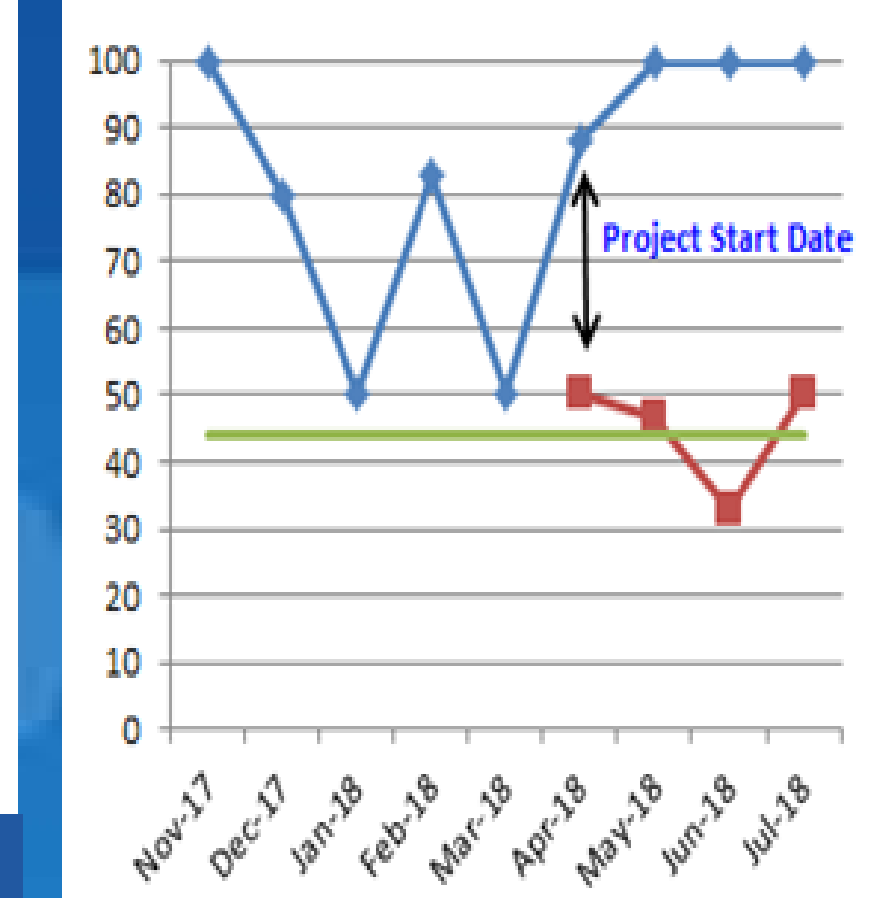
- Revised ED process map.
- Updated Inpatient Order set.
- Initiated lactate timer process.
- Critical value reporting corrected.
- Staff education provided (video and process map)

### References:

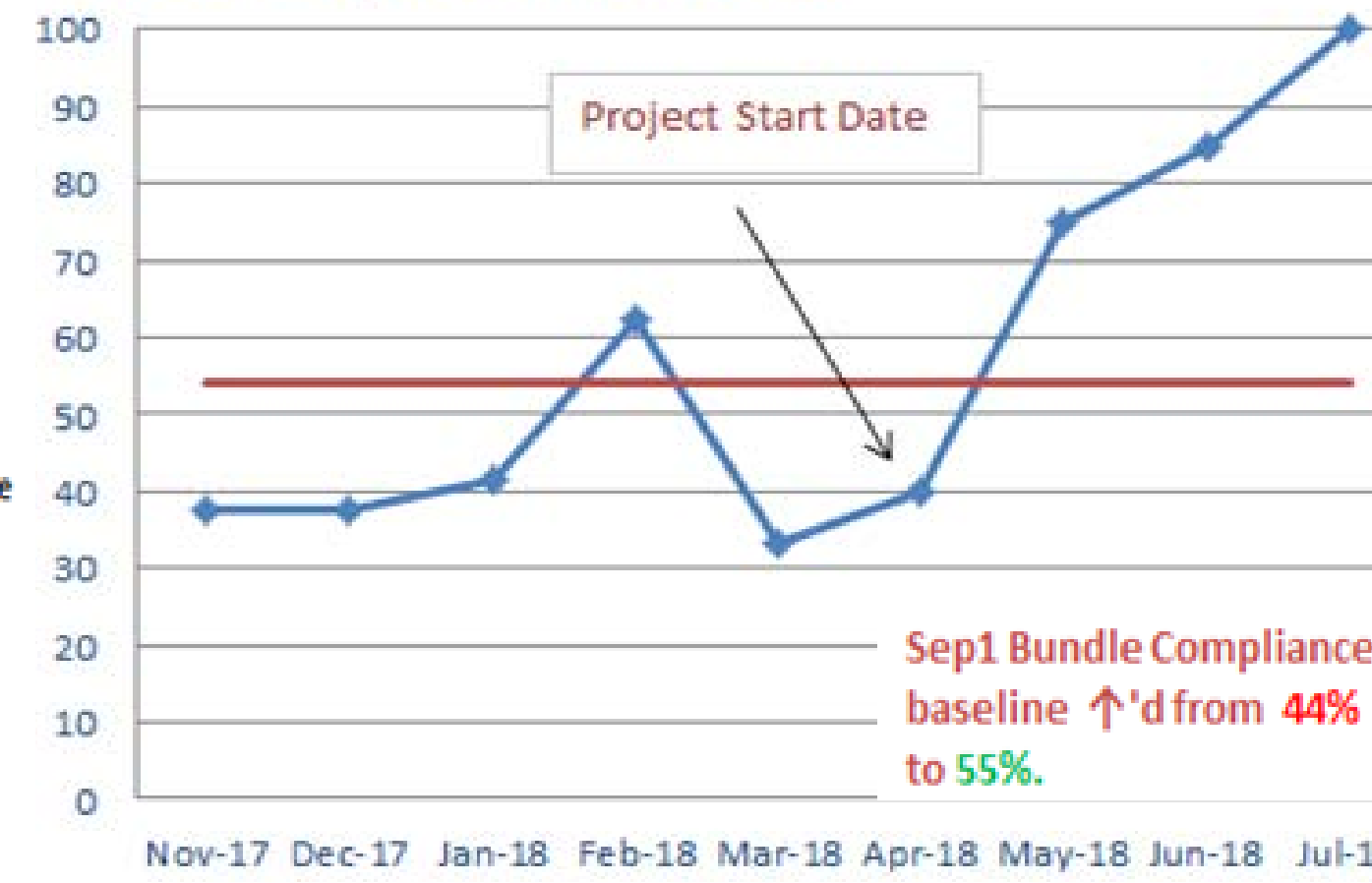
Journal American Medical Association  
 Surviving Sepsis Campaign

## Results

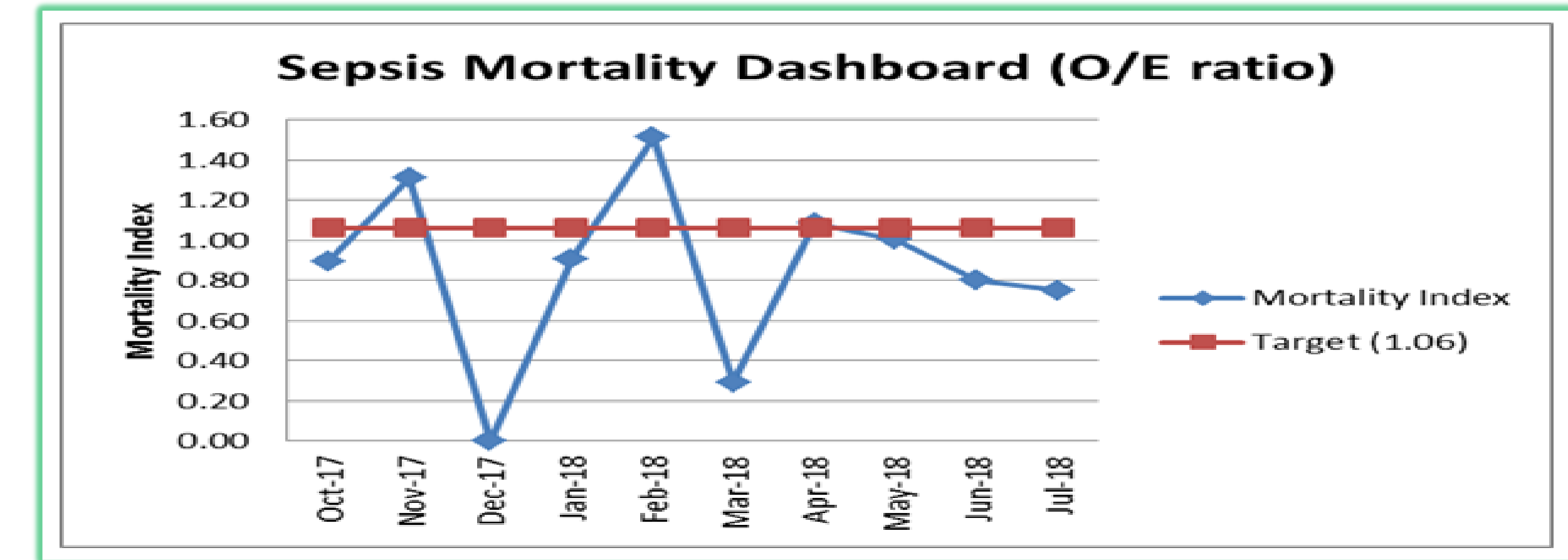
### Repeat Lactate Compliance Rates



### Midas Sep1 Bundle Data



	Baseline	YTD Savings
ALOS (Baseline 6.35)	6.35	6.08
LOS cost savings %		4.3%
Cost Savings		30,190.90



## Conclusion/ Next Steps

- Inpatient order set has been optimized (System Wide)
- ED owns getting POCT repeat lactate prior to pt.'s transfer
- Midas: Sep 1 bundle compliance went from 44%→55%, 0 Repeat lactate variances May thru August.
- Continue to work with ED informatics to update their order sets.
- Monitor reporting & documentation of RN to Provider ↑lactate POCT results
- Work on creating Organ Dysfunction Sepsis BPA's alerts
- Update MHS lactate report to show time collected to increase reporting accuracy.
- Enhance provider to provider handoff reporting.

### Acknowledgements:

Physicians: Andrew Bui, DO, Shelley Lenamond, DO  
 Administration: Jary Ganske  
 Project Champion: Donna Crimmins-Bonnell  
 Lab: Linda Caldwell  
 ED: Jeremy Taylor, Pamela Deal; April Greenberg, Hayle Hayle