Welcome
Advisor Live®: September 13, 2017

Our Presentation:

Sepsis Mortality Prevention to Survivorship

The Sepsis Crisis: Practical Steps You Can Implement Today

Will Begin Shortly

Listen to Today's Audio: 800.672.0175

Download today's slides at www.premierinc.com/events

Advisor Live® Webinar

Sepsis Mortality Prevention to Survivorship

The Sepsis Crisis: Practical Steps You Can Implement Today

September 13, 2017

Download today's slides at www.premierinc.com/events
Dial-in: 800.672.0175

@PremierHA
#AdvisorLive

Logistics

AUDIO

Dial in to our operator assisted call, **800.672.0175**

NOTES

Download today's slides from the event post at premierinc.com/events

QUESTIONS

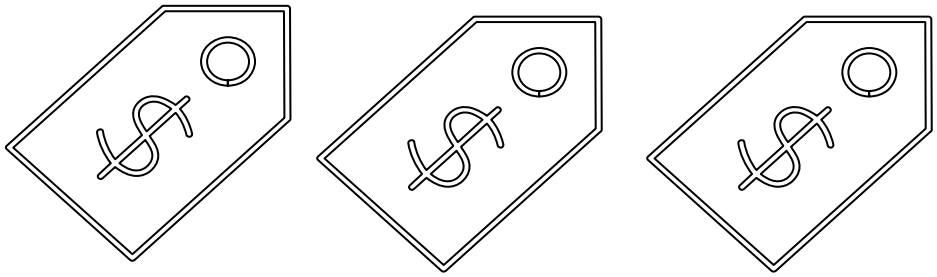
Use the "Questions and Answers"

RECORDING

This webinar is being recorded.
View it later today on the event post at premierinc.com/events.

Sepsis

Sepsis costs our country more than **$20 billion** annually and it is the highest cost hospital discharge for Medicare patients.



Today's Speakers

Linda Kenney, President/Executive Director, MITSS

Rosie Bartel, sepsis patient

Debra J. O'Connell, BSN, RN, CPHQ; Manager, Performance Improvement; Frederick Memorial Hospital

Madeleine Biondolillo, MD, MBA, Vice President-Quality and Safety, Premier Inc.

Medically Induced Trauma Support Services

MITSS

Medically Induced Trauma Support Services

Supporting Healing. Restoring Hope.

Patient Experiences

Linda Kenney, President/Executive Director
MITSS
Rosie Bartel, Sepsis Patient

MITSS
Medically Induced Trauma Support Services

OUR MISSION

To create more compassionate healthcare systems focused on the well-being of patients, families and healthcare providers who have been affected by adverse medical events and medical errors.

OUR VISION

For all patients, family members and healthcare providers involved in a medically induced trauma to have access to healing and supportive services.

OUR PURPOSE

MITSS produces **programs** that provide education to the healthcare community on medically induced trauma, the broad scope of its impact, and the crucial need for support services. We provide **training** directly to caregivers and healthcare staff. And we offer **support** to patients and family members as well as clinicians.

Programs

- Peer Support Tool Box
- Grand Rounds
- Organizational Assessments/Diagnostics
- Speakers Bureau
- Conferences and Symposia

Training

- Peer Support Training
- Post Event Support

Support

- Complimentary – One-on-One Phone Support
- Complimentary – 10-week Peer Led Virtual Support Group

Rosie Bartel and her VIP

My Children – Then

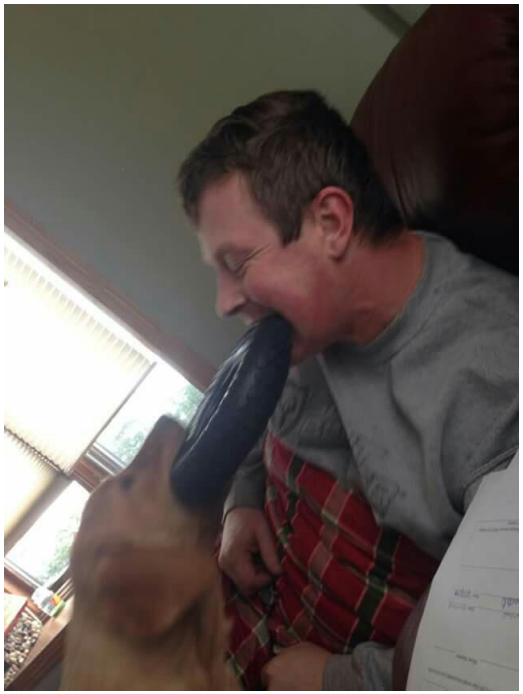
Children - Now

My Granddaughters - Then

Granddaughters - Now

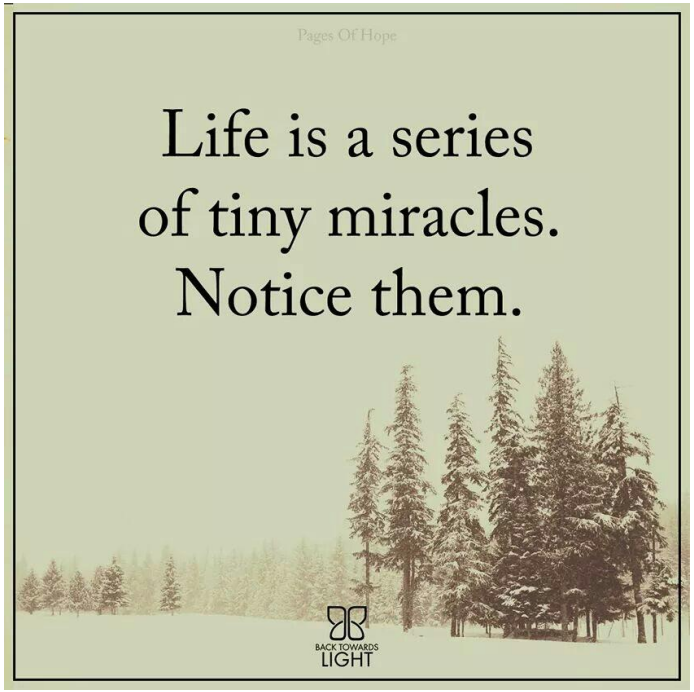
Friends – Those Stay Through It All

My Story



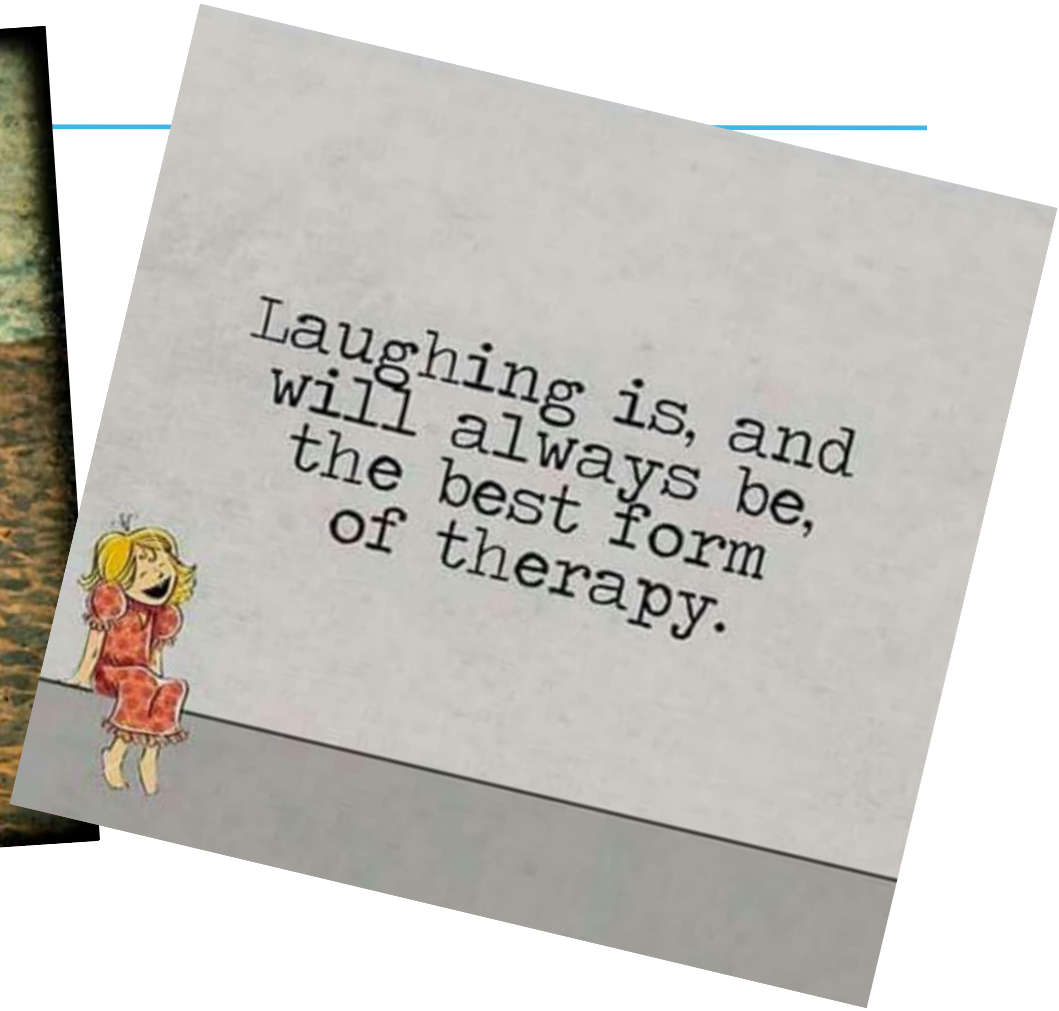
My Story and Sepsis

- **How I knew I was septic**
- **Why am I here to tell my story**
- **What can you do better to understand sepsis**



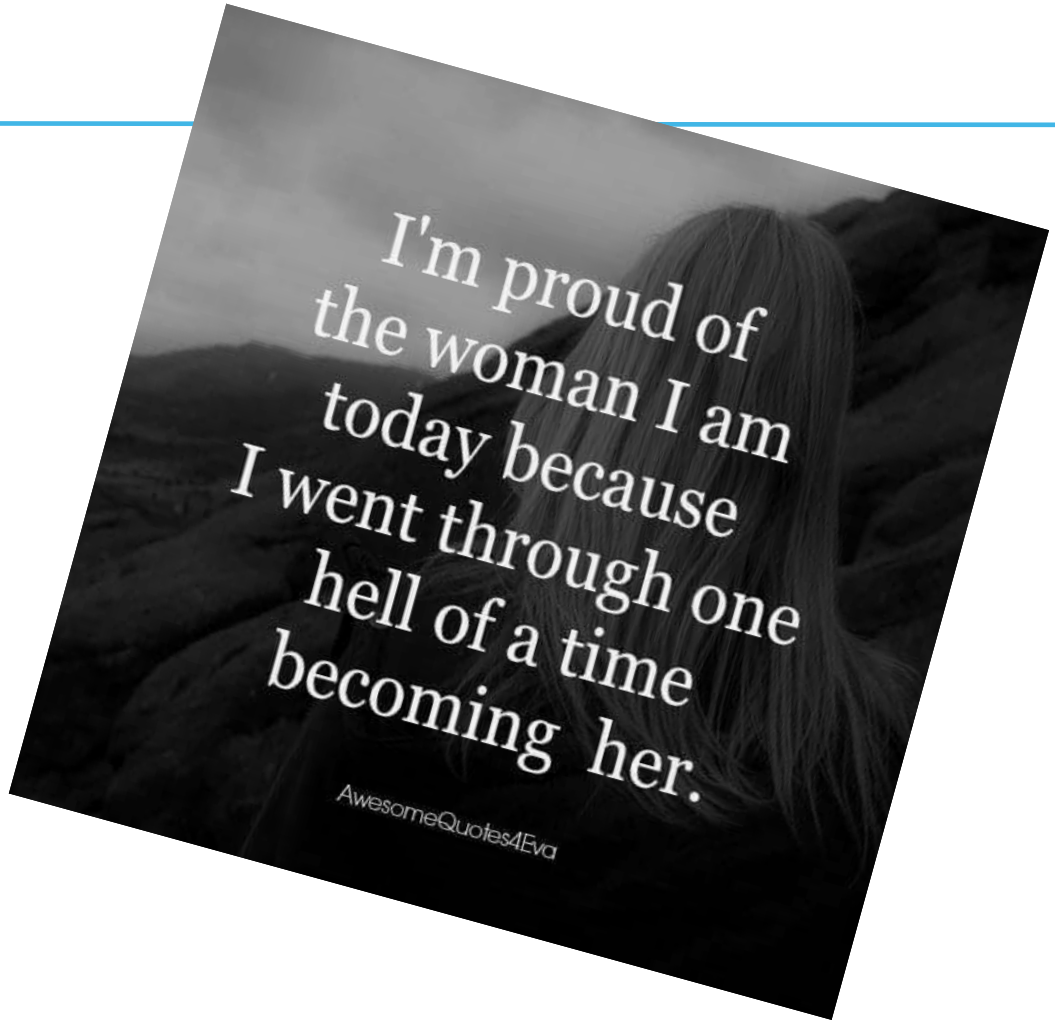
Final Thoughts


I May Not Be
PERFECT
But When I Look At
MY CHILDREN
I Know That I Got
Something In
MY LIFE
Perfectly Right


Laughing is, and
will always be,
the best form
of therapy.

Questions


Free Spirited
We can't always choose the music life plays for us, but we can choose how we dance to it.
~Unknown


I'm proud of the woman I am today because I went through one hell of a time becoming her.
AwesomeQuotes4Eva

Frederick Memorial Hospital

Keeping the Sepsis Mortality Odds in Your Favor

Debra O'Connell, BSN, RN, CPHQ

Manager Performance Improvement, Medical Staff Office

Frederick Memorial Hospital, Frederick, MD

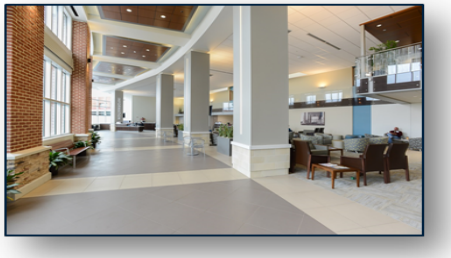
About Frederick Memorial Hospital

Frederick Memorial Hospital is a 299 bed private, not-for- profit community hospital in Maryland approximately 50 miles north of DC and 50 miles west of Baltimore.

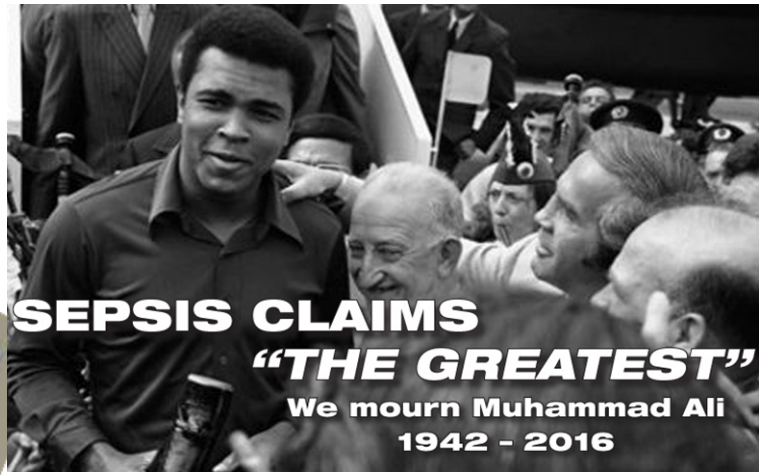
Inpatient admissions = ~ 16,000 per year

ED Visits = ~ 75,000 per year

- Reduced Sepsis Mortality O/E from 1.53 in 2012 down to 0.65 in CY 2016 with a few months as low as 0.10.
- Identified strategies for early identification and interventions for patients with severe sepsis and septic shock throughout the hospital setting.
- Faced multi-disciplinary challenges in creating a culture of teamwork to decrease sepsis mortality.
- Learned how to create a collaborative approach to decrease severe sepsis and septic shock mortality, including cultural changes required to secure buy in from all disciplines.



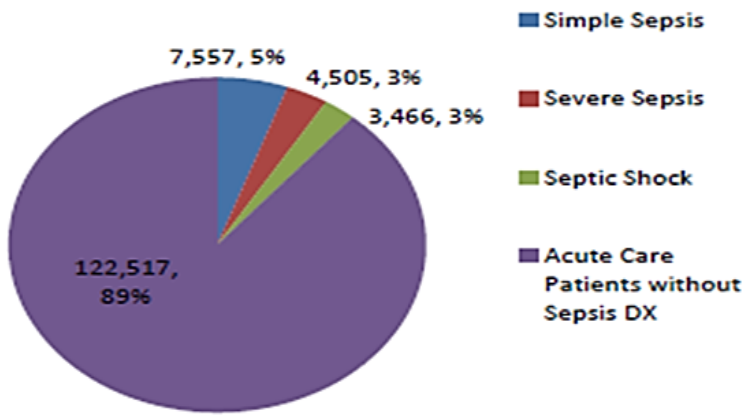
Sepsis



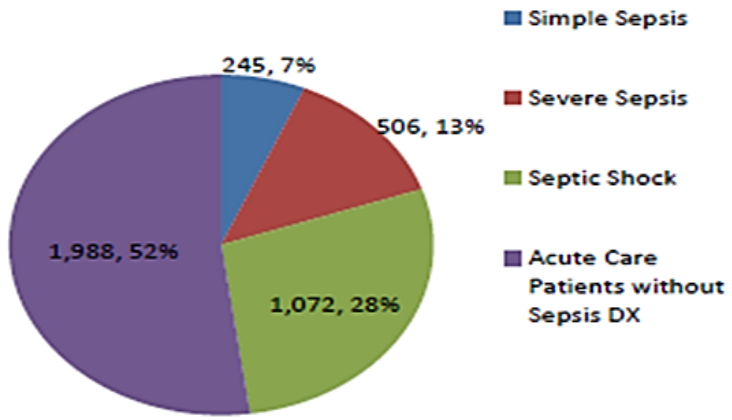
Sepsis Mortality

Sepsis is the #1 Cause of Inpatient Deaths

2014 Acute Care Discharges
11% of Patients Have Sepsis DX



2014 Acute Care Deaths
48% of Patients Have Sepsis DX



11/16/2016

9

CMS Core Measure Update webinar – 11/16/2016

Sepsis

- Feb 2012 Presentation (Using 2010 -2011 data)

Outcome Measure	FMH O/E Ratio	Ext Peer O/E Ratio
Mortality	1.53	0.93
Length of Stay	0.80	1.07
Readmissions	0.87	0.78

- The Observed Mortality for the sepsis population was 15.95%. But if a goal of an O/E of 0.75 was obtained, an additional 68 lives could be saved.

- 97% of patients were arriving through the Emergency Department.
- No bundles / protocols in place.
- Failure to recognize the disease process and implement appropriate resuscitation.

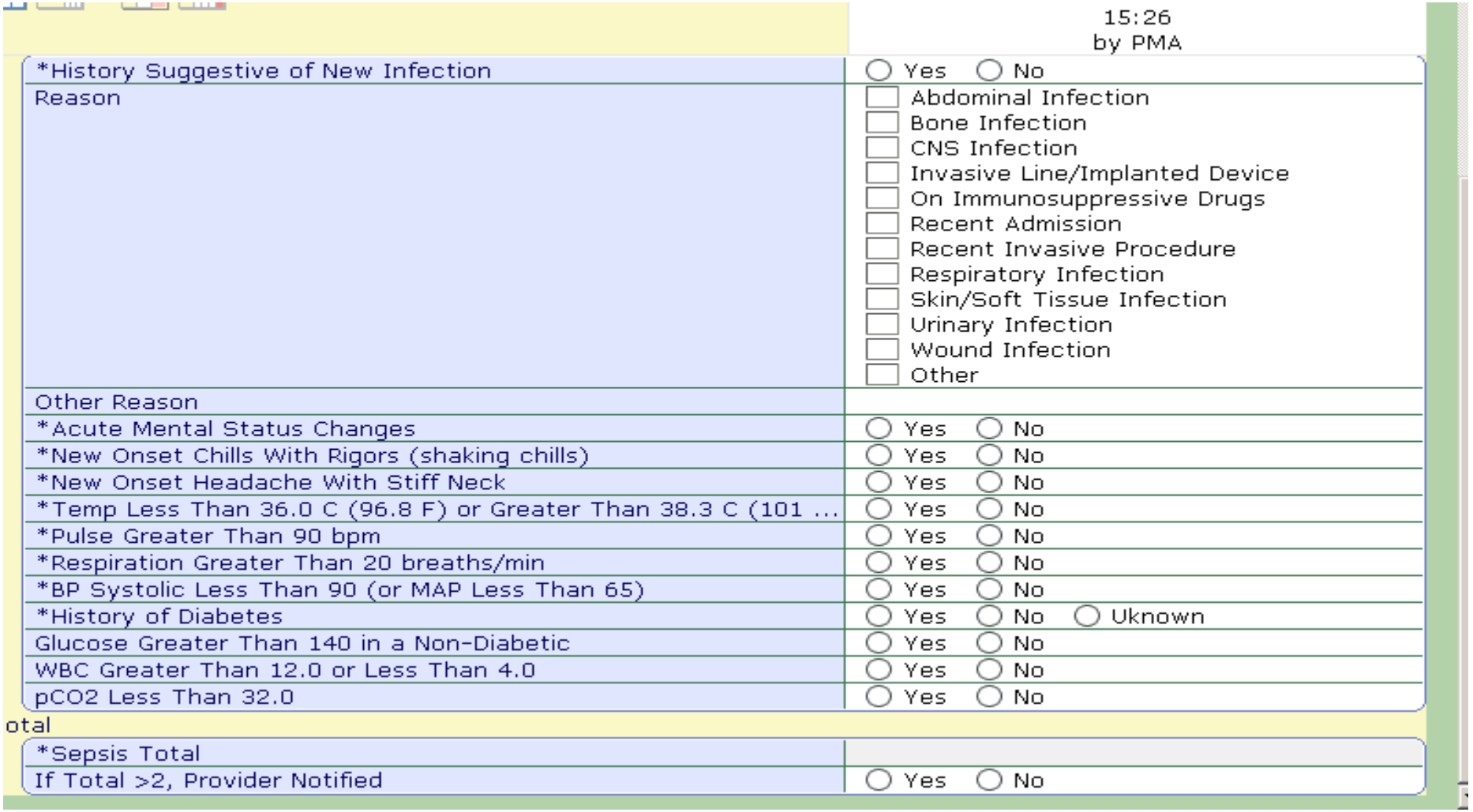
Teams put in Action

- Sepsis Steering Committee Formed
  - Premier Clinical Partners (Alexa Lee and Richard Ashe)
  - MD Champions (Intensivist, ED, Hospitalist)
  - Lab
  - Pharmacy
  - ICU staff
  - Infection Control Practitioners
  - ED / ICU/ M/S Nursing
  - Clinical Nurse Specialists
  - Clinical Education
  - Information Technology
  - Performance Improvement
  - Epidemiologist
  - Respiratory Therapist

Process implementation

- Sepsis Screening tool developed for use in Triage and as needed on floor when RNs suspected patient may be septic.
- Positive screen with score >2 would generate blood work/ initiate bundle.
- Referenced Surviving Sepsis Campaign bundles and IHI Evidence based Care
- Evidence Based Protocols used to develop own set of tools/ bundles to standardize identification and treatment
- Nurse driven protocol trials and implementation
- Joined Maryland Patient Safety Collaborative
- Bundles that were same as the 3 hour CMS core measure
- Collaboration with IT for development of screening tools and clinical panels

Screening Tool



	15:26 by PMA
*History Suggestive of New Infection	◯ Yes ◯ No
Reason	☐ Abdominal Infection ☐ Bone Infection ☐ CNS Infection ☐ Invasive Line/Implanted Device ☐ On Immunosuppressive Drugs ☐ Recent Admission ☐ Recent Invasive Procedure ☐ Respiratory Infection ☐ Skin/Soft Tissue Infection ☐ Urinary Infection ☐ Wound Infection ☐ Other
Other Reason	
*Acute Mental Status Changes	◯ Yes ◯ No
*New Onset Chills With Rigors (shaking chills)	◯ Yes ◯ No
*New Onset Headache With Stiff Neck	◯ Yes ◯ No
*Temp Less Than 36.0 C (96.8 F) or Greater Than 38.3 C (101 ...	◯ Yes ◯ No
*Pulse Greater Than 90 bpm	◯ Yes ◯ No
*Respiration Greater Than 20 breaths/min	◯ Yes ◯ No
*BP Systolic Less Than 90 (or MAP Less Than 65)	◯ Yes ◯ No
*History of Diabetes	◯ Yes ◯ No ◯ Uknown
Glucose Greater Than 140 in a Non-Diabetic	◯ Yes ◯ No
WBC Greater Than 12.0 or Less Than 4.0	◯ Yes ◯ No
pCO2 Less Than 32.0	◯ Yes ◯ No

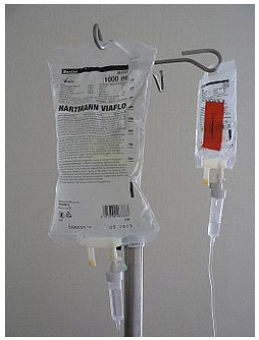
otal

*Sepsis Total	
If Total >2, Provider Notified	◯ Yes ◯ No

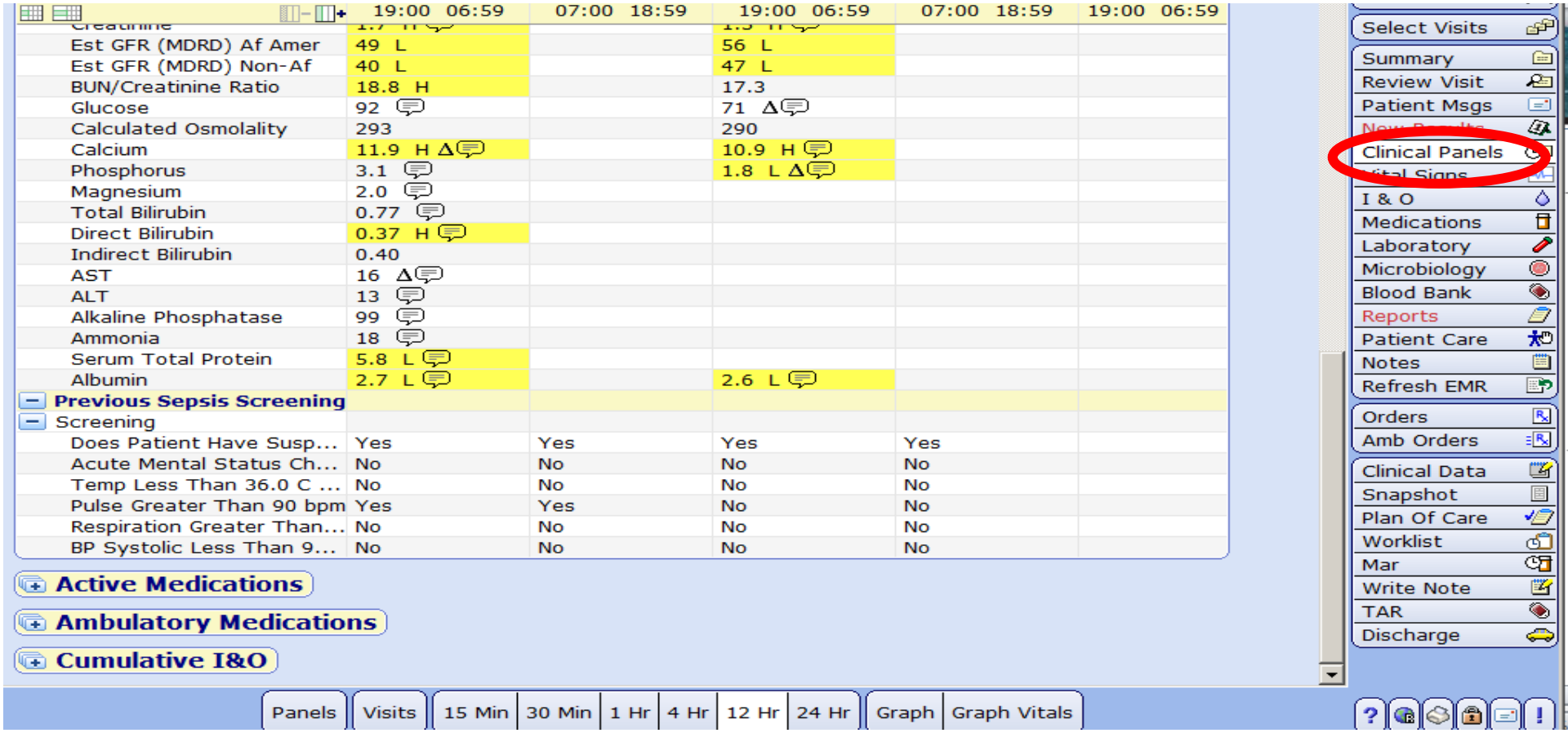
Bundle Implementation

- Blood work
  - Lactic Acid, CBC, Troponin, Chemistry Panel
  - Blood Cultures x 2 prior to antibiotic administration
- IV Fluid Resuscitation
  - 30 ml/ kg Normal Saline
- Antibiotic Administration within 3 hours of onset / identification
- Repeat Lactic Acid within 6 hours of onset of Severe Sepsis
- Vasopressors if hypotension persists after fluid bolus administration





Clinical Panel



	19:00 06:59	07:00 18:59	19:00 06:59	07:00 18:59	19:00 06:59
Est GFR (MDRD) Af Amer	49 L		56 L		
Est GFR (MDRD) Non-Af	40 L		47 L		
BUN/Creatinine Ratio	18.8 H		17.3		
Glucose	92		71 Δ		
Calculated Osmolality	293		290		
Calcium	11.9 H Δ		10.9 H		
Phosphorus	3.1		1.8 L Δ		
Magnesium	2.0				
Total Bilirubin	0.77				
Direct Bilirubin	0.37 H				
Indirect Bilirubin	0.40				
AST	16 Δ				
ALT	13				
Alkaline Phosphatase	99				
Ammonia	18				
Serum Total Protein	5.8 L				
Albumin	2.7 L		2.6 L		
Previous Sepsis Screening					
Screening					
Does Patient Have Susp...	Yes	Yes	Yes	Yes	
Acute Mental Status Ch...	No	No	No	No	
Temp Less Than 36.0 C ...	No	No	No	No	
Pulse Greater Than 90 bpm	Yes	Yes	No	No	
Respiration Greater Than...	No	No	No	No	
BP Systolic Less Than 9...	No	No	No	No	

Code Sepsis Implementation

- Bundle protocol
- Code Sepsis to alert, respond and initiate resuscitation measures for patients with lactic acid > 4.0.
  - RRT RNs responded to assist in Bundle completion and completion of checklist.
  - Other Code Sepsis team members included phlebotomy, Pharmacy, Respiratory Care, Charge Nurse, Primary Care Nurse and MD.
  - Attending MD contacted:
    - » One liter fluid bolus initiation, Blood cultures x 2, Blood tests included Lactic Acid
- After successful trials, taken to Quality Coordinating Council and Medical Executive Committee
  - Gaining approval to go live with Nurse-driven protocol hospital wide.
  - Nursing permitted to initiate 1 liter fluid bolus and then contact MD for additional orders
- Automated reflex order for repeat lactic acid if greater than 2.0.
- Education to staff / MDs

RRT QC Sepsis Checklist

RRTQC Sepsis Checklist

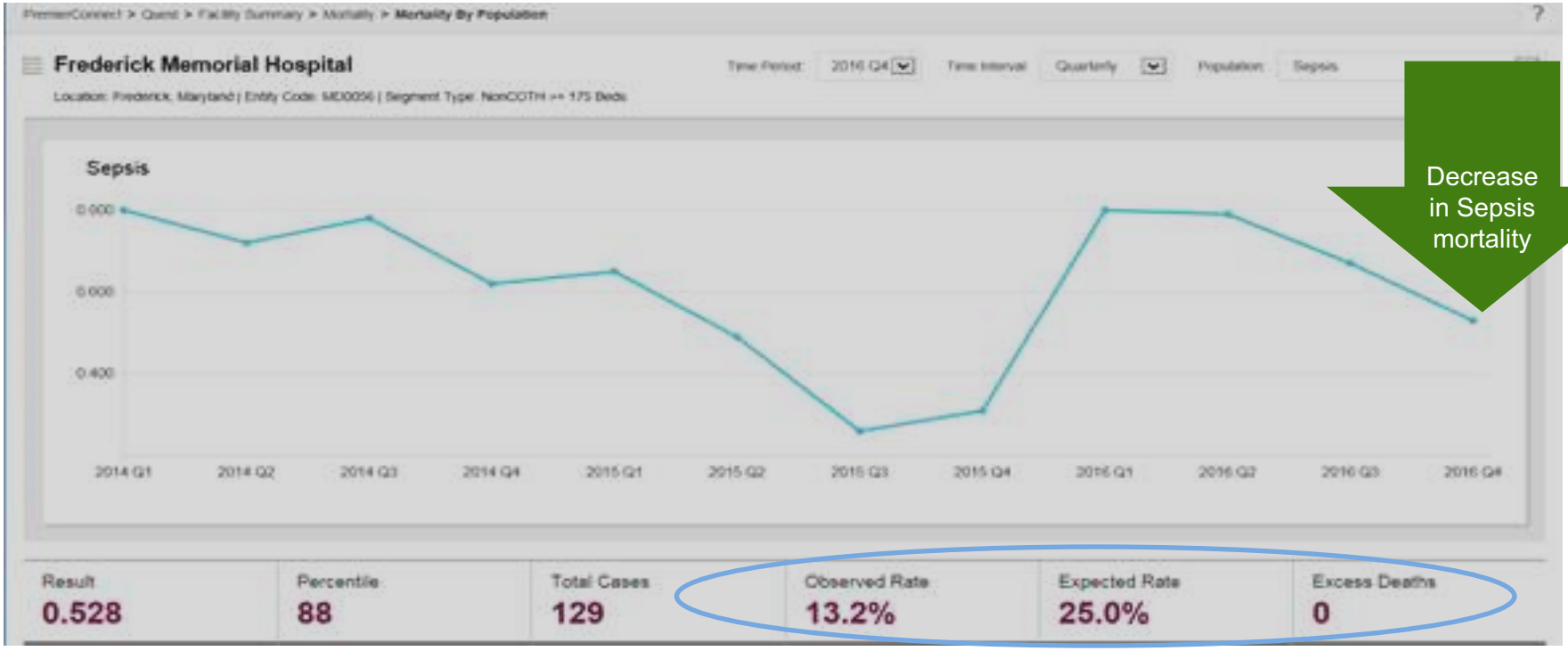
Time Code Sepsis Called _____
Nurse Completing Form _____
Physician Involved in Code Sepsis _____

INDICATOR	YES	NO	COMMENTS
Establish IV access, if unable to obtain access in 3 sticks and/or 15 minutes, notify MD immediately for line placement			
Administer 30cc/kg fluid resuscitation			
Cultures of all likely sources of infection			
Blood Cultures obtained before antibiotics administered			
Appropriate antibiotic hung within 1 hour			
Repeat lactate level at 2 hours after initial			
Insert central line for SBP < 90 after adequate fluid resuscitation and/or repeat lactate is 4 or greater			
Was central line placed using sterile procedure?			

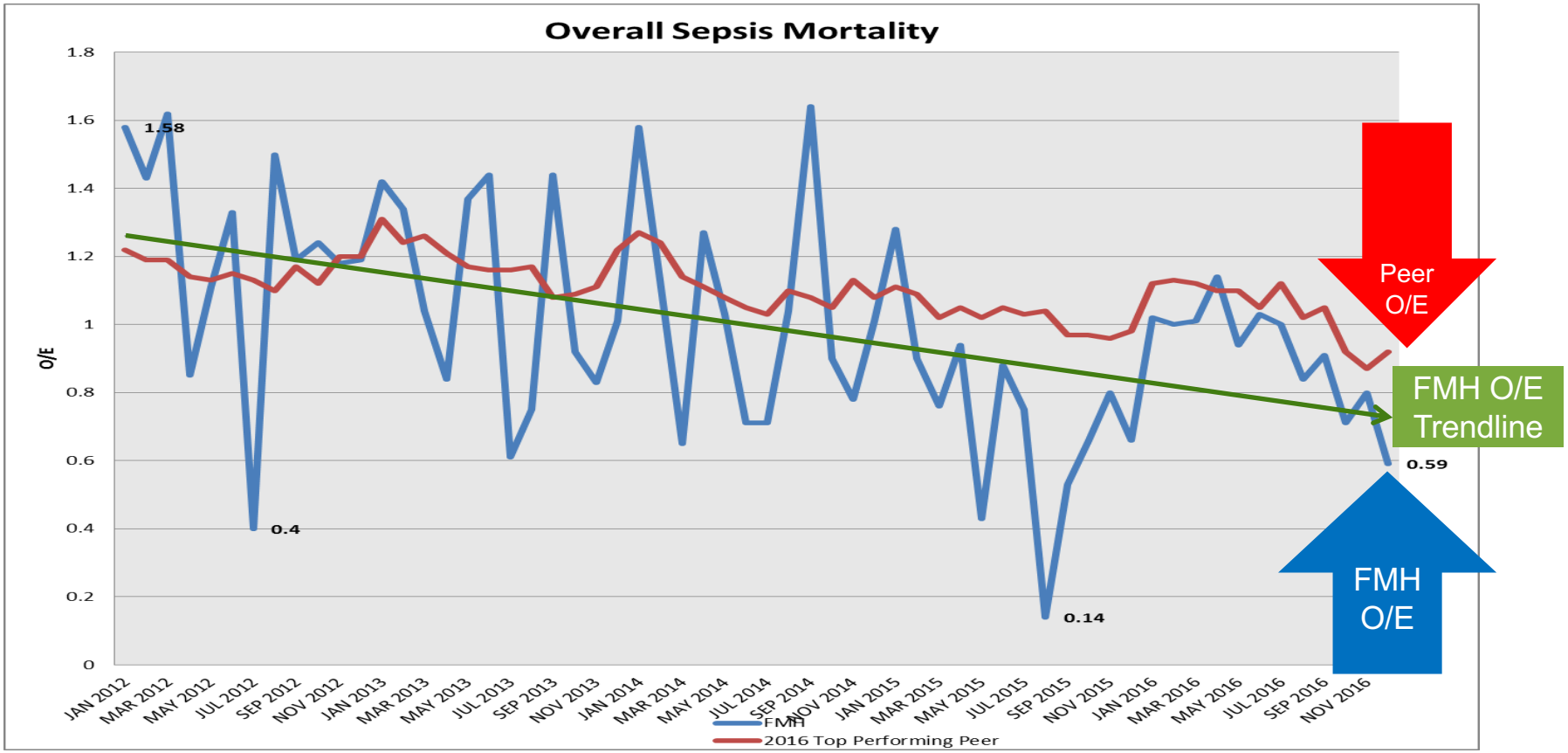
Did additional staff respond to Code Sepsis? If so please list:

Any issue/ concerns identified:

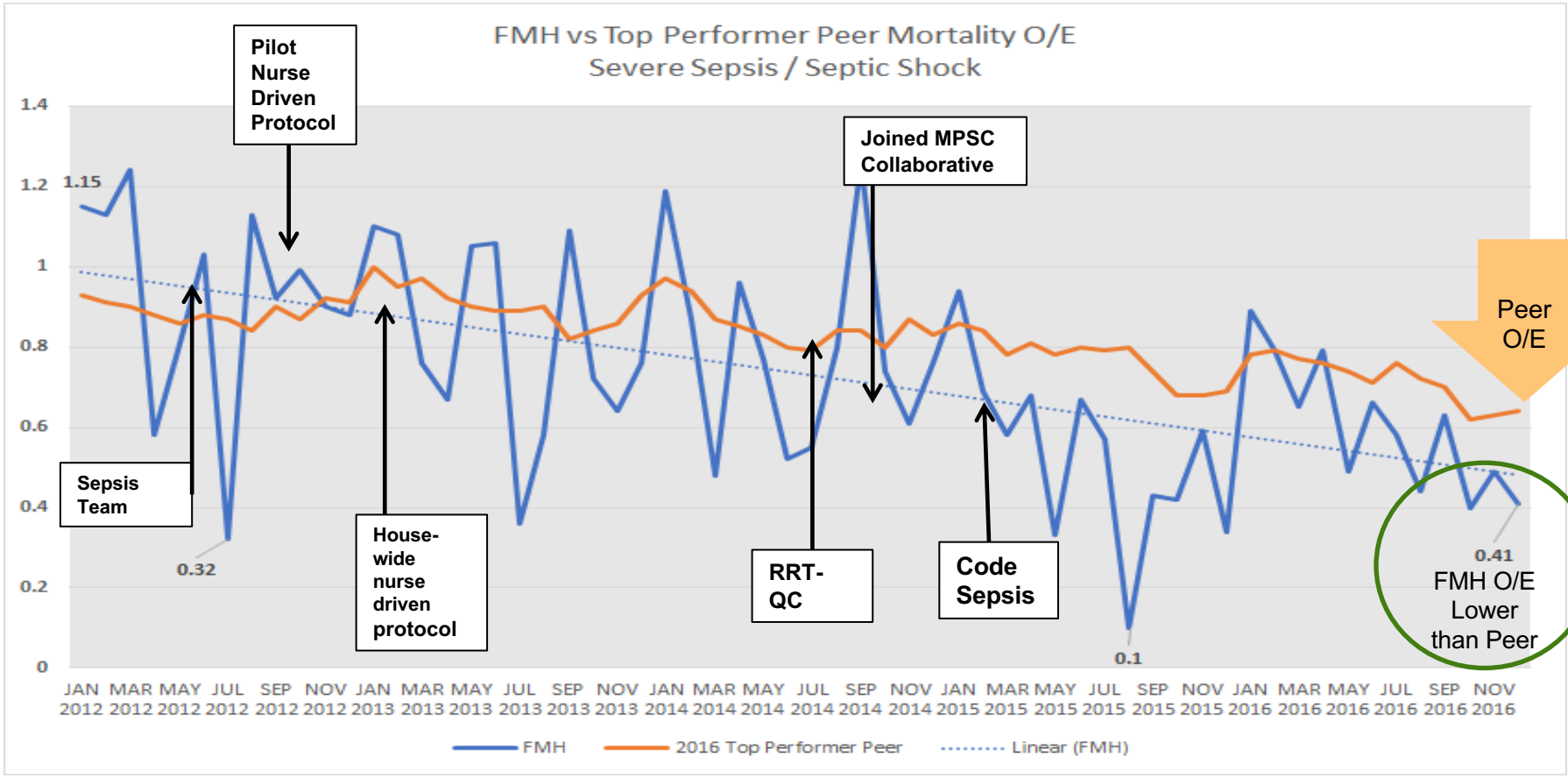
Quest - Mortality by population



Overall Sepsis Mortality FMH vs Top Performing Peer



Mortality – Severe Sepsis / Septic Shock

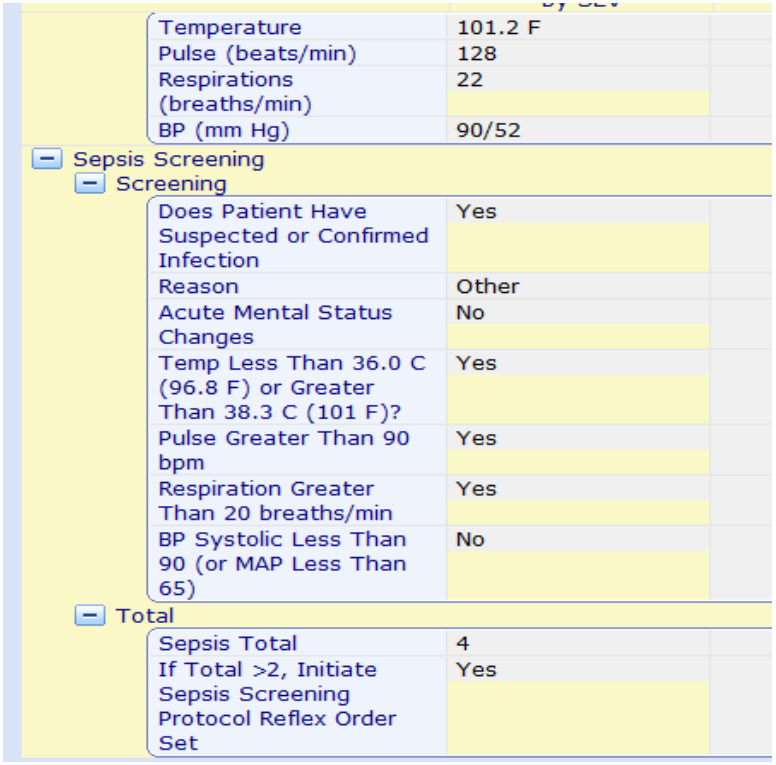


Culture shift

- Sharing success stories and positive outcomes
- Use of outcome data to track improvement
- Immediate feedback from Code Sepsis compliance / non-compliance.
- MDs supporting and educating
- RRT –QC RN support / rounding
- RN protocol initiation
- Senior Leadership
- Continued feedback to Leadership committees to be aware of outcomes
- Monthly case reviews of mortalities with physician leaders in ED, Intensivist and Hospitalist
- Sepsis screening / identification/ Revision

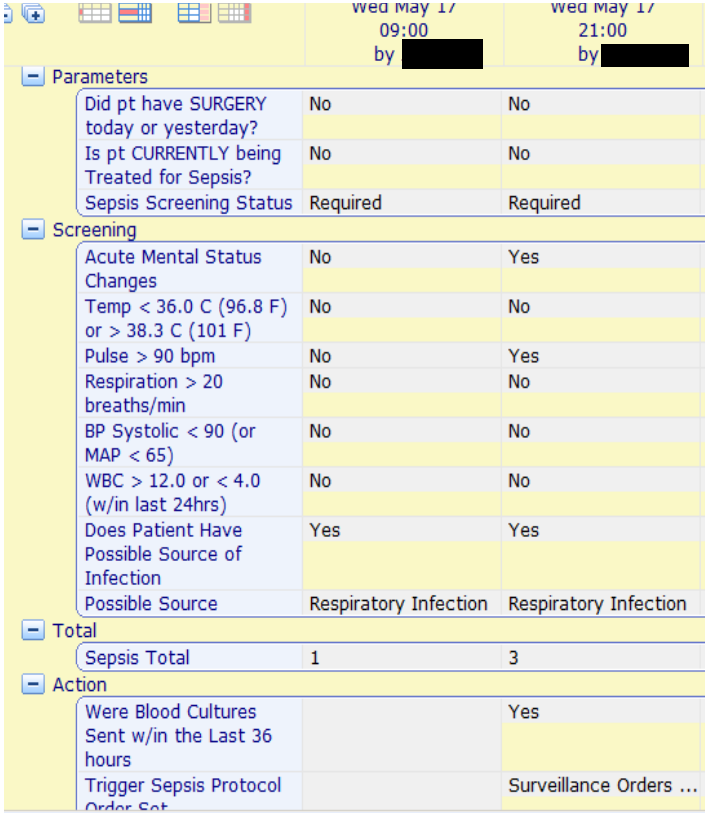
Revised Sepsis Screening / Surveillance Tools

ED Sepsis Screening Tool



Temperature	101.2 F
Pulse (beats/min)	128
Respirations (breaths/min)	22
BP (mm Hg)	90/52
Sepsis Screening	
Screening	
Does Patient Have Suspected or Confirmed Infection	Yes
Reason	Other
Acute Mental Status Changes	No
Temp Less Than 36.0 C (96.8 F) or Greater Than 38.3 C (101 F)?	Yes
Pulse Greater Than 90 bpm	Yes
Respiration Greater Than 20 breaths/min	Yes
BP Systolic Less Than 90 (or MAP Less Than 65)	No
Total	
Sepsis Total	4
If Total >2, Initiate Sepsis Screening Protocol Reflex Order Set	Yes

Sepsis Surveillance Screening Tool



	Wed May 17 09:00 by [redacted]	Wed May 17 21:00 by [redacted]
Parameters		
Did pt have SURGERY today or yesterday?	No	No
Is pt CURRENTLY being Treated for Sepsis?	No	No
Sepsis Screening Status	Required	Required
Screening		
Acute Mental Status Changes	No	Yes
Temp < 36.0 C (96.8 F) or > 38.3 C (101 F)	No	No
Pulse > 90 bpm	No	Yes
Respiration > 20 breaths/min	No	No
BP Systolic < 90 (or MAP < 65)	No	No
WBC > 12.0 or < 4.0 (w/in last 24hrs)	No	No
Does Patient Have Possible Source of Infection	Yes	Yes
Possible Source	Respiratory Infection	Respiratory Infection
Total		
Sepsis Total	1	3
Action		
Were Blood Cultures Sent w/in the Last 36 hours		Yes
Trigger Sepsis Protocol Order Set		Surveillance Orders ...

PREMIER

Questions?

Linda Kenney
President/Executive Director, MITSS
1-888-366-4877
LKenney@mitss.org

Rosie Bartel
Sepsis patient
Bartel1949@gmail.com

Debra J. O'Connell, BSN, RN, CPHQ
Manager, Performance Improvement,
Frederick Memorial Hospital
240- 566-4122
DOconnell@fmh.org

Madeleine Biondolillo, MD, MBA
Vice President-Quality and Safety,
Premier Inc.
(781) 789-2180
Madeleine_Biondolillo@premierinc.com