CMS
CENTERS FOR MEDICARE & MEDICAID SERVICES
CENTER FOR CLINICAL STANDARDS & QUALITY

Exploring Sepsis Readmissions

HIIN Leadership, Improvement Advisors, and Hospitals Pacing Event

December 7, 2017

Welcome

Welcome!

Who's in the Room?

Kendall K. Hall, MD, MS
Managing Director
IMPAQ International, LLC
NCD Project Director

Overview

- Data Framing
  - Lyndsay Bower (Program Evaluation Contractor)
- Patient Perspective
  - Rosie Bartel
- Hospital Readmissions after Sepsis
  - Mark Mikkelsen, MD, MSCE (Penn Medicine and Society for Critical Care Medicine)
- Improving Sepsis Outcomes: Lessons from a Transitional Medical Clinic
  - Roger Chang, MD, Trish Cruz, RN, and Kang Hsu, MD (St. Joseph Health / HSAG HIIN)
- Questions and Answers
- CMS Comments

Program Evaluation Contractor

Sepsis and Readmissions

Lyndsay Bower
PEC, Pacing Event Support

Improvement on Core AEAs Best-improving Outcome Measure, by HIIN: Sepsis and Readmissions

HIIN	Number of PfP-Eligible Hospitals	Sepsis	Readmissions
Carolinas	36	51.8*	1.1
Dignity Health	36	18.7	-3.2
HealthInsight	83	35.5	5.1
HRET	1,633	13.6	4.9
HSAG	276	8.8	2.5
Iowa	153	47.4**	6.1
Michigan	318	9.6	1.9
Minnesota	122	14.8	3.6
New Jersey	66	9.2	11.9
New York	176	22.8	16.0
Ohio	105	48.1	13.9
Ohio Children's	78		1.8
Pennsylvania	95	23.6*	0.8
Premier	488	20.3*	2.6
Vizient	279	8.5	4.3
Washington	119	28.5	5.5

Legend:

- ≥12 percent improvement in readmissions
  ≥20 percent improvement in all other AEAs
- ≥0 percent improvement in readmissions but <12 percent improvement in readmissions
  ≥0 percent improvement in all other AEAs but <20 percent improvement in all other AEAs
- <0 percent improvement

** HIIN met a benchmark, where achievement score=9 for the measure in that AEA.*

*** HIIN met a benchmark for a measure whose improvement is not shown in this table*

Source: PEC analysis of HIINs' data submissions, November 2017.

Note 1: Where there are multiple qualifying measures, the PEC selected the measure with the greatest improvement for each AEA.

Note 2: The blank cells represent no data or inadequate data to count any hospitals as reporting. The "N/A" cells represent no HIIN-aligned hospitals participating in the area.

Note 3: The total number of hospitals includes 10 hospitals listed on two HIINs' hospital lists and, thus, is 10 hospitals more than the unduplicated total mentioned at the front of the report

Overview of Improvement in Leading Indicators and HIIN Data, by AEA

	ADE	CAUTI	CLABSI	*C. diff*	Falls	PrU	Sepsis	SSI	VTE	VAE	Readm
Leading Indicators	N/A	↑ 12.3	↑ 16.6	↑ 20.3	N/A	↓ -55.4	↔ 14.9 11.4 -2.5	↑ 6.8 5.6	↑ 7.5	N/A	↔ -0.17 3.0
HIIN Data: Weighted Average Best-Improving HIIN Outcome Measure*	↑ 10.3	↑ 19.5	↑ 21.8	↑ 17.3	↔ 3.1	↓ -12.9	↑ 10.1	↑ 24.1	↔ 3.6	↑ 14.1	↔ 3.5

Sources: Leading Indicators: Centers for Disease Control and Prevention (CDC), Centers for Medicare & Medicaid Services (CMS) data. HIIN Data: PEC analysis of HIIN data submitted November 9, 2017.

Note 1: Each HIIN's data are weighted by its number of hospitals in the analysis, so that HIINs with improvement across a larger number of hospitals count more in the average.

Note 2: Yellow sideways arrows indicate: (1) results are mixed or (2) results are close to zero, meaning between 5 percent worsening and 5 percent improvement. Red downward arrows indicate the AEA is showing worsening of at least 5 percent, and green upward arrows indicates the AEA is improving at least 5 percent.

**Of those with sufficient data (at least 60 percent of hospitals reporting).*

Appendix

Most Improved Measure by HIIN: Sepsis

HIIN	Adverse Event Area	Measure Name	Baseline Period	Performance Period	Percent Improvement
Carolinas	Sepsis	Sepsis Post-Operative Rate per 1,000 Surgical Discharges	10/01/2015 - 09/30/2016	07/01/2017 - 09/30/2017	51.80%
Dignity Health	Sepsis	Sepsis Overall Mortality Rate	01/01/2014 - 12/31/2014	07/01/2017 - 09/30/2017	18.70%
HealthInsight	Sepsis	Sepsis Post-Operative Rate per 1,000 Surgical Discharges (Medicare FFS)	10/01/2015 - 09/30/2016	04/01/2017 - 06/30/2017	35.50%
HRET	Sepsis	Sepsis Post-Operative Rate per 1,000 Surgical Discharges (Medicare FFS)	10/01/2015 - 09/30/2016	04/01/2017 - 06/30/2017	13.60%
HSAG	Sepsis	30-day Sepsis Mortality Rate	10/01/2015 - 09/30/2016	04/01/2017 - 06/30/2017	8.80%
Iowa	Sepsis	Sepsis Post-Operative Rate per 1,000 Surgical Discharges (Medicare FFS)	10/01/2015 - 09/30/2016	04/01/2017 - 06/30/2017	47.40%
Michigan	Sepsis	Sepsis Overall Mortality Rate	01/01/2014 - 12/31/2014	01/01/2017 - 03/31/2017	9.60%
Minnesota	Sepsis	Sepsis Post-Operative Rate per 1,000 Surgical Discharges (Medicare FFS)	10/01/2015 - 09/30/2016	04/01/2017 - 06/30/2017	14.80%
New Jersey	Sepsis	Sepsis and Septic Shock Cases that Expired While in the Hospital	01/01/2016 - 12/31/2016	06/01/2017 - 08/31/2017	9.20%
New York	Sepsis	Sepsis Post-Operative Rate per 1,000 Surgical Discharges (Medicare FFS)	10/01/2015 - 09/30/2016	04/01/2017 - 06/30/2017	22.80%
Ohio	Sepsis	Sepsis Post-Operative Rate per 1,000 Surgical Discharges (Medicare FFS)	10/01/2015 - 09/30/2016	04/01/2017 - 06/30/2017	48.10%
Pennsylvania	Sepsis	Sepsis Post-Operative Rate per 1,000 Surgical Discharges	10/01/2015 - 09/30/2016	10/01/2016 - 12/31/2016	23.60%
Premier	Sepsis	Sepsis Post-Operative Rate per 1,000 Surgical Discharges	10/01/2015 - 09/30/2016	04/01/2017 - 06/30/2017	20.30%
Vizient	Sepsis	Sepsis Observed Mortality	10/01/2016 - 12/31/2016	05/01/2017 - 07/31/2017	8.50%
Washington	Sepsis	Sepsis (Severe Sepsis and Septic Shock Mortality)	01/01/2014 - 12/31/2014	04/01/2017 - 06/30/2017	28.50%

Source: PEC's analysis of HIINs' data submissions, November 2017

Most Improved Measure by HIIN: Readmissions

HIIN	Adverse Event Area	Measure Name	Baseline Period	Performance Period	Percent Improvement
Carolinas	Readmissions	30-day All-Cause Readmission Rate per 100 Admissions (Medicare FFS)	01/01/2014 - 12/31/2014	04/01/2017 - 06/30/2017	1.10%
Dignity Health	Readmissions	30-day All-Cause Readmission Rate per 100 Admissions (Medicare FFS)	01/01/2014 - 12/31/2014	04/01/2017 - 06/30/2017	-3.20%
HealthInsight	Readmissions	30-day All-Cause Readmissions within Facility, HIIN-submitted measure (Medicare FFS)	01/01/2014 - 12/31/2014	01/01/2017 - 03/31/2017	5.10%
HRET	Readmissions	Hospital-Wide All-Cause Readmissions, Medicare	10/01/2016 - 12/31/2016	04/01/2017 - 06/30/2017	4.90%
HSAG	Readmissions	30-day All-Cause Readmissions	10/01/2015 - 09/30/2016	04/01/2017 - 06/30/2017	2.50%
Iowa	Readmissions	30-day All-Cause Unplanned Readmissions, Same Hospital	10/01/2015 - 09/30/2016	04/01/2017 - 06/30/2017	6.10%
Michigan	Readmissions	30-day All-Cause Readmission Rate per 100 Admissions (Medicare FFS)	01/01/2014 - 12/31/2014	04/01/2017 - 06/30/2017	1.90%
Minnesota	Readmissions	30-day All-Cause Readmission Rate per 100 Admissions (Medicare FFS)	01/01/2014 - 12/31/2014	04/01/2017 - 06/30/2017	3.60%
New Jersey	Readmissions	30-day All-Cause Readmissions	01/01/2014 - 12/31/2014	06/01/2017 - 08/31/2017	11.90%
New York	Readmissions	30-day Potentially Preventable Readmission Rate per 100 At Risk Admissions for Medicare FFS Patients Only	01/01/2014 - 12/31/2014	02/01/2017 - 04/30/2017	16.00%
Ohio	Readmissions	30-day All-Cause Readmissions	01/01/2014 - 12/31/2014	01/01/2017 - 03/31/2017	13.90%
Ohio Children's	Readmissions	30-day All-Cause Readmissions	01/01/2014 - 12/31/2014	05/01/2017 - 07/31/2017	1.80%
Pennsylvania	Readmissions	30-day All-Cause Readmission Rate per 100 Admissions (Medicare FFS)	01/01/2014 - 12/31/2014	04/01/2017 - 06/30/2017	0.80%
Premier	Readmissions	30-day All-Cause Readmissions	10/01/2015 - 12/31/2015	04/01/2017 - 06/30/2017	2.60%
Vizient	Readmissions	30-day Potentially Unplanned Readmissions	10/01/2016 - 12/31/2016	05/01/2017 - 07/31/2017	4.30%
Washington	Readmissions	30-day Readmissions per Discharges	01/01/2014 - 12/31/2014	04/01/2017 - 06/30/2017	5.50%

Source: PEC's analysis of HIINs' data submissions, November 2017

Patient Perspective

Rosie Bartel
Patient Advocate

Hospital Readmissions after Sepsis

Chair, Internal Medicine Section
Society of Critical Care Medicine (SCCM)

Mark E. Mikkelsen, MD, MSCE
Associate Professor of Medicine
Chief, Section of Medical Critical Care
Perelman School of Medicine

Penn Medicine

Disclosures

Co-Chair of the SCCM Thrive Supporting Survivors after Critical Illness Initiative

SCCM Representative to discussions today. This talk, informed by SCCM collaborations and work with Jack Iwashyna and Hallie Prescott specifically, does not necessarily represent SCCM viewpoints.

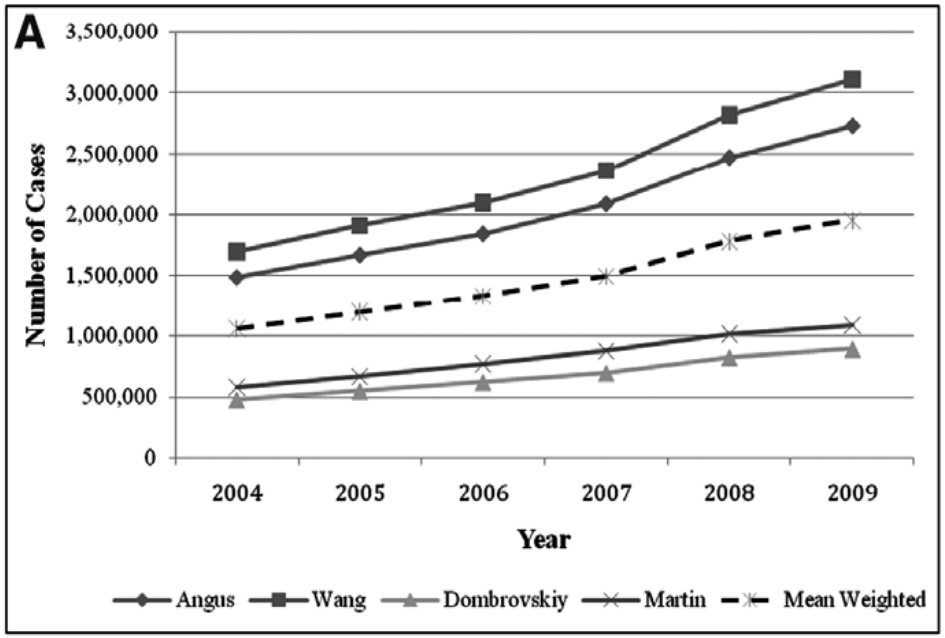
NIH

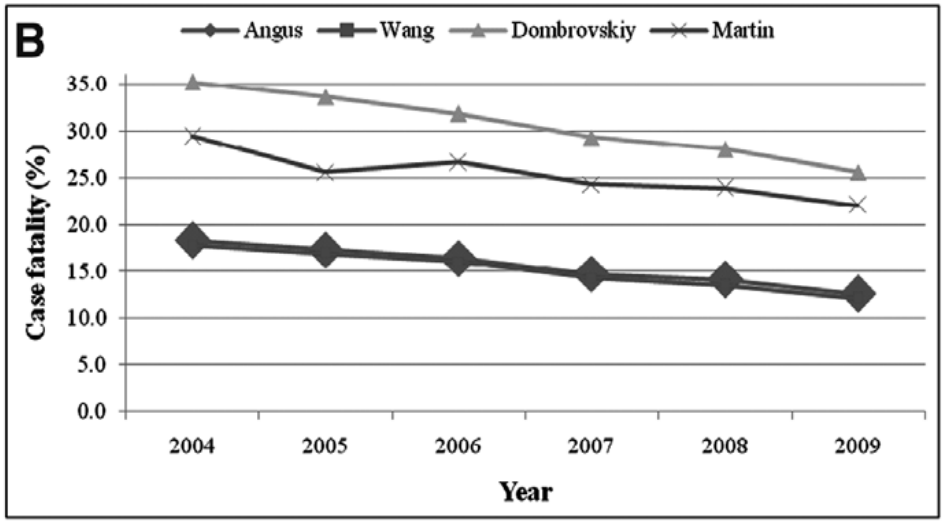
- NIH Loan Repayment Program Awardee
- NIH NINR R01 Co-investigator to study hospital readmissions after sepsis in patients discharged to home with home health services

Sepsis Is A Driver of U.S. Health Care

- **Sepsis is common & costly**
  - $ 24 billion
- **Sepsis, driven by improved recognition, is increasing**
- **Mortality is decreasing**
- **At Penn, the number of sepsis survivors increased from 1,502 in 2010 to 3,900 in 2015**

Gaieski et al Crit Care Med 2013
Lagu et al Critical Care Med 2012
Rhee et al 2017
Meyer et al Under Review



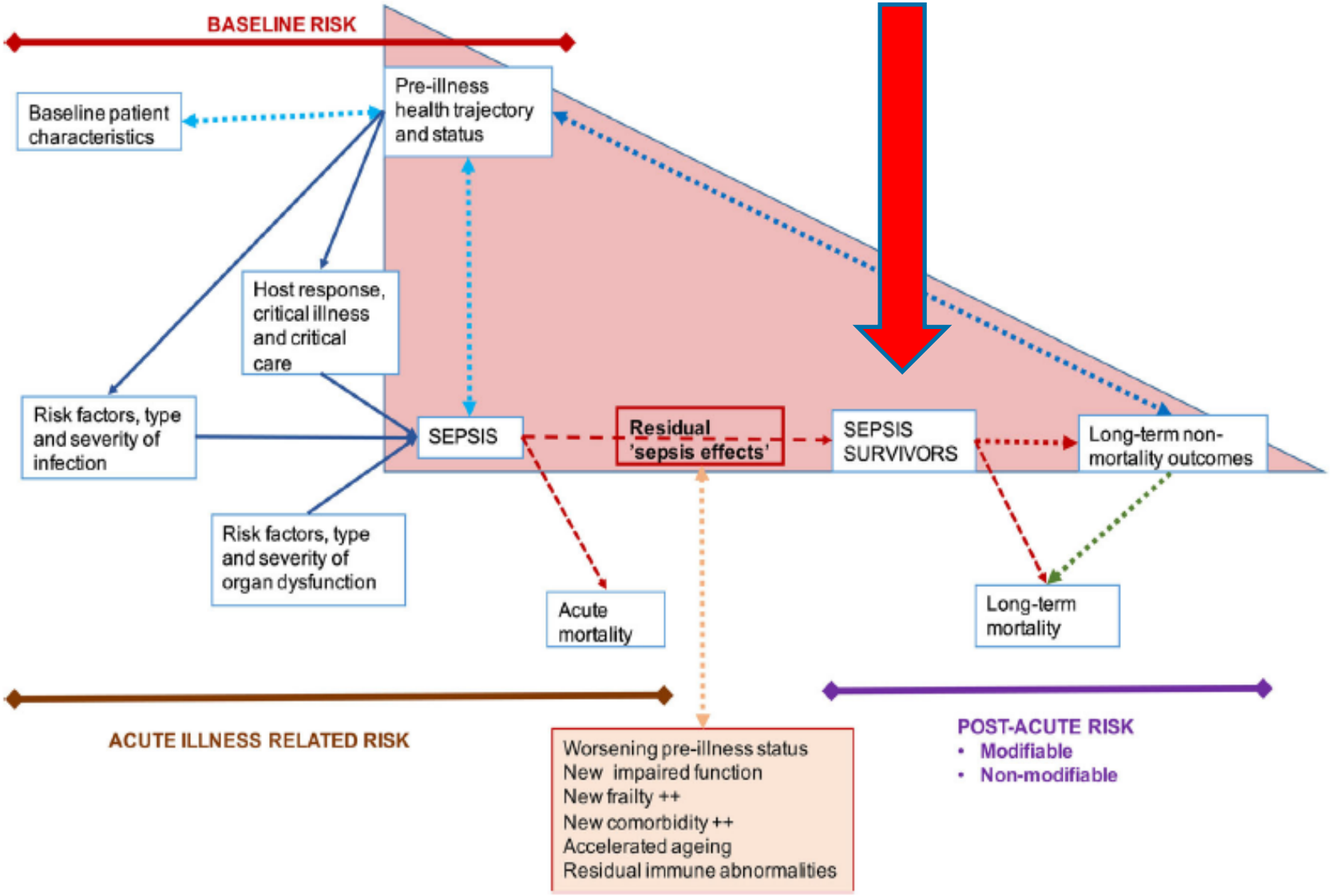


Long-Term Consequences of Sepsis

Neuropsychological impairment
Physical impairment
Sepsis-induced inflammation and cardiovascular risk
Sepsis-induced immunosuppression
Long-term health-related quality of life
Healthcare resource utilization
Long-term mortality

Maley et al Clin Chest Med 2016

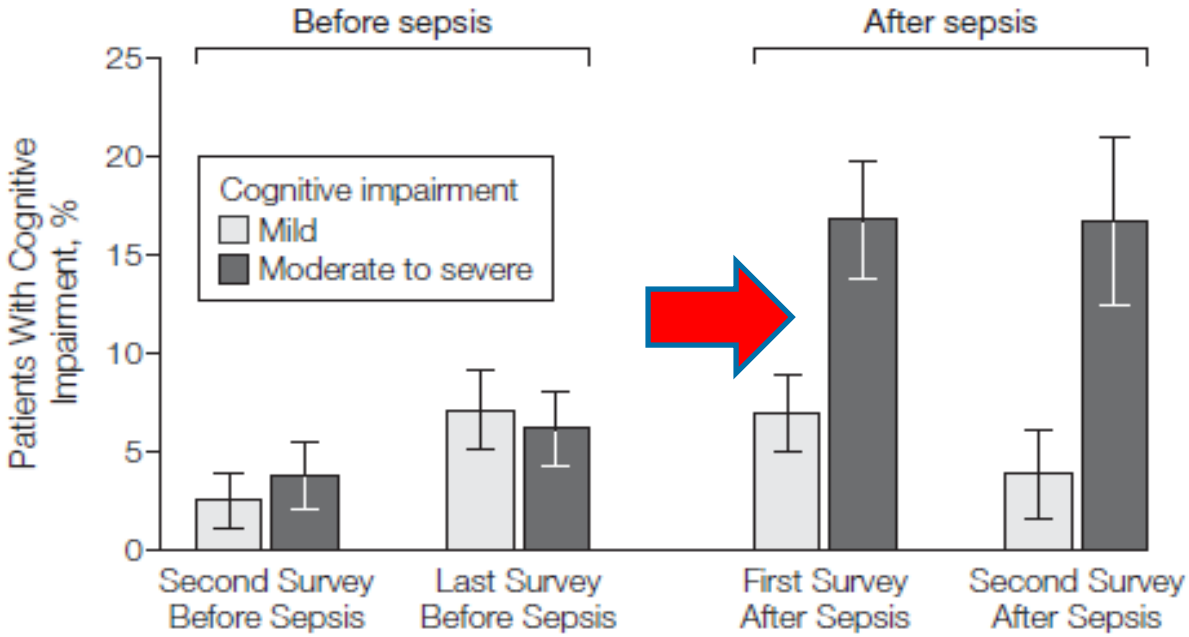
Modify What is Modifiable; Manage What is Not



Shankar Hari et al Curr Infect Dis Rep 2016

Cognitive Impairment after Sepsis

Figure 2. Cognitive Impairment Among Survivors of Severe Sepsis at Each Survey Time Point



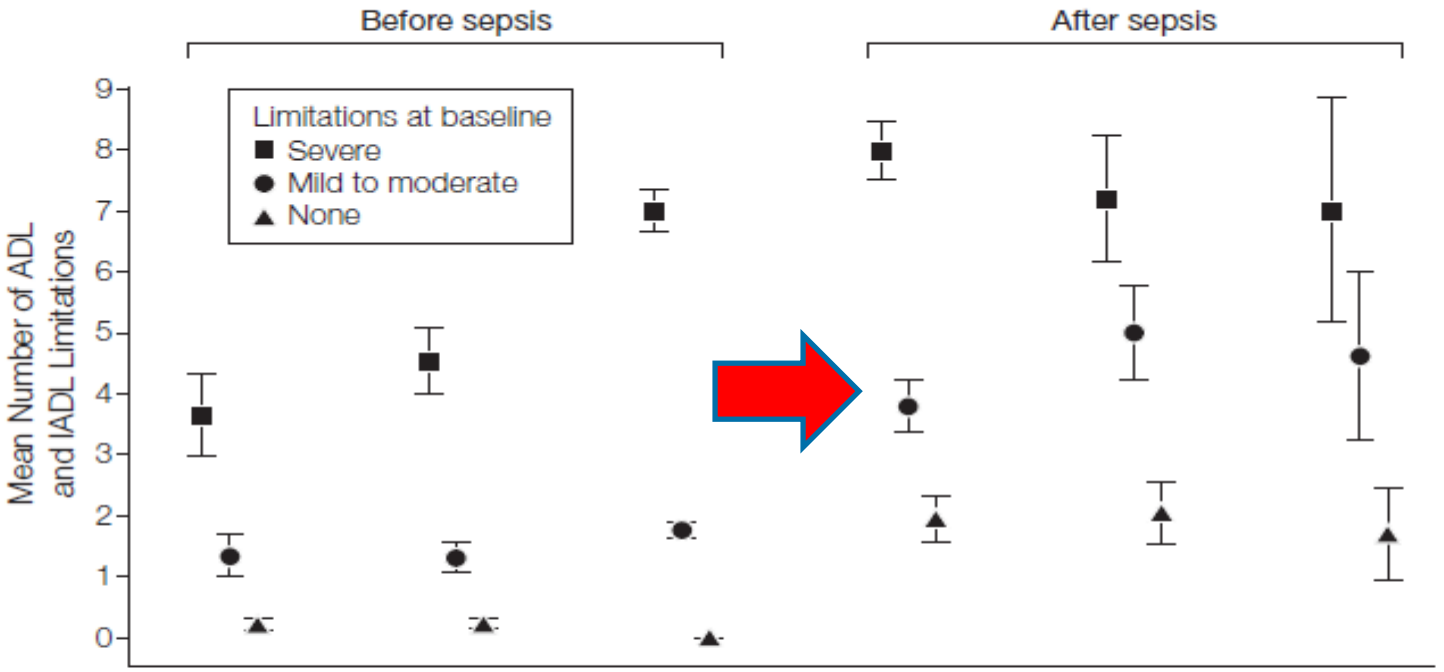
	Second Survey Before Sepsis	Last Survey Before Sepsis	First Survey After Sepsis	Second Survey After Sepsis
Time to sepsis admission, median (IQR), y	−3.1 (−3.7 to −2.7)	−1.1 (−1.7 to −0.7)	0.9 (0.4 to 1.4)	2.8 (2.3 to 3.4)
No. of patients	484	623	623	288

Error bars indicate 95% confidence intervals (CIs); IQR, interquartile range.
Interpretive Example: Compared with stable rates before severe sepsis, the prevalence of moderate to severe cognitive impairment increased from 6.1% (95% CI, 4.2%-8.0%) before severe sepsis to 16.7% (95% CI, 13.8%-19.7%) at the first survey after severe sepsis ($P < .001$ by χ^2 test; Table 2).

Iwashyna et al JAMA 2010

Functional Impairment after Sepsis

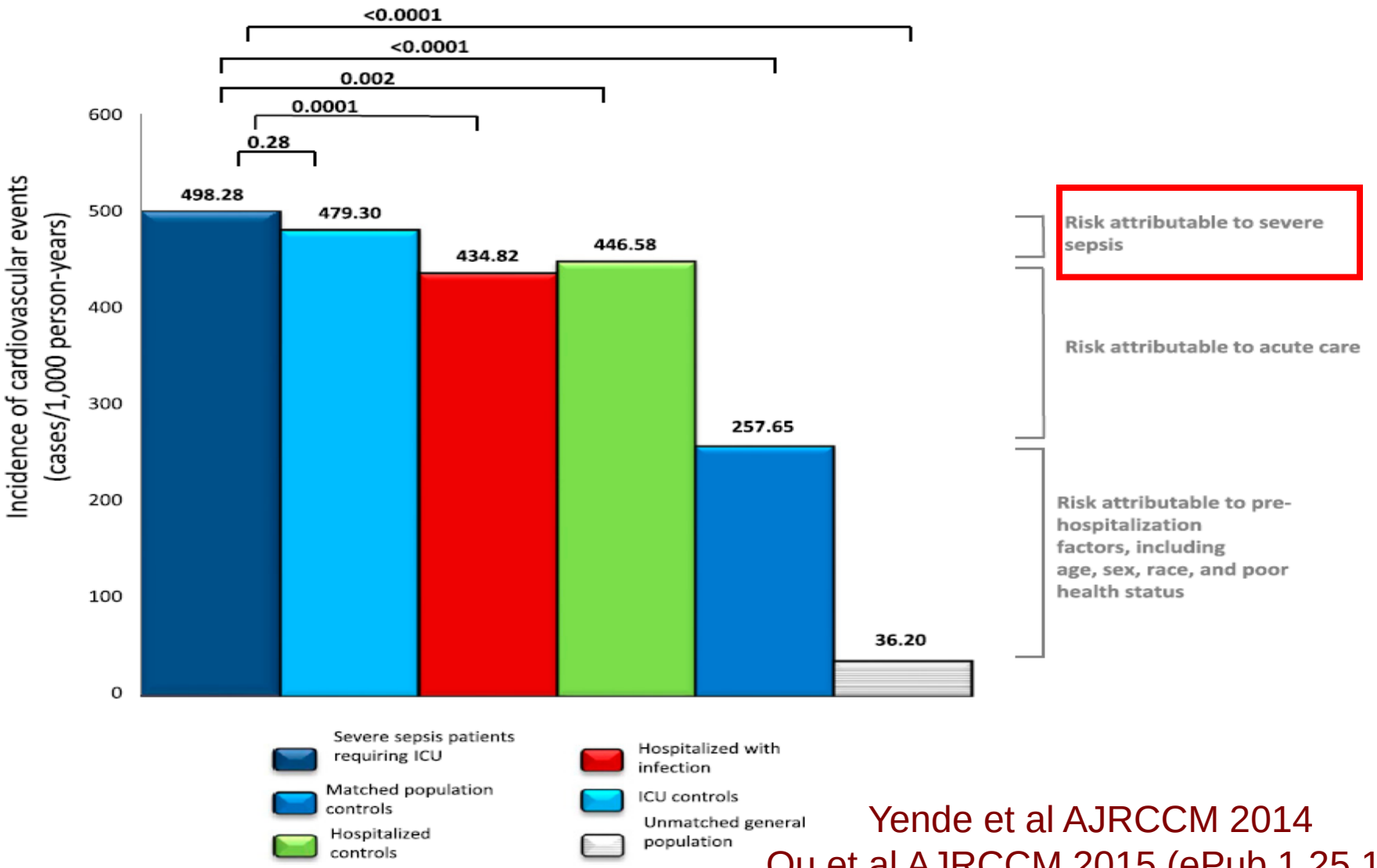
Figure 3. Functional Trajectories by Baseline Functioning



	Third Survey Before Sepsis	Second Survey Before Sepsis	Last Survey Before Sepsis	First Survey After Sepsis	Second Survey After Sepsis	Third Survey After Sepsis
Time to sepsis admission, median (IQR), y	–5.2 (–5.6 to –4.7)	–3.1 (–3.7 to –2.7)	–1.1 (–1.7 to –0.7)	0.9 (0.4 to 1.4)	2.8 (2.3 to 3.4)	5.2 (4.5 to 5.5)
No. of patients, by baseline physical functioning						
Severe limits	87	127	159	159	42	14
Mild to moderate limits	105	151	195	195	93	28
No limits	142	206	269	269	153	56

Iwashyna et al JAMA 2010

Cardiovascular Risk after Sepsis



Yende et al AJRCCM 2014
Ou et al AJRCCM 2015 (ePub 1.25.16)

Sepsis-Induced Immunosuppression
Viral Reactivation after Sepsis

Virus	Septic	Critically-Ill Non-Septic	Healthy Controls
	No. positive[†]/No. tested (%)		
CMV*	86/356 (24.2)	1/89 (1.1)	0/165 (0)
EBV	287/539 (53.2)	18/149 (12.1)	6/165 (3.6)
HSV	76/538 (14.1)	2/150 (1.3)	0/165 (0)
HHV-6	56/539 (10.4)	1/150 (0.7)	7/165 (4.2)
TTV[‡]	179/231 (77.5)	33/55 (63.6)	98/165 (60.1)
JC**	85/238 (35.7)	10/42 (23.8)	
BK**	35/237 (14.3)	4/42 (9.5)	
Any Virus	432/560 (77.1)	62/161 (38.5)	104/165 (63.0)
>1 Virus	239/560 (42.7)	9/161 (5.6)	9/165 (5.5)

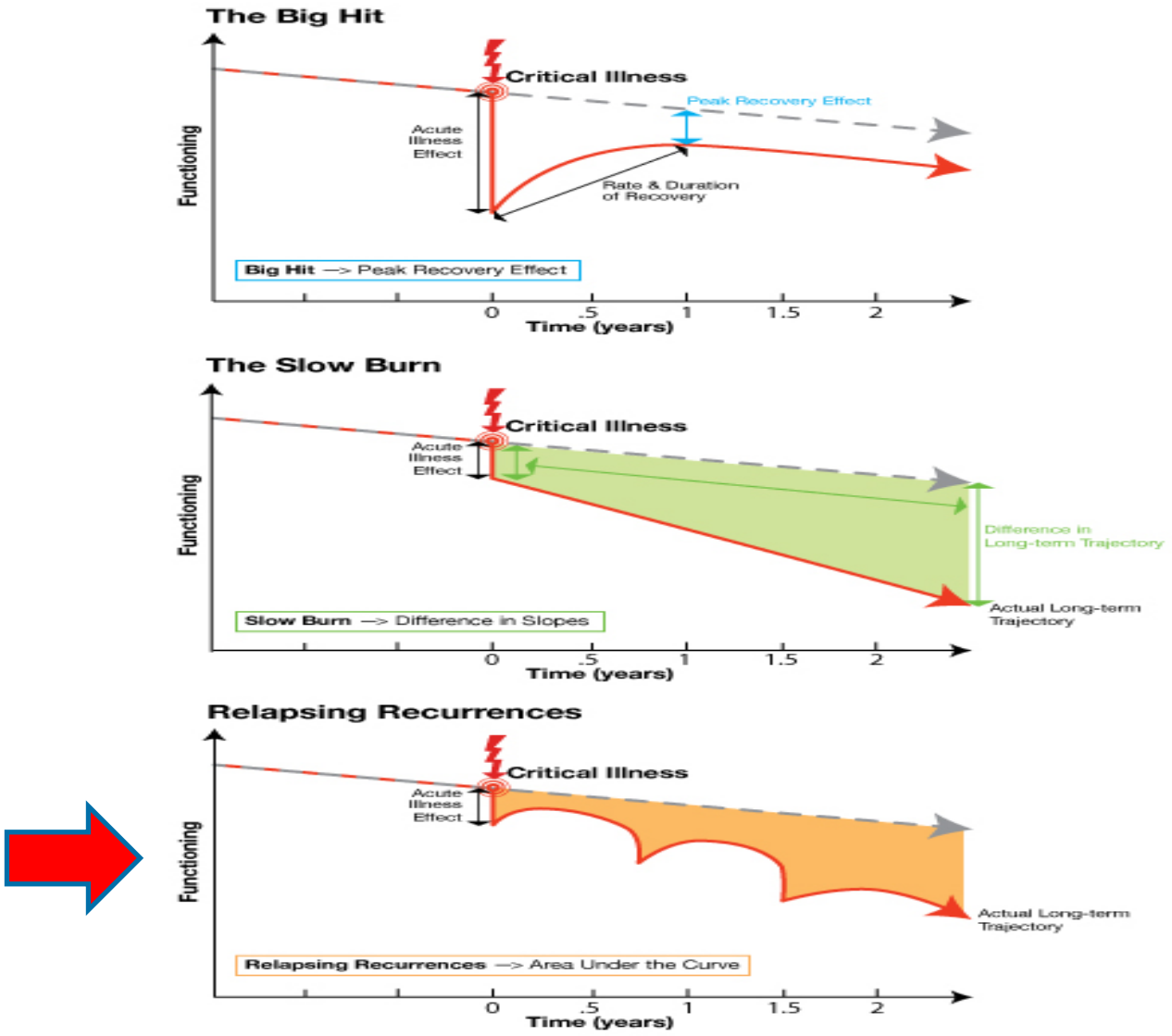
[†]Except where indicated, No. positive reflects the number of patients who tested positive in either whole blood or plasma or both. No. tested represents the total number of patients tested.
*Results are from CMV seropositive patients only.
[‡]Tested in plasma only.
**Tested in urine.
doi:10.1371/journal.pone.0098819.t002

Walton et al 2014

PLOS ONE

Hospital Readmission after Sepsis

The Uncertain Functional Trajectory Post-Sepsis and the Readmission Hypothesis



Rate and Timing of 30-Day Hospital Readmission After Sepsis

Study	Population	30-day rate	Timing
Elixhauser et al.	Septicemia (N=696,122)	21.0	--
Liu et al.	Sepsis (N=5479)	17.9	11 days
Prescott et al.	Elderly severe sepsis survivors (N=1083)	26.5	--
Ortego et al. *	Septic shock (N=269)	23.4	7 (3 – 15)
Jones et al. *	Sepsis (N=1268)	27.0	13 (6 – 21)
Jones et al. *	Severe sepsis (N=2352)	26.2	11 (5 – 18)
Goodwin et al.	Severe sepsis (43,452)	25.6	--
Donnelly et al.	Severe sepsis (N=216,328)	19.9	--
Chang et al.	Sepsis (N=240,198)	20.4	--
Norman et al.	Severe sepsis (N=633,407 Medicare) survivors	28.7	--

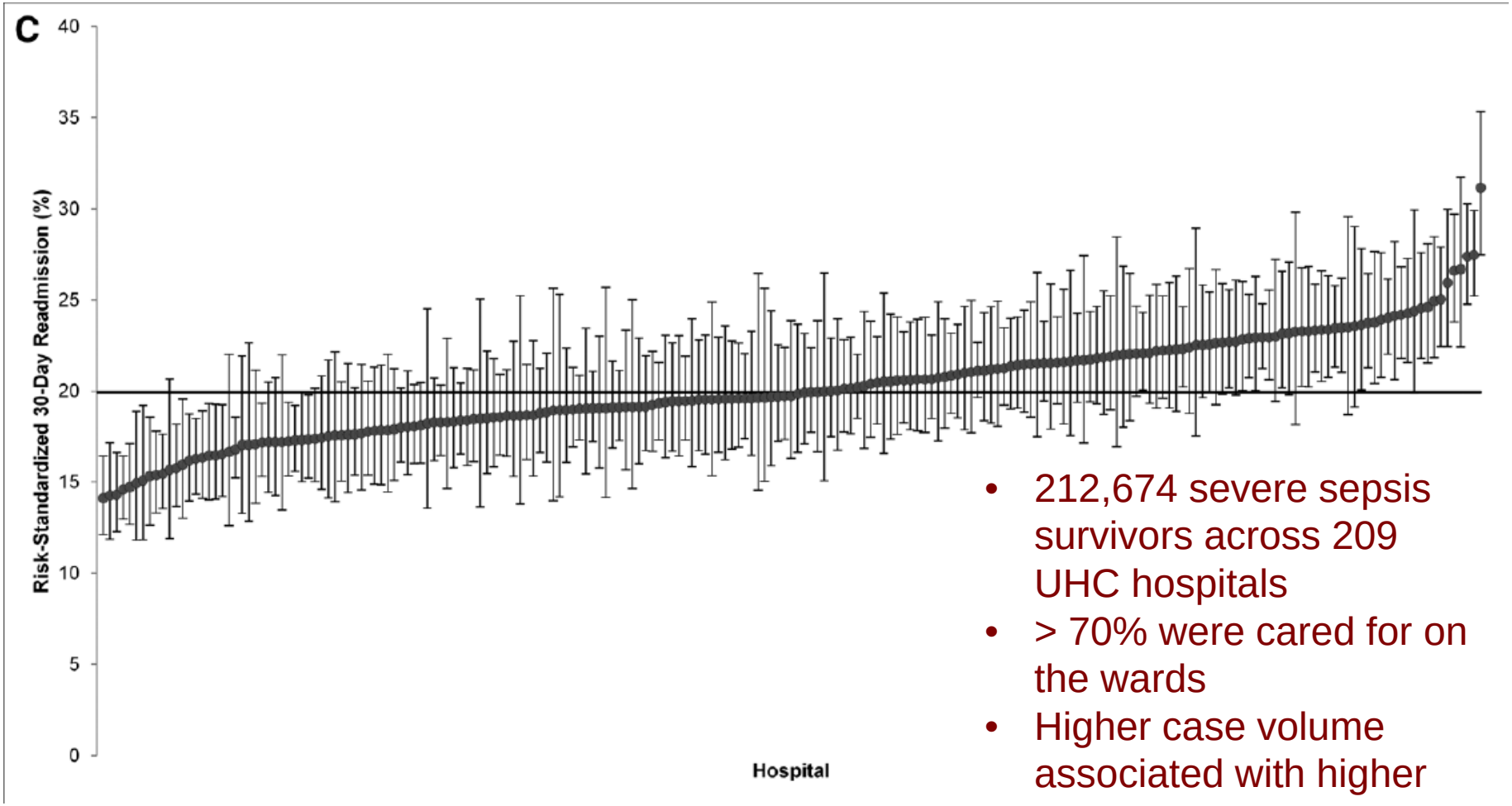
Sepsis is the Biggest Driver of Hospital Readmissions

Table 1. High-volume conditions ranked by rate of readmission for all causes within 30 days, 2013

Rank	Principal diagnosis for index hospital stay	Number of index admissions	Number of all-cause readmissions	Aggregate cost of readmissions, $ millions	Rate of all-cause readmission
Total index admissions for any cause		**28,124,869**	**3,900,556**	**52,398**	**13.9**
1	Congestive heart failure, non-hypertensive	782,079	183,534	2,728	23.5
2	Schizophrenia and other psychotic disorders	366,256	83,245	772	22.7
3	Respiratory failure, insufficiency, arrest (adult)	290,892	62,684	961	21.5
4	Diabetes mellitus with complications	486,886	99,108	1,204	20.4
5	Acute renal failure	431,452	87,537	1,190	20.3
6	Chronic obstructive pulmonary disease and bronchiectasis	570,077	114,067	1,384	20.0
7	Complication of device, implant or graft	581,289	111,838	1,973	19.2
8	Alcohol-related disorders	261,072	50,081	366	19.2
9	Septicemia	1,011,496	191,156	3,154	18.9
10	Fluid and electrolyte disorders	358,640	65,704	839	18.3

Courtesy of Hallie Prescott

Readmission Risk After Severe Sepsis Varies Dramatically Across Hospitals



- 212,674 severe sepsis survivors across 209 UHC hospitals
- > 70% were cared for on the wards
- Higher case volume associated with higher readmission rates

Donnelly et al Crit Care Med 2015

WHY? INFECTION

Patient	Initial Hospitalization Infection	Readmission Infection (Chart)	New or Recurrent/ Unresolved
1	C. difficile	Culture negative sepsis	New
2	Intraabdominal abscess and bowel perforation	Pneumonia	New
3	Neutropenic sepsis, c. difficile	Hepatic abscess	New
	Culture negative sepsis	Urinary tract infection and C. difficile	New
	MSSA and VRE CLABSI	Klebsiella CLABSI	New

36	C. difficile, hospital-acquired pneumonia	C. difficile	Recurrent/ unresolved
37	Pneumonia	Pneumonia	Recurrent/ unresolved
38	Pneumonia (fungal)	Pneumonia (fungal)	Recurrent/ unresolved
39	Pseudomonal bacteremia	Citrobacter bacteremia (cultures from discharge of initial hospitalization)	Recurrent/ unresolved
40	Pneumonia	Pneumonia	Recurrent/ Unresolved

- 69% of unplanned readmissions attributable to infection via chart review
- 51% of infection-related readmissions were categorized as recurrent/unresolved
- 19% are same site and same organism

Sun et al CCM 2016
DeMerle et al CCM 2017

Readmissions Unrelated to Prior Hospitalization	
Related to comorbid condition	14 (22.2)
Readmission Potentially Related to Prior Sepsis Hospitalization	
Infection	29 (46.0)
Cardiovascular and thomboembolic	11 (17.5)
Acute kidney injury	4 (6.4)
Complications of devices	2 (3.2)
Other	3 (4.8)
	Total: N = 63

Ortego et al CCM 2015

Most Frequent 90-Day Readmission Diagnoses After Sepsis

Sepsis	15.0%	↑
Congestive heart failure	12.9%	↓
Pneumonia	8.2%	
Acute renal failure	7.8%	↑
Rehabilitation	6.6%	↓
Respiratory failure	5.8%	↑
Complication of device, implant, or graft	4.7%	
COPD exacerbation	4.4%	
Aspiration pneumonitis	4.2%	↑
Urinary tract infection	3.9%	

Prescott et al JAMA 2015

Most Frequent Readmission Diagnoses After Sepsis	
Sepsis	15.0%
Congestive heart failure	12.9%
P	
A	
R	
R	
C	
C	
Aspiration pneumonitis	4.2%
Urinary tract infection	3.9%

42% of readmission diagnoses were for Ambulatory Care Sensitive Conditions

The Big 3:

Infection/Sepsis

Fluid Balance (Heart failure/Renal failure)

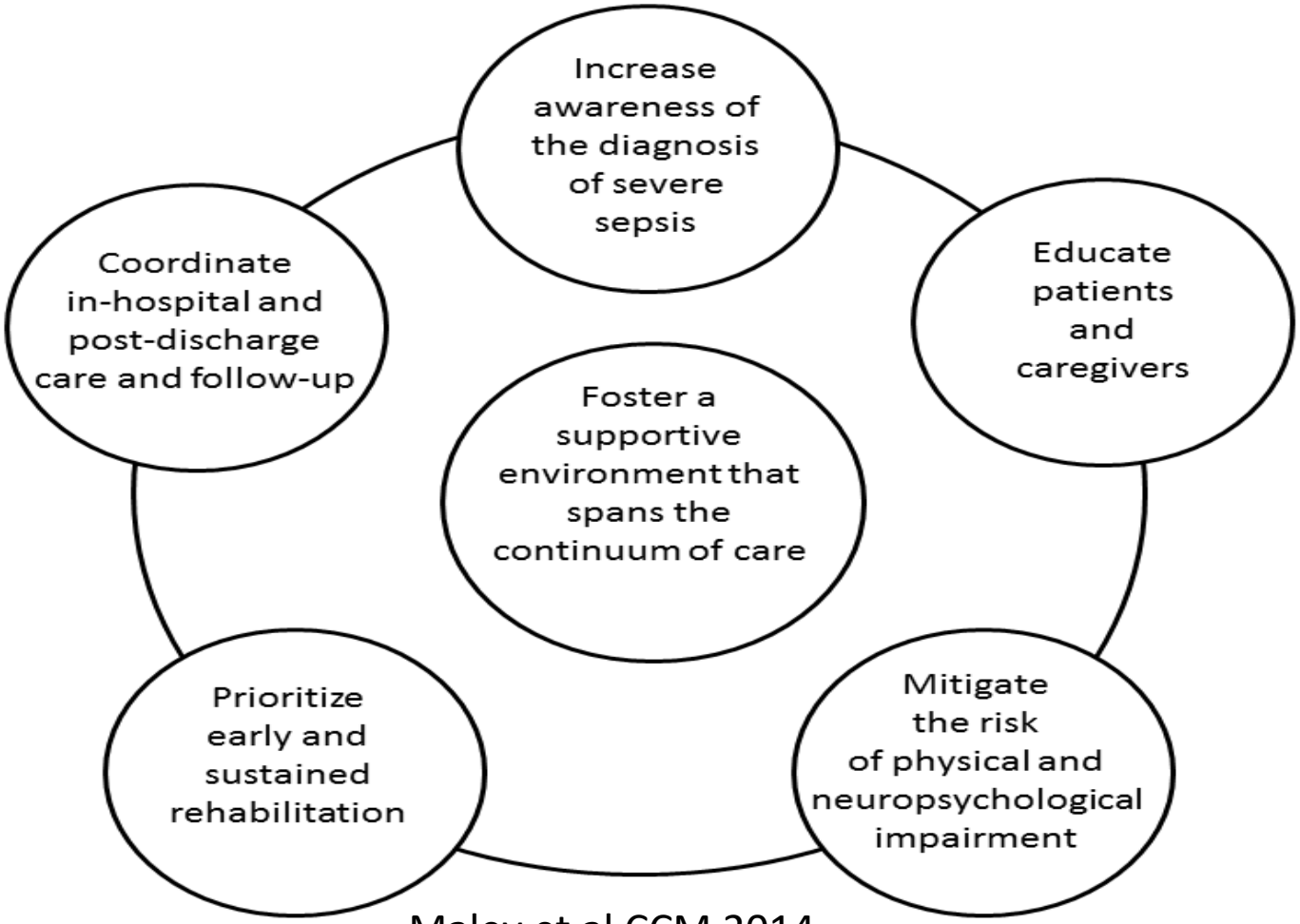
Respiratory (Aspiration pneumonia, COPD)

What Do Patients Look Like At Readmission?

ED Presentation of Unplanned Hospital Readmissions	
Fever upon presentation	25.0%
White blood cell count, initial	10 (7 – 14)
Respiratory rate, initial	18 (16 – 20)
Heart rate, initial	106 (88 – 116)
Sepsis	63.8%

Sun et al CCM 2016

Moving Forward: Forge The Alliance



Maley et al CCM 2014

- **Empower survivors, their caregivers, and their providers**
- **Start by calling it what it is: sepsis**

Moving Forward: Optimize Care Coordination

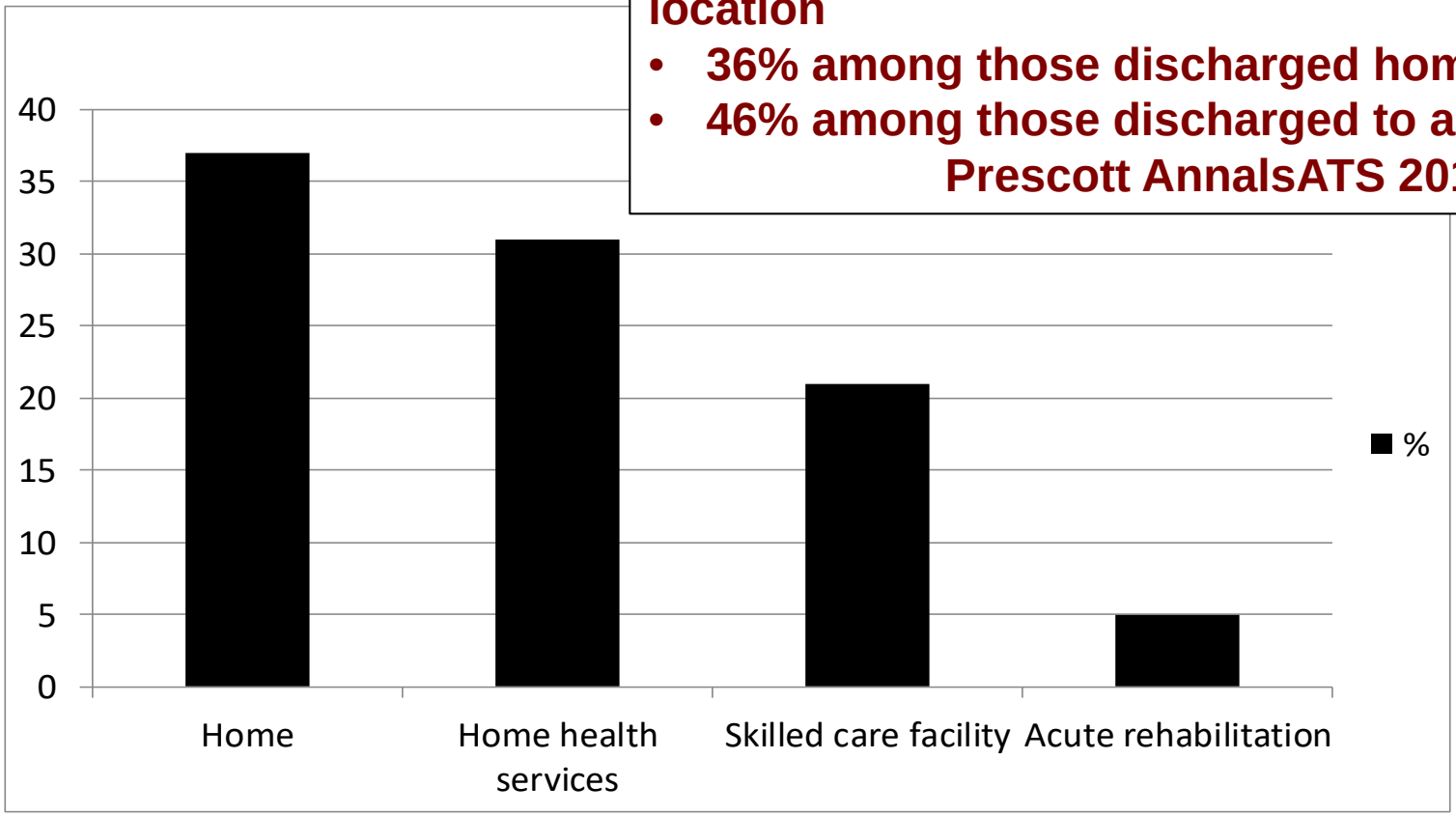
Coordination of follow-up was absent or too late in **two-thirds** of UPHS septic shock survivors who were readmitted within 30 days

- Ortego et al Crit Care Med 2014

Readmission risk, and cause, differ by discharge location

- **36% among those discharged home**
- **46% among those discharged to a nursing facility**

Prescott AnnalsATS 2017



UPHS Data 2010 – 2015 for Sepsis Survivors

A Sepsis-Specific Approach

Raise Awareness

As a sepsis survivor, @NAME@ is at high risk for the following:
- Physical and cognitive impairment post-sepsis
- 30-day-all cause hospital readmission, with general risk in the 20-25% range at Penn.

Schedule timely follow-up and inform care providers

Recommend:
1. Follow-up within 7-10 days of discharge with primary care physician, including information re: patient's sepsis course, source, and antibiotic needs included in the discharge summary

Mitigate and manage new or worsening impairments

2. Assessment by physical and occupational therapy for home physical therapy or acute rehabilitation prior to discharge

3. Assessment of ability to manage medication list prior to discharge, given risk of cognitive impairment after sepsis, with recommendation to engage caregivers in healthcare needs if patient deemed high-risk for inability to manage medications and engage home health services

Be vigilant for new or recurrent infections, as 2 out of 3 survivors who present to the ED present with sepsis again

4. Timely evaluation of signs and symptoms suggestive of a recurrent or new infection, as the majority of 30-day hospital readmissions are due to a new or recurrent infection

Pair with evidence-based readmission reduction strategies

Acknowledgments

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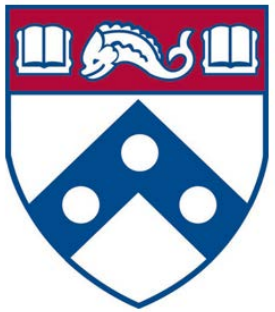
- Kathy Bowles
- Shivani Shah
- Partha Deb
- Stanley Moore
- Samuel Jackson

SCCM & Thrive Team

- Jack Iwashyna
- Hallie Prescott
- Carol Thompson
- Adair Andrews
- And many others



Improving Sepsis Outcomes

Roger Chang, MD

Trish Cruz, RN

Kang Hsu, MD

- Founded in 1929 by Sisters of St. Joseph of Orange (not-for-profit)
- One of the Largest hospitals in Orange County, CA = 496 licensed beds
- 1st in Orange County and 4th in the State for surgical volume (26,462 proc.)
- Busy ED with 80,000+ visits each year
- ≈ 5,000 babies delivered each year
- Employees: ≈ 3,400
- Physicians on Staff: ≈ 1,100
- Volunteers: ≈ 800
- 24/7 Intensivists in Critical Care
- 24/7 Hospitalists in Med-Surg units
- One of 6 designated psychiatric IP facilities in county
- Member of the Providence St. Joseph Health

Providence St. Joseph Health

St.JosephHealth
St. Joseph Hospital
A member of the St.Joseph Hoag Health alliance

Strategies to Improve Sepsis Mortality

- Sepsis Coordinator.
- 24/7 Sepsis RN.
- Standardized order sets used every time.
- Checklist.
- Readily available resources.
- Consistent method to obtain and disseminate data.
- Align staff goals and physician contracts with strategic goals.

747 Lives Saved!

Readmission Prevention

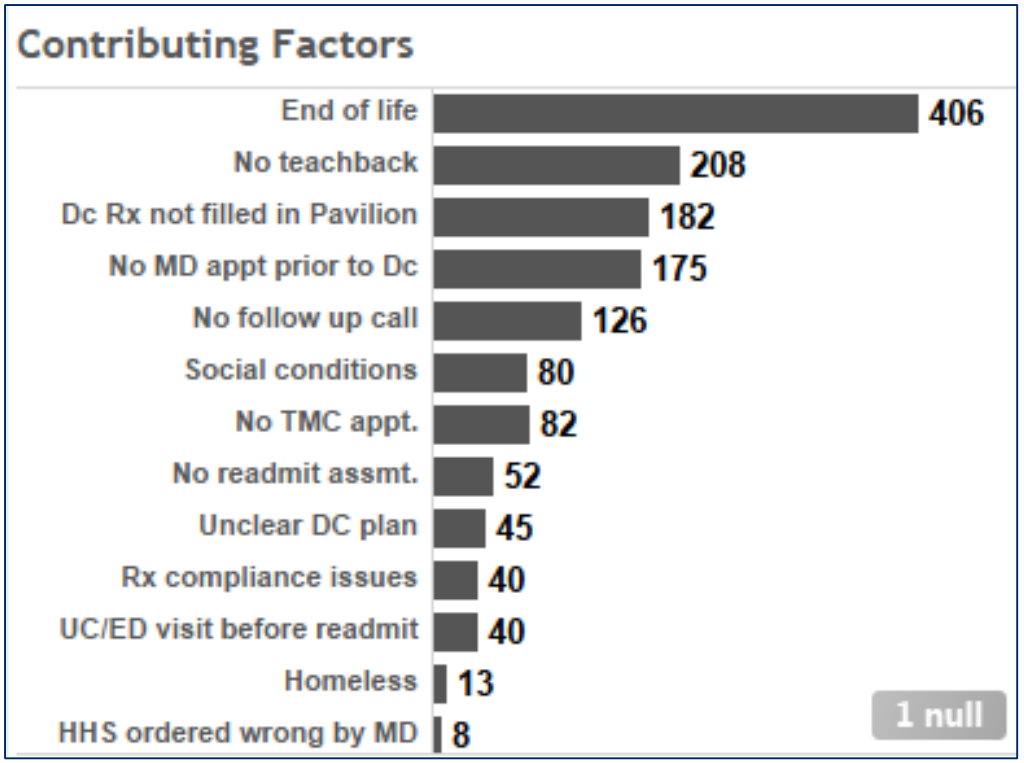
- ☒ 1. Discharge summary completed within 48 hours of discharge
- ☒ 2. Send completed discharge summary to post care provider/PCP within 48 hours of discharge
- ☒ 3. **Follow-up appointment scheduled within 7 days post discharge with PCP and/or specialist**
- ☒ 4. Discharge phone call by clinician within 48 hours
- ☒ 5. Involve pharmacy in medication reconciliation before discharge
- ☒ 6. Use Teach Back (or health literacy tool) to give discharge instruction
- ☒ 7. Partner with community organizations

Readmission Bundle Grid

LOW (0-6%)	MEDIUM (7-12%)	HIGH (14-25%)	VERY HIGH (26-43%)
LACE < 7	LACE 7 - 10	LACE 11 -14	LACE >=15
Medication Reconciliation on Discharge and at follow-up visit			
Hotline Phone # for post d/c questions			
Home visit for all heart failure patients as appropriate			
Appointment as ordered by physician	Appointment <=14 days	Appointment within 5 days (Preferably TMC)	
		Follow-up call within 48 hours	Follow-up call 24 - 48 hours
			Consider Palliative Care Consult
		Complex Case Conference	Complex Case Conference

Weekly Readmission Review

- Home Health.
- Case Management.
- HF Nurse Navigator.
- Dedicated hospitalist.
- Quality Management.
- Transition Medical Clinic.
- Orthopedics Nurse Navigator.
- Call Center.



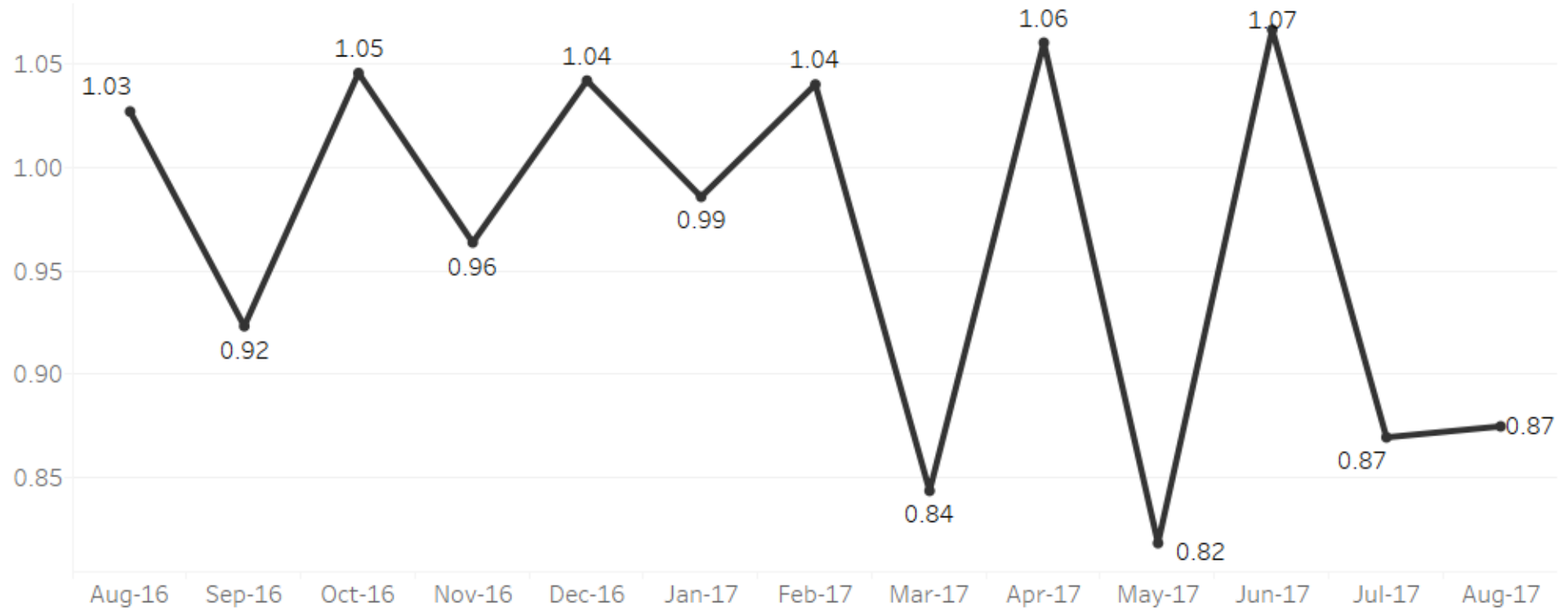
Transition Medical Clinic (TMC)

- Located across the street from the hospital.
- Appointments made while the patient is still in house (goal to be seen within 3 days).
- Hospitalists and DC nurses explain the need to patients.
  - You're not sick enough to need to be in the hospital, but you're not well yet…
- Reminder calls the day prior to appointment.
- Infectious Disease physicians next door.
- Blood draws available on site, radiology on campus.
- The Emergency Department and Skilled Nursing Facilities can refer.
- Free transportation. Telehealth in development.

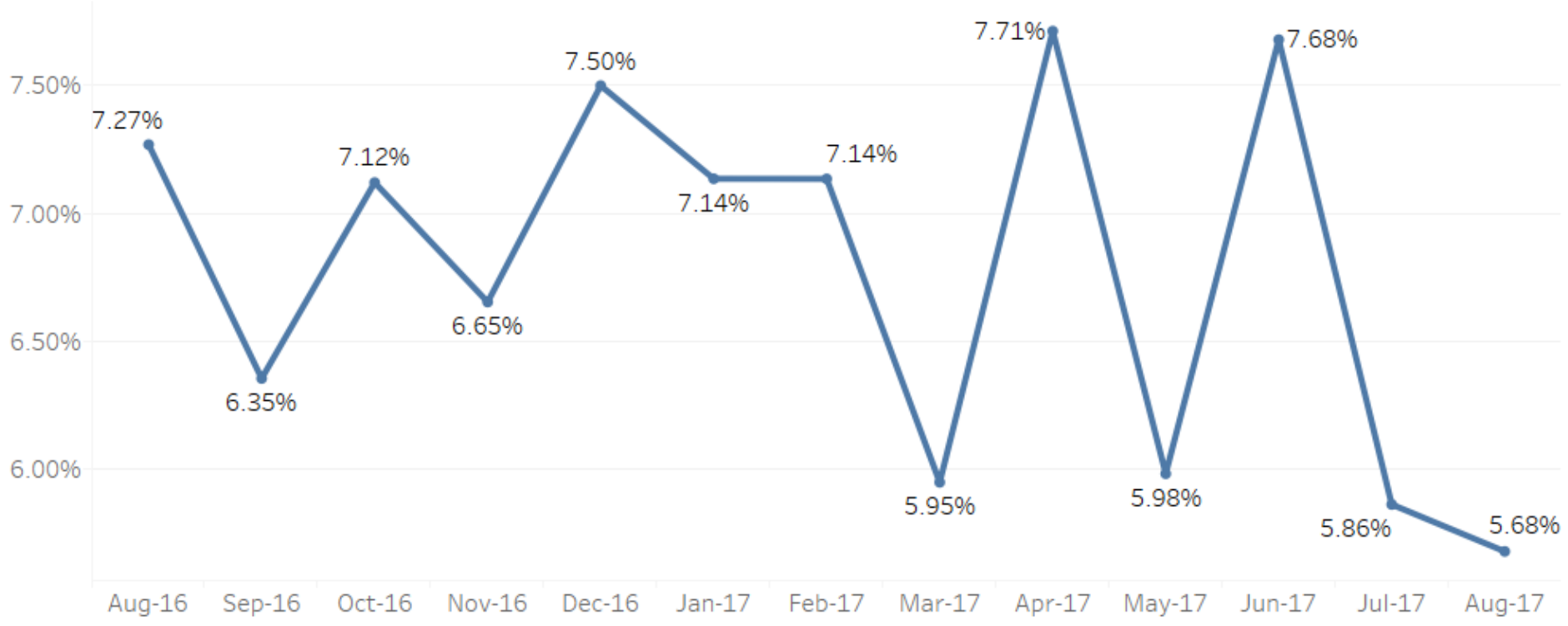
TMC: What to expect?

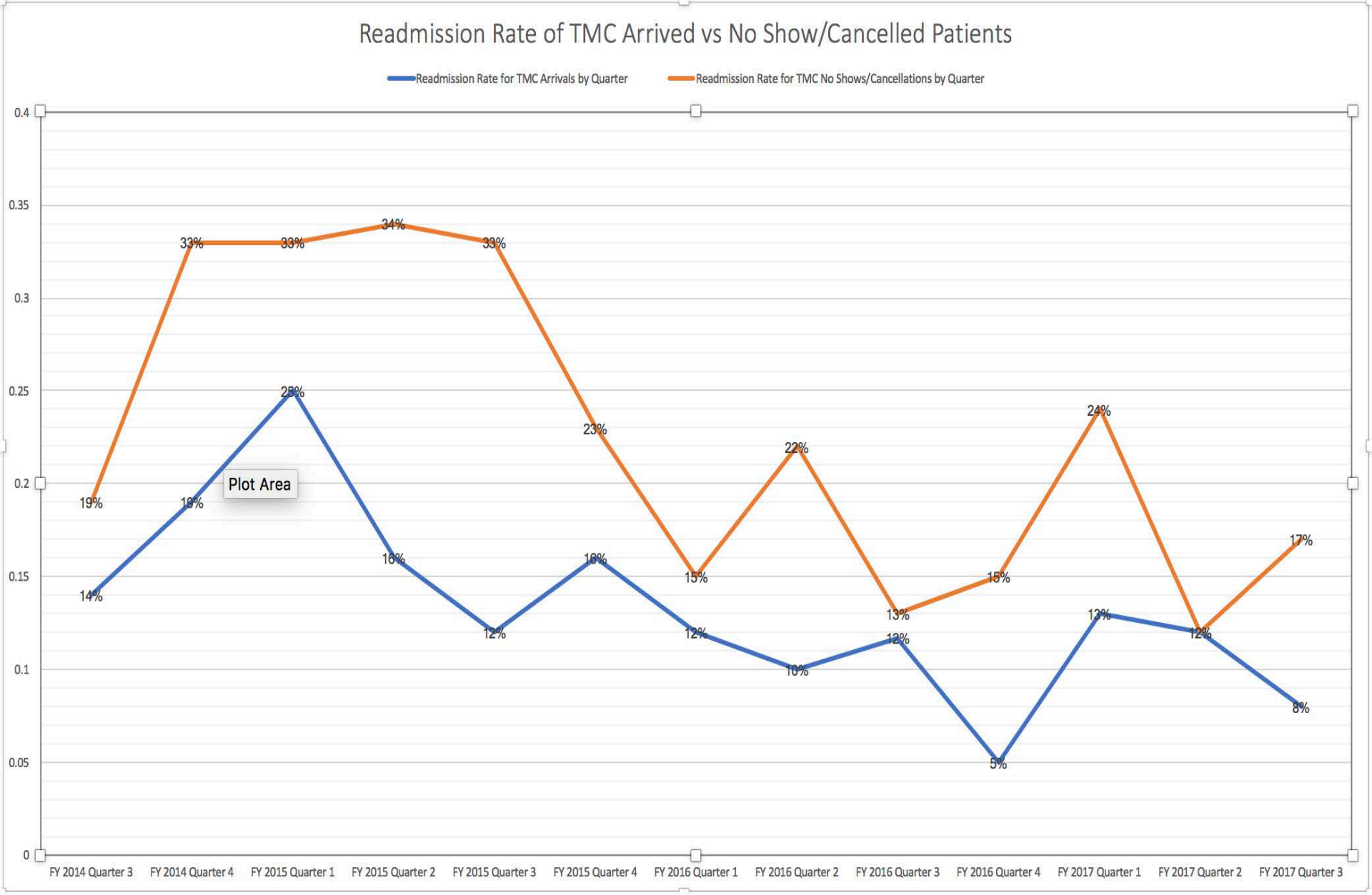
- 45 – 60 minute appointment.
- Dedicated Pharmacist.
- Physician with dedicated Case Manager/Social Worker.
  - Six hospitalists who rotate.
- Follow up on labs, cultures, pathology, and imaging.
- For patients with infection/sepsis we always ask about diarrhea to screen for *C. diff.*
- Advanced Care Planning.
  - Available in the clinic and also can go to the patient's home.
- Printed summary of TMC visit in lay terms provided to patient.
- TMC physician will call PCP/specialist as needed to expedite follow-up or procedural appointments.

Risk Adjusted Overall Readmissions



Overall Readmission Rates





Insights

- Patients don’t want multiple follow-up appointments.
- It takes networking and collegiality to make a Transitional Medical Clinic succeed.
- Incentivization definitely helps.

Thank you!


"Competition
makes us
Faster;
Collaboration
makes us
Better."

Questions and Answers

Please share your questions for our presenters!

Key Takeaways

- HIINs and hospitals are doing great to work begin to **identify and address the role of sepsis diagnoses in hospital readmissions.**
- It is critical that we continue to **strive to understand the long-term consequences and challenges associated with surviving sepsis**, including making proactive efforts to understand sepsis from the patient's perspective.
- **Addressing sepsis readmissions requires a multidisciplinary, cross-continuum set of interventions that are patient-centered.** Coordination between in-hospital care and post-discharge care is critical.
  - Work with patients and their caregivers to establish a clear post-discharge plan, and help them to achieve it (e.g., making appointments, arranging for transportation).
  - A transitional clinic model can facilitate timely follow-up post-sepsis, as well as ensure the clear identification and/or reinforcement of next steps.
- **Continued education of patients, family members, caregivers, and providers is necessary** to ensure that the early signs and symptoms of sepsis and septic shock are known and understood for timely evaluation and treatment.

Participant Polling

Please share your feedback!

CMS Comments

Latrail Gatlin

Shelly Coyle

Arndreya Price

MedStar Health Video:
"What YOU Need to Know about Sepsis"

Meet Armando Nahum and Lt. Col. Steven Coffee, two fathers whose experiences with sepsis taught them two things:

- Know the signs of sepsis; and
- When you see something, say something.

https://www.youtube.com/watch?v=HpTnBZnZCgg

Upcoming Events

NCD Weekly Pacing Event

Thursday, January 4, 1:00 – 2:00 PM ET

Audience: HIIN Leaders, Improvement Advisors, and Hospitals

Topic: SSI Reductions

PfP Office Hours

Thursday, December 14, 1:00 – 2:00 PM ET (in lieu of a Pacing Event)

Audience: HIIN Leaders and Staff

Topic: Evaluating Progress Since the October All Partners Meeting

Wednesday, December 20, 1:00 – 2:00 PM ET

Audience: HIIN Leaders and Staff

Topic: Opioid Knowledge Assessment and A3s

PFE Learning Event

Tuesday, December 12, 2:00 – 3:00 PM ET

"The Patient and Family Perspective on Hospital Readmissions"

Please see the weekly HIINsider or visit the Community of Practice site for registration information as it becomes available.