Lessons Learned:
How a Definition Defines Sepsis Outcomes

A WEBINAR PRESENTED ON JUNE 28, 2023

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Association of Clinical Documentation Integrity Specialists

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Presented By

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***Stacia Gandee, RHIA, CCS, CDIP, LSSYB*,** has been a clinical documentation specialist (CDS) since February 2017 and was quickly promoted to the specialized role of Clinical Validation CDS in 2019, and transitioned to the manager role in 2020. Prior to this, she has worked as a coder as well as a contract coding consultant. Stacia is a member of the sepsis committee and has attended national conferences to ensure her CDI Program is optimizing impact in patient care, documentation, and coding of sepsis. Stacia brings ambition, knowledge, and coding expertize that is instrumental to organization-wide change in practice as it relates to the integrity of clinical documentation and coding.

Learning Outcomes

- At the completion of this educational activity, the learner will be able to:
  - Explain the important differences between the sepsis-2 and sepsis-3 definitions
  - Understand the quality measures associated with sepsis
  - Evaluate their organization’s data to see how their definitions affect quality performance

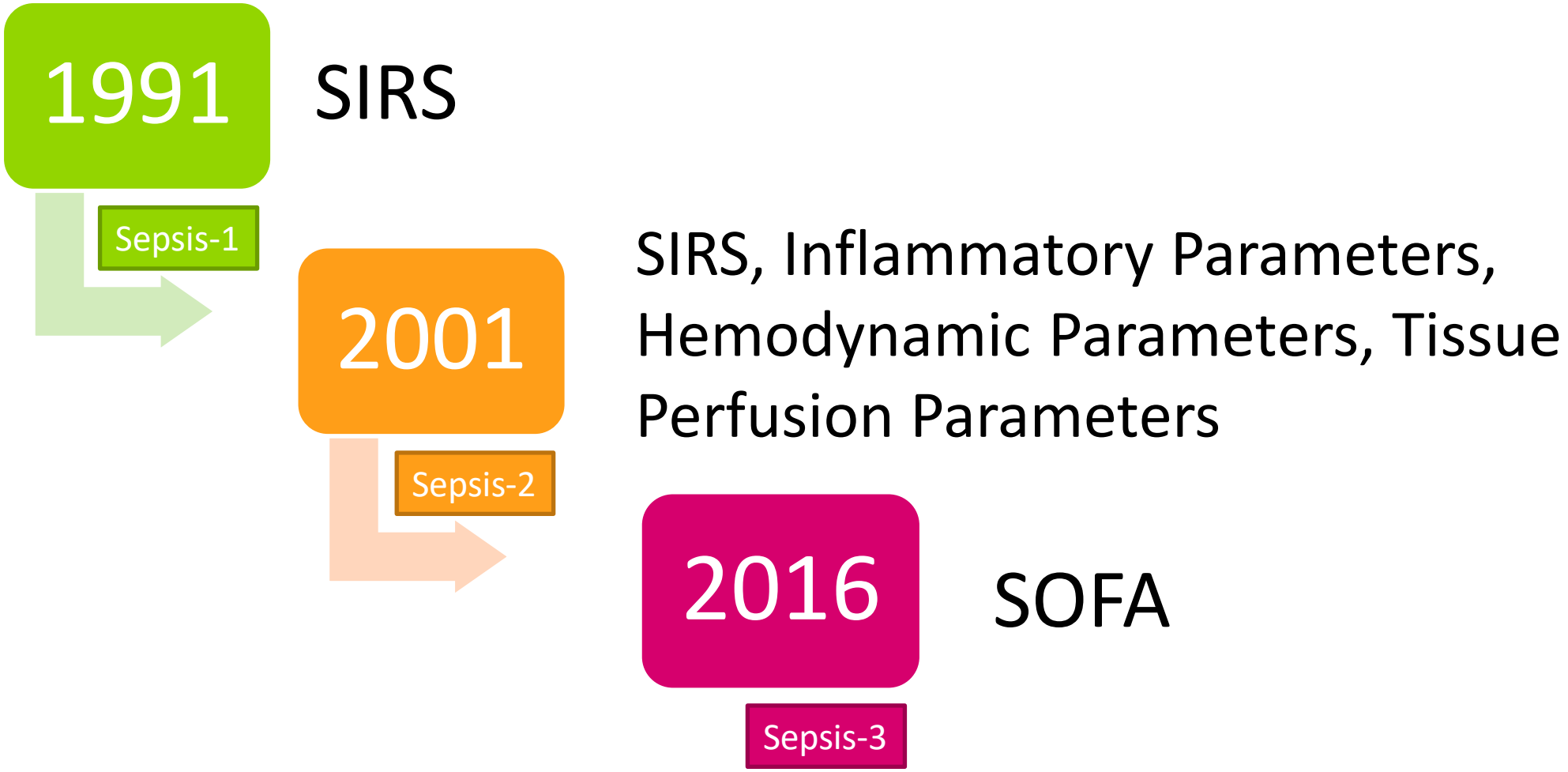
Sepsis Definition

Sepsis is a systemic response to infection, manifested by two or more of the SIRS criteria as a result of infection.
Continuum: Infection-> Sepsis-> Severe Sepsis-> Septic Shock

Sepsis is defined as a pathological process induced by a micro-organism with an expanded list of signs and symptoms supporting sepsis is present may better reflect the clinical response to infection
Continuum: Infection-> Sepsis-> Severe Sepsis-> Septic Shock

Sepsis is a life-threatening organ dysfunction caused by dysregulated host response to infection.
Continuum: Infection-> Sepsis-> Septic Shock

Sepsis Criteria



Sepsis-2

vs

Sepsis-3

Early Identification

- Starts with SIRS. Although non-specific, has been shown to indicate potential for deterioration

Lower Severity

- Approx. half of patients admitted are admitted with “simple sepsis” only[1]

3 Stages

Polling Question 1

- Which sepsis definition does your organization use?
  - Sepsis-2
  - Sepsis-3
  - Combination of both criteria (SIRS plus other indicators required to identify sepsis)
  - Start with sepsis-2 in Emergency Department but sepsis-3 in the hospital setting
  - I don’t know

SEP-1 Core Measure

Mission Statement: By providing timely, patient-centered care and making sepsis care more affordable through early intervention, this measure can result in reduced use of resources and lower rates of complications.

Description: This measure focuses on adults 18 years and older with a diagnosis of severe sepsis or septic shock. Consistent with Surviving Sepsis Campaign guidelines, it assesses measurement of lactate, obtaining blood cultures, administering broad spectrum antibiotics, fluid resuscitation, vasopressor administration, reassessment of volume status and tissue perfusion, and repeat lactate measurement.

Rationale: The evidence cited for all components of this measure are directly related to decreases in organ failure, overall reductions in hospital mortality, length of stay, and costs of care

SEP-1 focuses on SEVERE sepsis and septic SHOCK, with 2 sets of bundles[2]: 3HR and 6HR

Within three hours of presentation of severe sepsis:
- Initial lactate level measurement
- Broad spectrum or other antibiotics administered
- Blood cultures drawn prior to antibiotics

AND

within six hours of presentation of severe sepsis. ONLY if the initial lactate is elevated:
- Repeat lactate level measurement

AND

within three hours of initial hypotension:
- Resuscitation with 30 mL/kg crystalloid fluids

OR within three hours of septic shock:
- Resuscitation with 30 mL/kg crystalloid fluids

AND

within six hours of septic shock presentation, ONLY if hypotension persists after fluid administration:
- Vasopressors are administered

AND

within six hours of septic shock presentation, if hypotension persists after fluid administration or initial lactate >= 4 mmol/L:
- Repeat volume status and tissue perfusion assessment is performed

Surviving Sepsis Campaign

Mission Statement: Surviving Sepsis Campaign (SSC) is led by multidisciplinary international experts committed to improving time to recognition and treatment of sepsis and septic shock, which are leading causes of death worldwide.

Description: The Surviving Sepsis Campaign International Guidelines for the Management of Sepsis and Septic Shock provide guidance on the care of hospitalized adult patients with (or at risk for) sepsis, based on summaries and systematic assessments of relevant literature

Rationale: These guidelines are intended to reflect best practice. There are 93 recommendations within the latest guideline (2021) and care bundles published separately from the guidelines

SSC Guidelines Contain Multiple "Time-Based Care", Similar to SEP-1[3]

#5: For patients with sepsis induced hypoperfusion or septic shock, we suggest that at least 30 mL/kg of IV crystalloid fluid be given within the first 3 hours of resuscitation.
#14: For adults with possible sepsis without shock, we suggest a time-limited course of rapid investigation *(including blood cultures)* and, if the concern for infection persists, administer antimicrobials within 3 hours from the time when sepsis was first recognized.
#75: For adults with sepsis or septic shock, we suggest addressing goals of care early (within 72 hours) versus later (72 hours or later)
#93: For adult survivors of sepsis or septic shock receiving mechanical ventilation for > 48 hours or an ICU stay of > 72 hours, we suggest referral to a post-hospital rehabilitation program.

If both SEP-1 and SSC Guidelines are evidence-based best practice, and both include timely care, then what are the differences and why does this matter?

SEP-1

vs

SSC

Includes SIRS

- Starts with SIRS and is included in the diagnosis

Focus: Early Identification

- Core measure focuses on earliest point where sepsis could be present and evaluates if bundle is completed

Reviewed by Public

- Multiple platforms have a public reporting on SEP-1 performance

Impacts Reimbursement

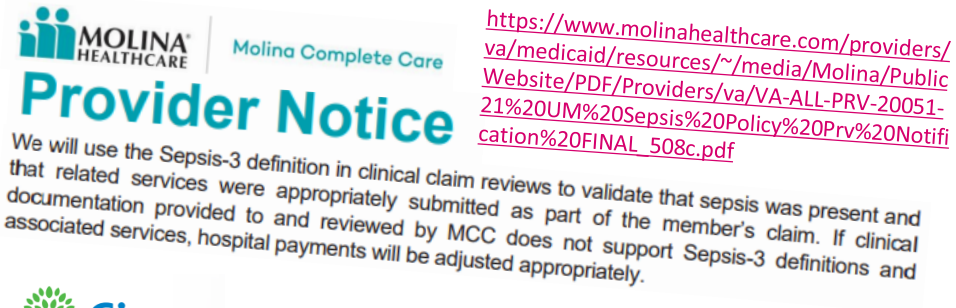
Volume 26, Number 18 • May 22, 2017

Report on MEDICARE COMPLIANCE

Payer Denials Hit Sepsis Amid Conflicting Clinical Protocols; Diagnosis is Doubted

Claim denials are coming in for sepsis from Medicare and commercial payers, fueled by the use of different clinical standards and documentation problems, compliance officials say.

https://assets.hcca-info.org/Portals/0/PDFs/Resources/Rpt_Medicare/2017/rmc052217.pdf?ver%3D2017-05-19-103818-393



MOLINA HEALTHCARE | Molina Complete Care

Provider Notice

We will use the Sepsis-3 definition in clinical claim reviews to validate that sepsis was present and that related services were appropriately submitted as part of the member's claim. If clinical documentation provided to and reviewed by MCC does not support Sepsis-3 definitions and associated services, hospital payments will be adjusted appropriately.

https://www.molinahealthcare.com/providers/va/medicaid/resources/~/media/Molina/PublicWebsite/PDF/Providers/va/VA-ALL-PRV-20051-21%20UM%20Sepsis%20Policy%20Prv%20Notification%20FINAL_508c.pdf

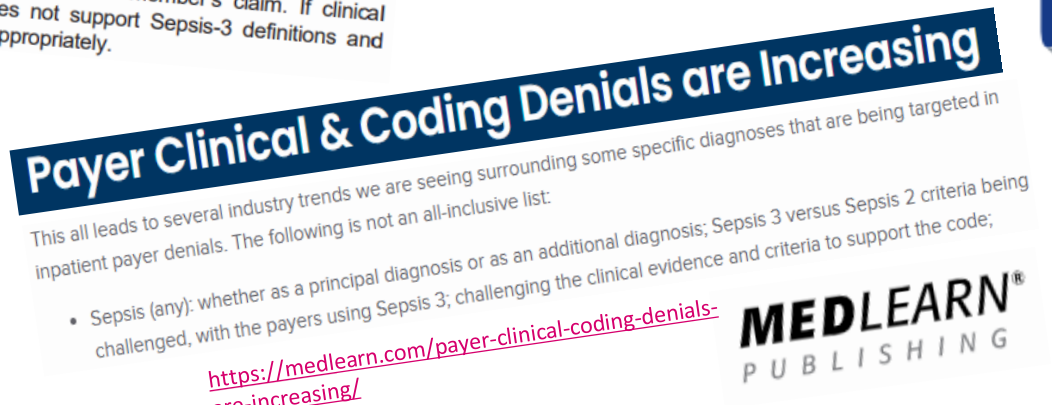
Cigna

Network News

FIRST QUARTER 2020

CIGNA ADOPTS SEPSIS-3

https://www.cigna.com/sites/email/2020/937483-2020-q1-network-news.pdf



Payer Clinical & Coding Denials are Increasing

This all leads to several industry trends we are seeing surrounding some specific diagnoses that are being targeted in inpatient payer denials. The following is not an all-inclusive list:

- Sepsis (any): whether as a principal diagnosis or as an additional diagnosis; Sepsis 3 versus Sepsis 2 criteria being challenged, with the payers using Sepsis 3; challenging the clinical evidence and criteria to support the code;

https://medlearn.com/payer-clinical-coding-denials-are-increasing/

MEDLEARN PUBLISHING

Provider Newsletter

https://providers.amerigroup.com/IA
Provider Services: 1-800-454-3730

August 2019

Sepsis diagnosis coding and billing reminder

To help ensure compliance with the coding and billing of sepsis, Amerigroup Iowa, Inc. reviews clinical information in the medical records submitted with the claim, including lab results, treatment and medical management. In order to conduct the review accurately and consistently, our review process for sepsis applies ICD-10-CM coding and documentation guidelines, in addition to the updated and most recent sepsis-3 *Clinical Criteria* published in the *Journal of the American Medical Association*, February 2016. At discharge, clinicians and facilities should apply the sepsis-3 criteria when determining if their patient's clinical course supports the coding and billing of sepsis. The claim may be subject to an adjustment in reimbursement when sepsis is not supported based on the sepsis-3 definition and criteria.

https://provider.amerigroup.com/dam/publicdocuments/IAIA_ProviderNewsletter_Aug2019.pdf?v=202101111754

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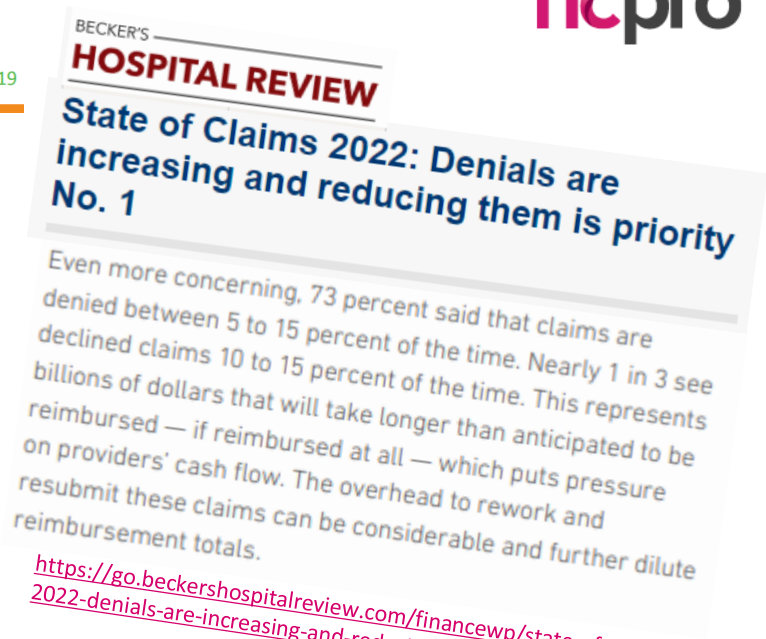
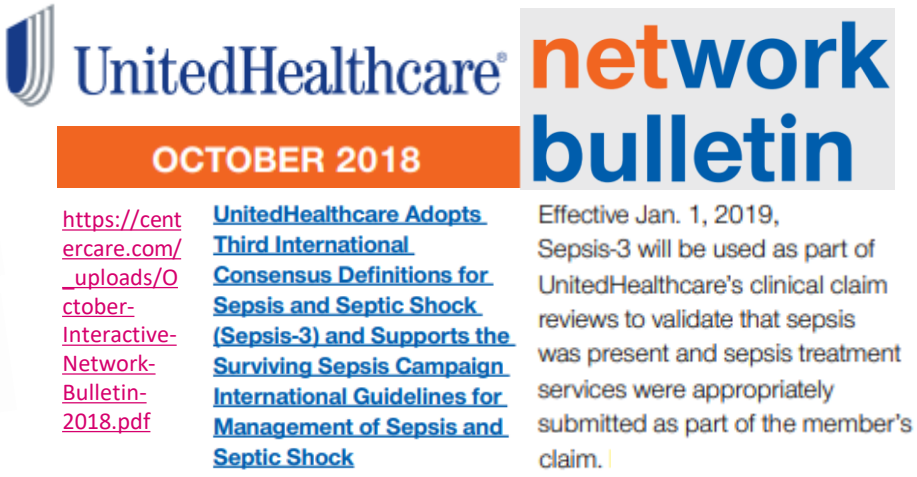


BECKER'S HOSPITAL REVIEW

State of Claims 2022: Denials are increasing and reducing them is priority No. 1

Even more concerning, 73 percent said that claims are denied between 5 to 15 percent of the time. Nearly 1 in 3 see declined claims 10 to 15 percent of the time. This represents billions of dollars that will take longer than anticipated to be reimbursed — if reimbursed at all — which puts pressure on providers' cash flow. The overhead to rework and resubmit these claims can be considerable and further dilute reimbursement totals.

https://go.beckershospitalreview.com/financewp/state-of-claims-2022-denials-are-increasing-and-reducing-them-is-priority-no.-1



UnitedHealthcare

network bulletin

OCTOBER 2018

https://centercare.com/_uploads/October-Interactive-Network-Bulletin-2018.pdf

UnitedHealthcare Adopts Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3) and Supports the Surviving Sepsis Campaign International Guidelines for Management of Sepsis and Septic Shock

Effective Jan. 1, 2019, Sepsis-3 will be used as part of UnitedHealthcare's clinical claim reviews to validate that sepsis was present and sepsis treatment services were appropriately submitted as part of the member's claim.

Impact on Sepsis Reimbursement Based on Definition

Sepsis and Quality Measures & Programs

- PSI-4: Death Rate among Surgical Inpatients with Serious Treatable Complications: Sepsis Stratum
- PSI-13: Postoperative Sepsis
- The Joint Commission (TJC) Disease-Specific Care Certification: Sepsis
- 3M Potentially Preventable Complications (PPC) Classification System: PPC 35: Septicemia & Severe Infections
- All cause 30-day mortality (includes sepsis)
- SEP-1 Core Measure
- PROPOSED: SEP-1 Core Measure to be part of Hospital Value Based Purchasing (HVBP) Program

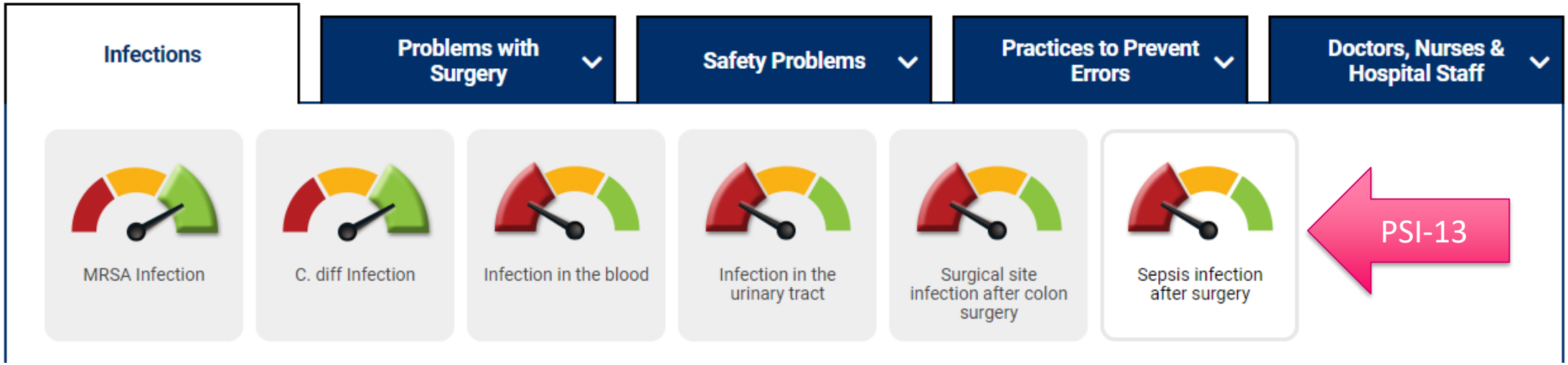
Sepsis and Public Reporting

- Leapfrog[4] - Search Leapfrog's Hospital and Surgery Center Ratings | Hospital and Surgery Center Ratings | Leapfrog Group
- Healthgrades[5] - Find a Hospital | Hospital Reviews & Ratings | Healthgrades
- Hospital Compare[6] - Find Healthcare Providers: Compare Care Near You | Medicare

SEP-1 Public Reporting – Leapfrog

How the Leapfrog Hospital Safety Grade is produced

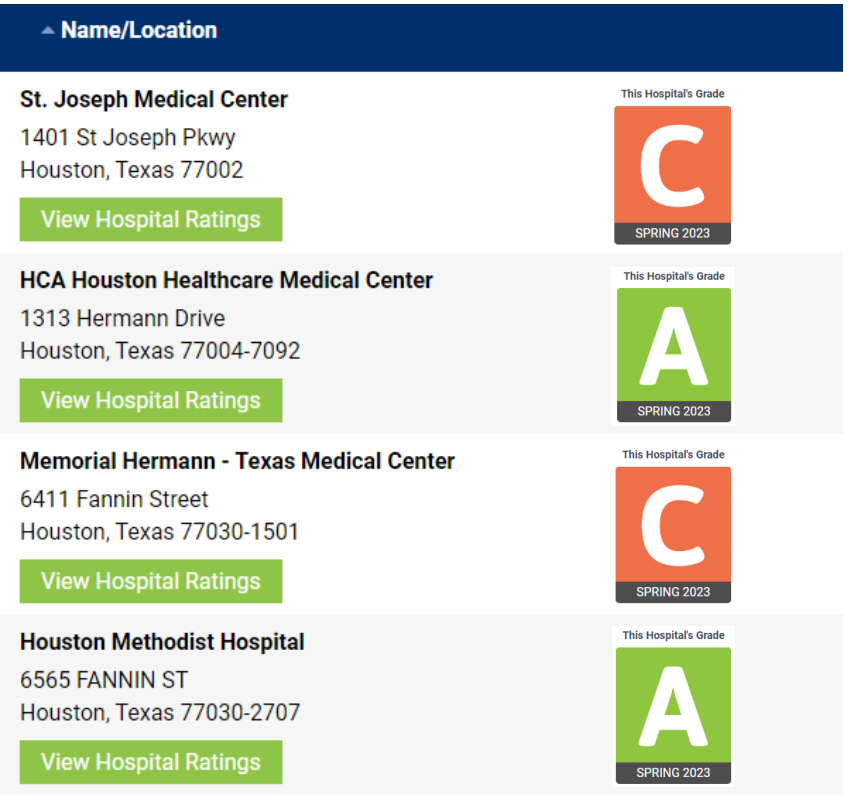
- "The Expert Panel selected 22 evidence-based measures of patient safety, including CMS Medicare PSI 90 Patient Safety and Adverse Events composite (which includes 10 component measures of patient safety including **PSI-13: postoperative sepsis**), analyzed the data, and determined the weight of each measure based on **evidence**, **opportunity for improvement** and **impact."**[7]



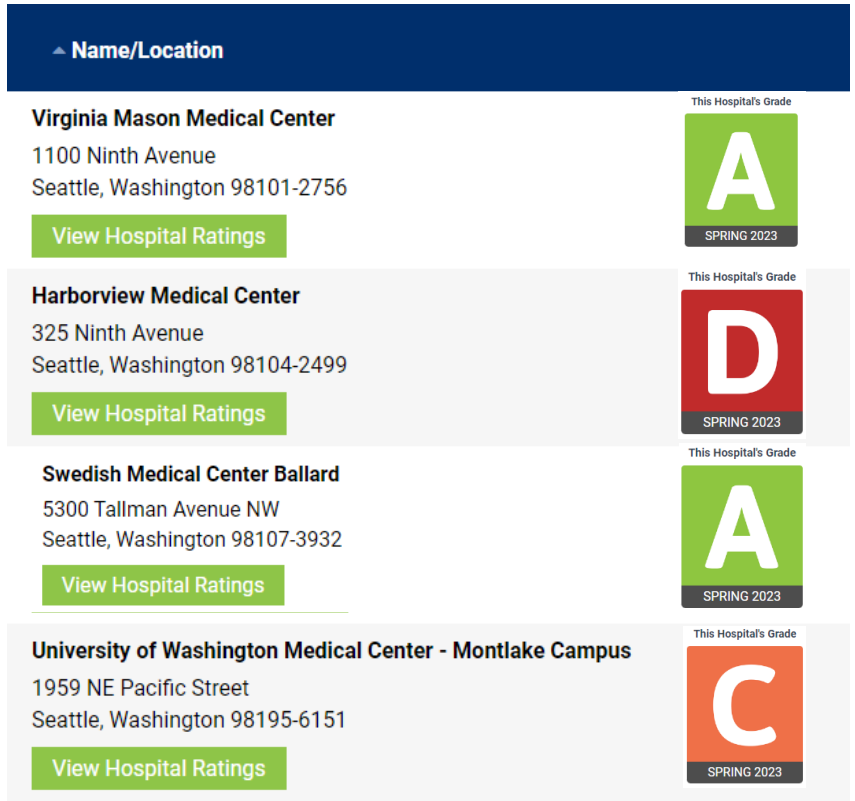
Sepsis Public Reporting – Leapfrog

Leapfrog Hospital Search Examples by Location:

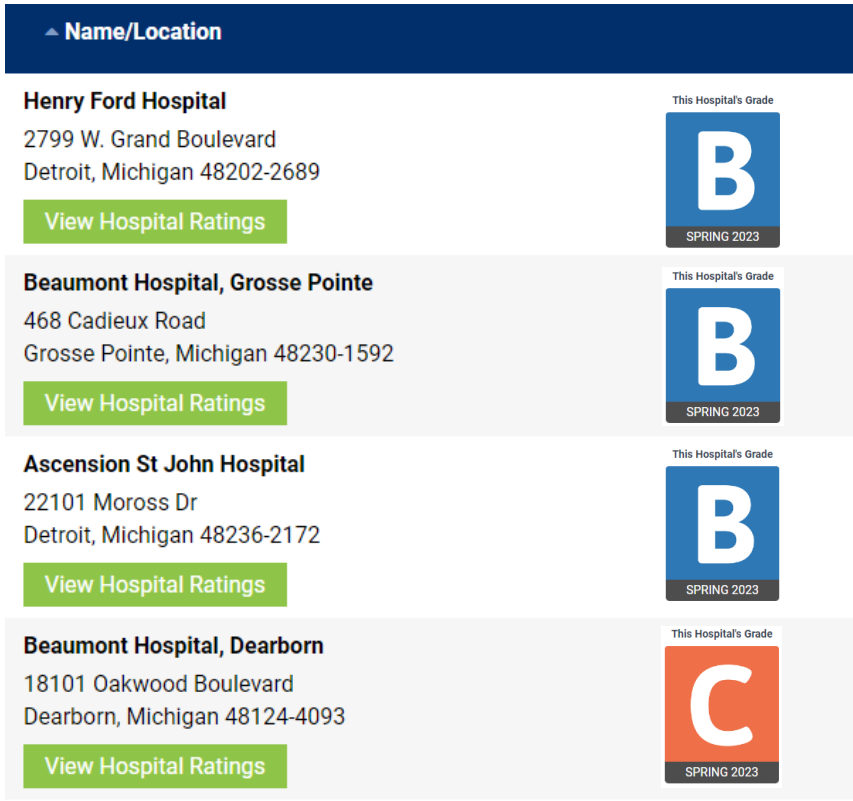
Houston, TX



Seattle, WA



Detroit, MI



Sepsis Public Reporting – Healthgrades

How Healthgrades Rate Hospital Quality

- “Healthgrades recognizes the importance of analyzing accurate and relevant data to evaluate clinical quality. Healthgrades’ dedicated data science team and internal clinical experts continually work on the methodology focusing on patient mortality and complication rates. Each year it is reviewed by our Quality Advisory Board and additional outside Specialty Clinical Experts Healthgrades Hospital Quality Methodology.”[8]

1 - Procedure Performance

First, we determine if the hospital visit resulted in a complication or mortality. We continue to monitor 30 days after care to make sure there is not a mortality.

3 - Predicted Outcome

Third, we create a predictive model based on the expected outcome from patients with the same conditions and procedures, as well as potential risks.

2 - Potential Risks

Second, we develop a list of potential risks based on the patient's condition and the hospital visit. Did the patient have other health conditions that may have had other risks?

4 - Star Ratings

Finally, we compare our predictive outcome to actual outcomes at a facility and star ratings are awarded based on whether the facility has outcomes that are statistically higher or lower than expectations.

SEP-1 Public Reporting – Healthgrades

Healthgrades Hospital Search Examples by Location:

Orlando, FL

Sepsis

	Mortality In-Hospital	Mortality within 30 days
Orlando Health Orlando Regional Medical Center 69% of patients would definitely recommend.	Better than Expected	Better than Expected
Adventhealth Orlando 74% of patients would definitely recommend.	Better than Expected	Better than Expected
AdventHealth East Orlando 40 Affiliated Providers	Better than Expected	Better than Expected
Orlando Health-health Central Hospital 66% of patients would definitely recommend.	As Expected	As Expected

Los Angeles, CA

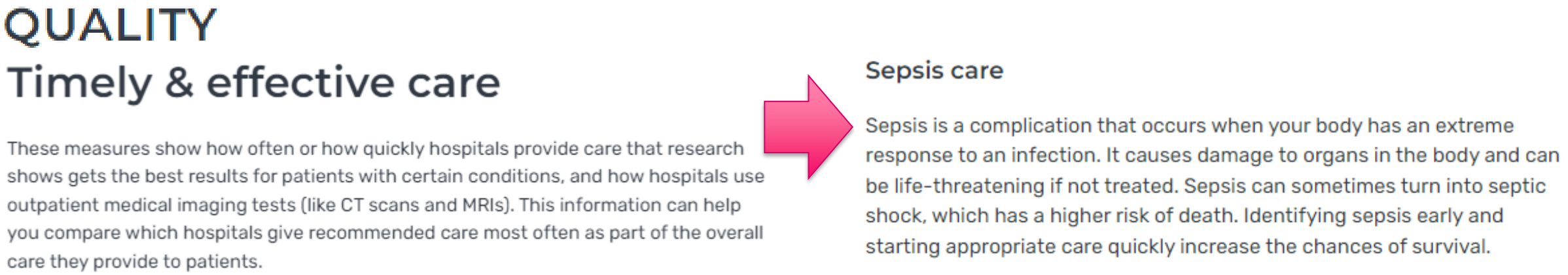
Sepsis

	Mortality In-Hospital	Mortality within 30 days
PIH Health Good Samaritan Hospital 66% of patients would definitely recommend.	Worse than Expected	As Expected
California Hospital Medical Center 64% of patients would definitely recommend.	Better than Expected	Better than Expected
L A Downtown Medical Center 62% of patients would definitely recommend.	As Expected	As Expected
Adventist Health White Memorial 68% of patients would definitely recommend.	As Expected	As Expected

Sepsis Public Reporting – CMS Hospital Care Compare

CMS Hospital Care Compare and Provider Data Catalog

- Hospital Care Compare displays hospital performance data in a consistent, unified manner to ensure the availability of credible information about the care delivered in the nation's hospitals. The hospitals displayed on Care Compare are generally limited to Acute Care Hospitals, Acute Care Veteran's Hospitals, Department of Defense Hospitals, Critical Access Hospitals, and Children's Hospitals. Only data from Medicare-certified hospitals are included on Care Compare.[9]



SEP-1 Public Reporting – CMS Hospital Care Compare

CMS Hospital Care Compare Search Examples by Location:

Boston, MA

National average: 58% [25,26]
MA average: 55% [25,26]

Massachusetts General Hospital
55 Fruit Street
Boston, MA 02114
63% [2]
of 147 patients

Tufts Medical Center
800 Washington Street
Boston, MA 02111
23% [2]
of 71 patients

Boston Medical Center
1 Boston Medical Center Place
Boston, MA 02118
57% [2]
of 153 patients

Omaha, NE

National average: 58% [25,26]
NE average: 60% [25,26]

The Nebraska Medical Center
987400 Nebraska Medical Ce...
Omaha, NE 68198
36% [2]
of 135 patients

Omaha VA Medical Center (VA Nebraska...
4101 Woolworth Avenue
Omaha, NE 68105
64%
of 42 patients

Chi Health Bergan Mercy
7500 Mercy Rd
Omaha, NE 68124
63% [2]
of 172 patients

New York, NY

National average: 58% [25,26]
NY average: 50% [25,26]

Mount Sinai Beth Israel
First Avenue at 16th Street
New York, NY 10003
58% [2]
of 147 patients

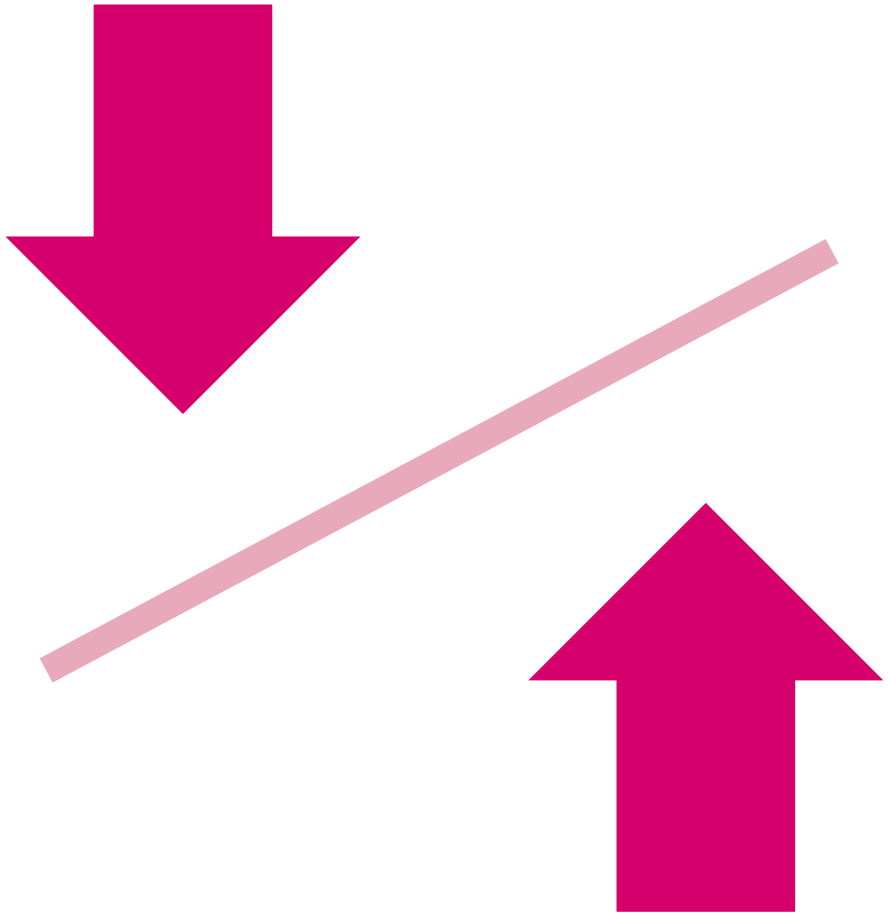
Bellevue Hospital Center
462 First Avenue
New York, NY 10016
38% [2]
of 81 patients

NYU Langone Hospitals
550 First Avenue
New York, NY 10016
80% [2]
of 205 patients

How Does a Definition Define Outcomes?

- It drives when sepsis is present and therefore when it is codable
- SEP-1's initial population is based on CODING
- SEP-1's goal is early identification and intervention to reduce morbidity & mortality, which is why it is an abstracted measure with 2 ways of identifying time zero:

DOCUMENTATION vs ABSTRACTION



What is Time Zero? The Time the Bundle Starts!

Abstraction

All 3 must be met within 6 hours of each other:

1. Documented suspected/confirmed infection
2. Evidence of SIRS
3. Evidence of organ dysfunction

OR

Documentation

Provider documentation of “severe sepsis” or “septic shock”

When time zero is driven by documentation, it is called “owning the clock”

Sepsis-2: Bigger Population but Less Control of the Clock

- Sepsis-2 definition allows for a bigger population, but also reduces the provider's ownership of the clock (AKA: time zero)
  - Since "simple sepsis" is included in SEP-1 initial population, the provider may never diagnose severe sepsis or septic shock
  - But may meet based on ABSTRACTION if "evidence of organ dysfunction" is identified and the provider did not clearly document it was due to a chronic or non-infectious cause
    - THIS WILL START THE CLOCK!
  - If ANY part of the bundle is not completed during the identified time zero, this will result in a fallout, or an OFI (opportunity for improvement) and reduce the SEP-1 compliance rate (remember, national rate = 58%)
  - There are exclusions, but the provider must have an idea of time zero to ensure their documentation lines up appropriately

Sepsis-3: Smaller Population but Higher Impact for OFIs

- Sepsis-3 definition provides a smaller population, but also reduces the sensitivity to identify “early”
  - Sepsis-3 definition does not include early identifiers, which may reduce sensitivity to “time zero”
  - Pt may meet time zero by abstraction before meeting by clinical judgement, increasing the chance for an OFI based on “delay of care” unless documentation is CLEAR when sepsis is… and is NOT present
  - With a reduced denominator, there is a higher weight per each OFI identified

$$\frac{1\ \text{OFI}}{40\ \text{accounts}} = 2.5\%\ \text{reduction for each OFI}$$

$$\frac{1\ \text{OFI}}{100\ \text{accounts}} = 1\%\ \text{reduction for each OFI}$$

$$\frac{1\ \text{OFI}}{150\ \text{accounts}} = 0.7\%\ \text{reduction for each OFI}$$

Best Defense = Blended Definition and Criteria

- ✓ Both SEP-1 and SSC stress the importance of early identification but only 1 uses it in its definition
- ✓ Both SEP-1 and SSC start time zero at organ dysfunction (sepsis-2: severe sepsis, sepsis-3: sepsis)
- ✓ Sepsis-2 allows for early treatment
- ✓ Sepsis-3 allows for control of the clock

You NEED both for the BEST outcomes for patient AND organization!

What Can YOU Do?

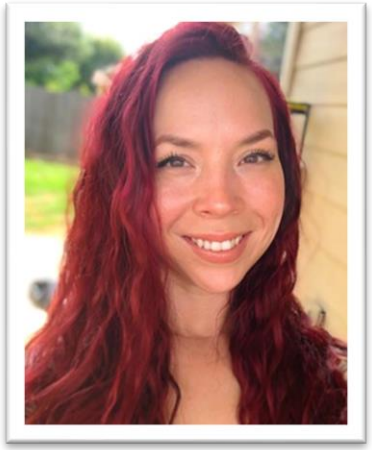
Know Your Data

- What does your internal data look like?
  - Sepsis discharge volume
  - Sepsis denial rate
  - SEP-1 performance
  - PSI-90 and PSI-4 performance
- What does your external data look like?
  - Leapfrog
  - Healthgrades
  - CMS Hospital Care Compare

Get Involved

- With Quality Department on query opportunities
  - Establish a process where Quality sends OFIs for clinical validation review
- With Sepsis Committee on adopted definition
  - Help with education across organization to standardize definition and criteria
- With Compliance on best practice
  - Ensure coding rules and guidelines align with desired outcome

Questions & Answers



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