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Defining sepsis together

A collaborative approach to improving care

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Sepsis remains one of the most challenging, costly, and inconsistently defined conditions in U.S. healthcare. Each year, an estimated **1.7 million adults develop sepsis** (CDC, 2024). In 2021, sepsis accounted for **nearly 2.5 million hospital stays** and **over $52 billion in hospital costs,** with **over one-third of patients** requiring **transfer to post-acute care health facilities** (AHRQ, 2024). Beyond financial strain, clinical and operational complexity challenge health plans and providers alike. Advanced data tools are increasingly essential for identifying, interpreting, and supporting the consistent management of these cases across care settings.

Sepsis cases are complex, resource-intensive, and frequently subject to retrospective review and dispute. At the heart of the issue lies **the definition of sepsis itself.** Over the past three decades, the medical community has published three frameworks: Sepsis-1 (1991), Sepsis-2 (2001), and Sepsis-3 (2016), each redefining the clinical criteria for diagnosis. Today, clinicians, coders, and health plans often apply different versions based on local policy, EHR templates, or audit logic. The result: **the same patient encounter can yield different interpretations of sepsis,** one clinically valid for treatment but administratively invalid for payment.

The fragmentation extends beyond definitions. Many health plans engage multiple vendors for utilization management (UM) and payment integrity (PI), each applying different criteria. Providers often receive **conflicting denial rationales from multiple vendors under the same payer,** undermining trust and increasing abrasion.

Consultants often advise providers to establish internal sepsis policies or to negotiate their preferred definition into their contracts. While this approach can help providers locally, it has produced **wide variation across health plans** –with some using criteria for Sepsis-2, others Sepsis-3, and others applying definitions on a case-by-case basis. For example, if a health plan formally adopted Sepsis-3 criteria for all claims, it would reflect a more conservative interpretation of sepsis. However, unilateral policy shifts can create operational friction when providers and other health plans continue to apply Sepsis-2 criteria, leading to inconsistent outcomes and increased administrative burden.

The opportunity lies in collaboration and enablement. By aligning on a shared definition of sepsis and leveraging tech to support earlier, data-driven insight, health plans and providers can:

- Reinforce provider education to ensure consistent application of a unified, evidence-based definition of sepsis at both the point of care and billing
- Detect and resolve documentation or criteria discrepancies proactively
- Reduce sepsis-related denials and appeals
- Strengthen trust and transparency
- Improve accuracy in diagnosis and documentation

The challenge: Why is sepsis a critical issue right now

Clinical and financial burden

Sepsis is consistently among the most expensive inpatient conditions. Between 2012 and 2018, sepsis-related costs among Medicare beneficiaries rose from **$27.7 billion to $41.5 billion** (AHRQ, 2024).

In 2021, **the average hospital stay for sepsis was 9.2 days,** costing **$28,800.** Approximately **16% of sepsis inpatient stays** resulted in **readmission within 30 days of discharge** (AHRQ, 2024). In addition to direct clinical costs, **sepsis represents one of the most disputed inpatient diagnoses, reflecting the complexity of clinical validation.** In a 2023 ACDIS survey, over **80% of respondents** ranked sepsis among their most frequently denied conditions. These figures underscore the immense clinical and financial impact of sepsis.

Regulatory and reputational pressures

Sepsis has become a focal point for regulators and auditors, driven by rising costs, inconsistent definitions, and growing scrutiny around documentation accuracy. In 2024, the **Office of Inspector General (OIG)** added sepsis billing to its 2024–2025 Work Plan, citing concerns that variable definitions and inconsistent application of clinical criteria were contributing to inflated Medicare costs (OIG, 2024). The OIG's review specifically targets whether sepsis diagnoses reported by hospitals align with clinical indicators in the medical record–a signal that regulators are paying close attention to coding integrity and medical necessity.

At the same time, the **Centers for Medicare & Medicaid Services (CMS)** continues to reinforce sepsis management as a care quality measure through the SEP-1 core measure. SEP-1 requires hospitals to document a series of time-sensitive interventions–including lactate measurement, blood cultures, and antibiotic administration–within strict time frames. Compliance with SEP-1 directly influences hospital reimbursement and public quality ratings under CMS's value-based purchasing program. **Yet even when clinicians deliver appropriate care, documentation gaps or inconsistent interpretation of criteria can result in noncompliance.** These "bundle failures" are often misclassified as process breakdowns, triggering reimbursement penalties and damaging hospital performance metrics.

The landscape is further strained by a misalignment between regulatory and clinical frameworks. While many hospitals and professional societies have transitioned to Sepsis-3 criteria–emphasizing organ dysfunction and the **Sequential Organ Failure Assessment (SOFA)** score–CMS quality metrics, including SEP-1, still rely on the older Sepsis-2 definitions based on **Systemic Inflammatory Response Syndrome (SIRS)** criteria. Adding to the complexity, some clinicians use the **quick SOFA (qSOFA)** score for rapid bedside assessment, further complicating the identification and documentation of sepsis across institutions. This multiplicity of frameworks underscores the challenge for payers and providers to maintain consistency in clinical care and administrative review.

Market context

Sepsis-related disputes and appeals are becoming increasingly common across the payer landscape, reflecting the growing complexity of diagnosis, documentation, and reimbursement. Health plans report rising volumes of clinical validation denials, typically initiated when a claim's clinical evidence does not fully align with the plan's criteria for sepsis. These denials are not necessarily challenges to the quality of care; instead, they reflect operational challenges in **reconciling varying definitions and documentation practices.**

Providers are experiencing significant strain from this environment. Administrative workload increases as staff respond to retrospective reviews, compile detailed chart documentation, and engage in peer-to-peer discussions with health plans. The resulting unpredictability in reimbursement disrupts financial planning and erodes trust among stakeholders.

What's driving the friction

Health plans and providers share the same goals–better care, appropriate payment, integrity in documentation–yet they often operate under different frameworks and timelines. The friction arises from three key drivers: **clinical ambiguity, documentation variability,** and **operational fragmentation.**

- **Clinical ambiguity and diagnostic variability:** A core driver of sepsis-related friction is the persistent ambiguity surrounding its clinical definition. Sepsis-1, Sepsis-2, and Sepsis-3 have redefined diagnostic criteria, emphasizing different clinical markers–from SIRS-based inflammation to organ dysfunction measured via SOFA score. While reflecting clinical advances, these evolving frameworks have created inconsistency. **Advanced technology can help bridge this gap by maintaining multiple policy frameworks simultaneously,** enabling health plans to configure reviews according to their specific criteria while providing providers with transparency into which framework is being applied.

  Clinicians, coders, and health plans frequently operate under different assumptions when evaluating the same patient encounter. A physician may diagnose and treat a patient using Sepsis-3 criteria, initiating appropriate interventions based on observed organ dysfunction. Simultaneously, clinical documentation improvement (CDI) teams or payer auditors may evaluate that encounter using Sepsis-2 thresholds or a hybrid framework influenced by historical contracts or vendor-specific guidelines. The result is reasonable disagreement–**not about importance, but about definition.**

  Limited understanding of current criteria, particularly Sepsis-3 and the qSOFA score, further complicates the picture. While medical education increasingly incorporates SOFA scoring, many practitioners rely on traditional SIRS indicators or use qSOFA for rapid bedside assessment. Conversely, health plans, relying primarily on documentation and retrospective review, may lack insight into the clinician's real-time reasoning, leading to what appears to be a "blind" review process.

- **Documentation gaps and coding complexity:** Even when a sepsis diagnosis is clinically accurate, variability in documentation and coding practices often creates friction. Medical records may be **inconsistent, incomplete,** or **misaligned** with payer criteria for clinical validation. Subtle differences in how organ dysfunction is recorded, infection sources are described, or symptom timing is documented can all influence whether a case passes review. **Traditional audits rely on the medical record, but these may not capture the physician's evolving assessment or rationale.** Next-generation AI-enabled solutions, such as Cohere Validate™, can rapidly scan all documentation, highlight critical notes, and cross-check against multiple criteria sets–reducing the risk of errors and helping identify potential discrepancies proactively before payment is issued.

  CDI teams bridge the gap between bedside care and administrative interpretation, but their queries often reflect priorities that differ from retrospective payer audits. A hospital may submit a claim based on the physician's real-time diagnosis, while the payer evaluates it against **SOFA-based Sepsis-3 thresholds.** Discrepancies can lead to denials, even when the patient received appropriate care.

  Rigid coding rules, DRG-level distinctions, and nuanced interpretations of severity (sepsis vs. severe sepsis vs. septic shock) compound the issue. A minor variation in documentation or timing can shift reimbursement classification, causing **financial unpredictability** for providers and additional operational burden for health plans.

- **Operational silos between UM and PI:** Within health plans, **utilization management (UM)** and **payment integrity (PI)** teams often review the same case using different criteria. What's approved prospectively can later be denied retrospectively, creating frustration for both sides.

  Operational silos are particularly problematic when multiple vendors are involved. Each vendor may apply proprietary logic or different sepsis definitions, creating confusion for the health plan and providers. Without a **coordinated, unified approach,** both sides spend time and resources managing recurring disputes rather than improving patient outcomes.

  A collaborative framework, or better yet, an integrated solution—where UM and PI share criteria, align review processes, and leverage tech to analyze documentation—reduces friction, improves operational efficiency, and fosters trust. By ensuring consistency across prospective and retrospective reviews, health plans can minimize disputes while providers gain clarity, predictability, and confidence in how their clinical decisions are validated.

Why collaboration is essential

The solution to the sepsis problem isn't more regulation–it's alignment.

Collaboration between health plans and providers bridges the gap between real-time clinical decisions and retrospective administrative review.

Shared goals, different starting points

Both parties share the goal of accurate identification, timely treatment, fair reimbursement, and minimized administrative burden. Disconnect arises from differing methods and timelines. Collaboration bridges this divide through **shared definitions, transparent criteria, and open communication,** enabling proactive resolution of ambiguous cases and continuous improvement through joint feedback loops. Trust is strengthened, audits become learning opportunities, and resources can focus on patient care rather than dispute resolution.

Plans that lead with collaboration demonstrate integrity and fairness–strengthening provider trust and regulatory credibility. For providers, alignment means fewer denials, clearer expectations, and more focus on patient care.

A framework for alignment

To move from friction to partnership, both sides need structure. A sustainable framework includes:

1. **Shared clinical criteria and definition**

   Establish a payer–provider workgroup to agree on evidence-based criteria that balance clinical relevance with audit defensibility. Digital tools can maintain a single source of truth for these criteria, ensuring consistency across systems.

2. **Collaborative review and feedback loops**

   Align prospective UM and retrospective PI reviews under the same logic. Share findings in near real-time to prevent repeat discrepancies and enable faster resolution.

3. **Data transparency and performance metrics**

   Create shared dashboards tracking denial rates, documentation accuracy, and appeal outcomes. Advanced analytics make insights actionable, informing ongoing improvement.

4. **Joint governance and accountability**

   Establish a cross-functional steering committee that includes payer medical directors, provider CMOs, CDIs, and coding leaders to maintain alignment and accountability. Technology can streamline reporting and maintain visibility into adherence to agreed criteria.

5. **Scalable approach for other diagnoses**

   Alignment on sepsis creates a blueprint for collaboration in other high-friction diagnoses– such as malnutrition, acute respiratory failure, and encephalopathy–where definitions also diverge. Technology enables scalability by applying shared criteria, workflows, and reporting across multiple conditions.

Modern solutions enable this alignment by maintaining a single source of truth for clinical criteria while allowing policy-specific configurations. For example, a health plan using Sepsis-3 criteria can apply those rules consistently across sepsis-specific PI reviews, ensuring predictable outcomes, transparency, and reduced friction for all stakeholders.

From alignment to action: technology as the enabler

Sepsis represents both a challenge and an opportunity. **Bridging the definition gap** requires more than shared intent–it requires technology that can translate collaboration into action.

Modern tools can deliver:

AI-enabled criteria application: Apply Sepsis-2, Sepsis-3, qSOFA, or hybrid frameworks automatically, based on payer policy.

Unified UM and PI logic: Ensure prospective and retrospective reviews follow consistent rules, reducing denials and disputes.

Transparent audit trails: Track which criteria were applied, when, and by whom, creating accountability and trust.

Real-time provider feedback: Notify providers early of documentation gaps or discrepancies to prevent downstream disputes.

Integrated clinical and claims data: Analyze all relevant information across sources to provide a comprehensive view of the patient encounter.

By leveraging these capabilities, health plans can proactively address variability in sepsis identification and documentation, reduce operational friction, and build a foundation for predictable, efficient outcomes.

Operationalizing collaboration: Cohere Health in action

Cohere Health enables this collaboration through AI-driven tools, integrated review processes, and transparent data dashboards. **Cohere Validate,** for example, operationalizes shared criteria across UM and PI workflows, applies multiple sepsis frameworks, and provides actionable insights before payment decisions are made. By automating documentation review, aligning critical validation logic, and enabling real-time feedback, Cohere helps organizations move from reactive adjudication to proactive partnership.

Reinforcing a shared understanding of sepsis is not just about compliance or cost—it's about **creating a sustainable, tech-enabled model for collaboration that improves outcomes for patients, providers, and health plans alike.**

About Cohere Health®

Cohere Health's clinical intelligence platform delivers AI-powered solutions that streamline access to quality care by improving payer-provider collaboration, cost containment, and healthcare economics. Cohere Health works with over 660,000 providers and handles over 12 million prior authorization requests annually. Its AI auto-approves up to 90% of requests for millions of health plan members. The company has been recognized on the 2025 Inc. 5000 list and in the Gartner® Hype Cycle™ for U.S. Healthcare Payers (2022-2025), and is a Top 5 LinkedIn™ Startup for 2023 & 2024.

About Cohere Validate

Cohere Validate is Cohere Health's AI-powered payment integrity solution that brings accuracy, speed, and control to clinical validation and coding review. The solution empowers health plans to scale in-house payment integrity operations by automating medical record review, applying policy-specific criteria, and identifying discrepancies before payment. Unlike traditional outsourced PI models, Cohere Validate provides payers with complete visibility and control over their audit criteria, workflows, and exclusions. This in-house model reduces vendor dependency, helps accelerate turnaround times, and helps to minimize provider abrasion by promoting more consistent, transparent, and well-documented reviews.

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