

Sepsis Benchmarking Data Activity

The Emergency Quality Network (E-QUAL) believes that true practice transformation and quality improvement is data-driven. Quality improvement can be hard, and data is essential to identifying gaps and allocating scarce resources and attention to the most important targets to improve sepsis outcomes.

Sepsis Benchmarking Data Activity requires the completion of data submission using one of three options. All benchmarking results will be confidential to E-QUAL and do not require submission of any Protected Health Information (PHI). Your ED's identity and score will not be revealed to any participants or CMS. Only aggregated scores and data will be published by E-QUAL as evidence of group progress.

All participating sites will receive a benchmarking report if the data is submitted by the deadline that is listed in the E-QUAL portal.

Choose one of the following Data Submission Options:

1) Clinical Emergency Data Registry (CEDR):

If you are already enrolled in CEDR *AND* have completed data mapping for [CEDR Sepsis Metrics](#), then you can simply opt to have CEDR data pushed to E-QUAL.

2) Septic Shock Quick Chart Review:

Abstract key data elements on 20 patients with septic shock. This option requires you to identify patients based on ED diagnostic coding, and then to manually review each chart for the completion of key sepsis care processes.

3) CMS SEP-1 Preliminary Data Submission:

Many EDs receive regular reports on the CMS SEP-1 metric from hospital quality staff. Submit this data to receive an early assessment of your hospital's performance on this national, publicly reported quality measure.

Sepsis Quick Chart Review Data Submission Guide

The following definitions and instructions are to be used for data submission for the Emergency Quality Network (E-QUAL) Sepsis **Quick Chart Review Option**. Note these definitions may slightly differ from those used for the Clinical Emergency Data Registry (CEDR) or SEP-1 data submission options.

Step 1: Identify 20 cases for manual review

Cases should be identified for each Benchmarking Activity based on Emergency Department diagnostic coding. These cases can be queried from electronic health records, billing data, or with the assistance of your revenue cycle management company. A detailed list of ICD-9, ICD-10, or SNOMED codes that can be used to identify cases is available for [download](#).

If your site does not have 20 cases within the defined 3 month period, you can increase the data collection period to 6 months to meet the 20 case requirement.

Step 2: Manually abstract numerator elements from each patient chart

Data Element	Definition
Exclusion Reasons	A drop-down list of exclusions aligned with the Clinical Emergency Data Registry (CEDR) are available for selection if a case does not meet criteria. No additional data abstraction is required on excluded patients.
Initial Lactate Performed (Yes/No)	Indicate if any form of serum lactate testing was performed during the ED visit. This may include point of care or central laboratory testing.
Initial lactate value	If performed, report actual initial lactate result in mmol/L.
Blood Cultures Before Antibiotics (Yes/No)	Indicate if at least one blood culture was ordered prior to administration of antibiotics during the ED visit.
Broad Spectrum Antibiotics (Yes/No)	Indicate if broad spectrum antibiotics were ordered during the ED visit.
30cc/kg IV fluid bolus (Yes/No)	Indicate if patient had 30/cc kg of any intravenous fluids ordered during the ED visit.
Received Vasopressors (Yes/no)	Indicate if patient received any vasopressor medication during the ED visit regardless of indication. Vasopressor medications include epinephrine, norepinephrine, dopamine, and dobutamine.
Repeat Lactate Performed in ED (Yes/No)	Indicate if repeat lactate was performed if initial lactate value > 2mmol/L. If no initial lactate performed then leave blank. If initial lactate < 2mmol/L then leave blank.
Repeat Lactate Value	If performed, report actual report lactate result in mmol/L.
Dies (in-hospital) (Yes/No)	Indicate if patient died during the same hospital stay regardless of day of hospitalization.

Quick Chart Review – About the Metrics

- **Initial Lactate Performed:**
Numerator: Patients who had an initial lactate resulted.
Severe Sepsis and Septic Shock Denominator: Patients with ED diagnosis or clinical impression consistent with either septic shock or severe sepsis or infection with hypotension. This definition includes 984 ICD-10 infection codes, a refined update from ACEP Clinical Emergency Data Registry (CEDR) quality measures.
- **Broad Spectrum Antibiotics: (were antibiotics administered?)**
Numerator: Patients who received antibiotics (broad spectrum or targeted antibiotic therapy)
Denominator: Septic Shock and Severe Sepsis Denominator defined above.
- **Blood Cultures Before Antibiotics: (were blood cultures drawn before antibiotics?)**
Numerator: Patients who had at least one blood culture drawn before antibiotics were administered.
Denominator: Septic Shock and Severe Sepsis Denominator defined above.
- **30 cc/kg IV Fluids: (was the patient adequately fluid resuscitated?)**
Numerator: Completed fluid resuscitation with 30 cc/kg crystalloid fluids
Septic Shock Denominator: Septic Shock and Severe Sepsis Denominator defined above.
- **Received Vasopressors: (were vasopressors initiated?)**
Numerator: Patients with vasopressors initiated
Denominator: Septic Shock and Severe Sepsis Denominator defined above
- **Repeat Lactate Performed:**
Numerator: Patients with a second (repeat) lactate obtained within 6 hours of initial presentation.
Denominator: Septic Shock and Severe Sepsis Denominator defined above AND initial lactate >2.
- **Lactate Clearance >10%: (was the repeat lactate improved by at least 10%)**
Numerator: Patients with repeat lactate at least 10% lower than initial lactate.
Denominator: Septic Shock and Severe Sepsis Denominator defined above AND initial lactate >2 AND repeat lactate obtained.

Step 3: Use “Add New Row” to complete 20 manual chart reviews including excluded patients

Septic Shock Chart Review

← Change Data Submission Option

Abstract key data elements on 20 patients with septic shock between **October and December 2017**. This option requires you to identify patients based on ED diagnostic coding, then manually review each chart for the completion of key sepsis care processes.

Instead of “Zero”, please enter the code “888” if your site does not have the information available.

Please click on ‘Save’ or ‘Complete’ after making any (or all the) edits to the chart.

Record Number	Exclusion Reasons	Initial Lactate Performed	Initial Lactate Value	Blood Cultures Before Antibiotics	Broad Spectrum Antibiotics	30 cc/kg IV Fluids	Received Vasopressors	Repeat Lactate Performed in ED	Repeat Lactate Value	Died (in hospital)	Delete Row
PRE-001											
PRE-004	Died in ED	Yes	2	Yes	Yes	Yes	Yes	No	4		
PRE-005											
PRE-006	LWBS/AMA										
PRE-007	Died in ED	Yes	4	No	Yes	Yes	Yes	Yes	5	Yes	
PRE-008											
PRE-009	LWBS/AMA	Yes	4								
PRE-010	Transferre...										
PRE-011											
PRE-012	Cardiac arr...	No		Yes	Yes			3			
PRE-013											
PRE-014	LWBS/AMA	Yes	1	Yes			Yes				

+ Add New Row

Enter the best email address to contact with questions regarding data submission verification.

Email Address

Save

Complete This Activity

Record Number	Exclusion Reasons	Initial Lactate Performed	Initial Lactate Value	Blood Cultures Before Antibiotics	Broad Spectrum Antibiotics	30 cc/kg IV Fluids	Received Vasopressors	Repeat Lactate Performed in ED	Repeat Lactate Value	Died (in Hospital)	Delete Row
PRE-001											
PRE-004	Died in ED	Yes	2	Yes	Yes	Yes	Yes	No	4		
PRE-005											
PRE-006	LWBS/AMA										
PRE-007	Died in ED	Yes	4	No	Yes	Yes	Yes	Yes	5	Yes	
PRE-008											
PRE-009	LWBS/AMA	Yes	4								
PRE-010	Transferre...										
PRE-011											
PRE-012	Cardiac arr...	No		Yes	Yes			3			
PRE-013											
PRE-014	LWBS/AMA	Yes	1	Yes			Yes				

- Transferred into ED
- LWBS/AMA
- Died in ED
- Cardiac arrest in ED
- Comfort measures only
- Severe Burn
- Active Seizure
- GI Bleed
- Acute Stroke
- Acute MI
- Trauma

- Yes
- No

Complete This Activity

Step 4: Click “Complete this activity” to submit results for benchmarking report generation

Septic Shock Chart Review

Data tabulate left to right

Record Number	Exclusion Reasons	Measure Population	Comfort Care	Preseers Lactate Performed	Lactate Value	Blood Cultures	Broad Spectrum Antibiotics	30CC/KG IV Fluids	Revelved Vasopressors	Repeat Lactate Value (Optional)	Lactate Clearance (Optional)	Died (In-Hospital)	Delete Row
Pre - 004	Active Seizure	Severe Sepsis	Yes	Yes	32.0	Yes	Yes	Yes	Yes	10.0	Yes	No	🗑️
Pre - 005	Cardiac arrest in ED	Severe Sepsis	Yes	Yes	32.0	Yes	Yes	Yes	Yes	10.0	Yes	No	🗑️
Pre - 006	Transferred into ED	Severe Sepsis	Yes	Yes	32.0	Yes	Yes	Yes	Yes	10.0	Yes	No	🗑️

+ Add New Row

Save

Complete This Activity