

CMS SEPSIS BUNDLE COMPLIANCE GUIDE

SEVERE SEPSIS

Identified based upon clinical criteria (A,B,C) that must be met within 6 hours of each other or physician/APN/PA documentation of severe sepsis.

A. Source of Infection

B. 2 SIRS (Systemic Inflammatory Response Syndrome) Criteria

- Temperature >38.3 C or <36.0 C (>100.9 F or <96.8 F)
- Heart Rate (pulse) >90
- Respiration >20 per minute
- White Blood Cell Count >12,000 or <4,000 or >10% Bands

C. Acute Organ Dysfunction

- Documented Systolic Blood Pressure (SBP) <90 mmHg
- Mean Arterial Pressure (MAP) <65 mmHg
- Creatinine >2.0
- Lactate >2 mmol/L (18.0 mg/dL)
- INR >1.5 or aPTT >60 sec
- Platelet Count <100,000

EXCLUSIONS (must be documented by Physician/APN/PA)

- Patient expires or is placed on comfort measures/palliative care only:
 - Prior to or within 3 hours of the presentation of severe sepsis
 - Prior to or within 6 hours of the presentation of septic shock
- Patient or surrogate refuses blood draws, fluids, or antibiotics prior to or within 6 hours following the presentation of severe sepsis/septic shock
- Patient is a transfer from another hospital or ambulatory surgery center

- Total Bilirubin >2 mg/dl (34.2 mmol/L)
- Physician Documentation indicating >40 mmHg decrease in SBP is related to infection, Severe Sepsis or Septic Shock and not other causes.
- Acute Respiratory Failure evidenced by a new need for invasive or non-invasive mechanical ventilation.

Complete within **3 hours** of Severe Sepsis date/time

- Initial Lactate (6hrs Prior - 3hrs After)
- Blood Cultures [Before ABX] (48hrs Prior - 3hrs After)
- ABX (24hrs Prior - 3hrs After)

Complete within **6 hours** of Severe Sepsis date/time

- Repeat Lactate (for initial lactate >2.0 mmol/L)

Crystalloid Fluid Administration

Initiation of crystalloid fluids prior to, at the time of, or after the presentation of

- Initial Hypotension,
- Initial Lactate Level Result >=4 mmol/L, or
- Physician/APN/PA Documentation of Septic Shock.

Fluids given within **6 hours** prior to, or within **6 hours** following any of the above, are acceptable to count towards the 30 ml/kg volume.

Complete within **6 hours** of Septic Shock date/time

- Vasopressor Administration
(Demonstrated by **Persistent hypotension** after crystalloid fluid administration)
- Physical Exam or Tissue Perfusion Assessment performed by a physician/APN/PA
(Beginning at crystalloid fluid administration date/time)

Persistent Hypotension

Persistent Hypotension in the hour after the conclusion of the 30 mL/kg Crystalloid Fluid Administration, evidenced by **two consecutive** documented recordings of:

- Systolic blood pressure (SBP) <90, or
- Mean arterial pressure <65 or
- Physician/APN/PA documentation indicating a >40 mmHg decrease in SBP is related to infection, severe sepsis or septic shock and not other causes.

During the hour after the conclusion of fluid administration, if hypotension is followed by a normal BP or MAP, then there is no persistent hypotension and vasopressors are not needed.

SEPTIC SHOCK

Identified based upon clinical criteria or physician/APN/PA documentation of septic shock.

Criteria for determining that Septic Shock is present are as follows:

A. Documentation of severe sepsis present

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Persistent Hypotension in the hour after the conclusion of the 30 mL/kg Crystalloid Fluid Administration.

OR

B. Documentation of severe sepsis present

&

Tissue hypoperfusion evidenced by

- Initial Lactate Level Result >=4 mmol/L

**Physician/APN/PA documentation is required for SIRS criteria or a sign of organ dysfunction that is normal for that patient, is due to a chronic condition, is due to an acute condition that is not an infection, or is due to a medication (prior to or within 24 hours after severe sepsis presentation). Inferences should not be made, physician/APN/PA documentation is required and must also include either the abnormal value or reference the abnormal value under consideration. Ex: "Creatinine 3.0, CKD, HD in am," "Continue Warfarin, monitor INR," "Hypotensive after pain meds," "ESRD – Baseline Cr. 2.5-2.8," "Lactate 3.5 due to a seizure."

Table 5.0: Antibiotic Monotherapy, Sepsis

Antibiotic Selection Options (Includes Trade & Generic Name)	Generic Name Crosswalk
Ampicillin/sulbactam	Ampicillin/sulbactam
Avelox	Moxifloxacin
Avycaz	Ceftazidime/avibactam
Cefepime	Cefepime
Cefotaxime	Cefotaxime
Ceftaroline fosamil	Ceftaroline fosamil
Ceftazidime/avibactam	Ceftazidime/avibactam
Ceftazidime	Ceftazidime
Ceftolozane/tazobactam	Ceftolozane/tazobactam
Ceftriaxone	Ceftriaxone
Claforan	Cefotaxime
Doribax	Doripenem
Doripenem	Doripenem
Ertapenem	Ertapenem
Fortaz	Ceftazidime
Imipenem/Cilastatin	Imipenem/Cilastatin
Invanz	Ertapenem
Levaquin	Levofloxacin
Levofloxacin	Levofloxacin
Maxipime	Cefepime
Meropenem	Meropenem
Merrem	Meropenem
Moxifloxacin	Moxifloxacin
Piperacillin/tazobactam	Piperacillin/tazobactam
Primaxin	Imipenem/Cilastatin
Rocephin	Ceftriaxone
Teflaro	Ceftaroline fosamil
Ticarclillin/clavulanate	Ticarclillin/clavulanate
Timentin	Ticarclillin/clavulanate
Unasyn	Ampicillin/sulbactam
Zerbaxa	Ceftolozane/tazobactam
Zosyn	Piperacillin/tazobactam

CATEGORY A antibiotic + **CATEGORY B** antibiotic must **BOTH** be started or given **within 3 hours** of Severe Sepsis

Table 5.1: Antibiotic Generic/Trade Name Crosswalk, Sepsis

Antibiotic Selection Options (Includes Trade & Generic Name)	Generic Name Crosswalk
A. Aminoglycosides	
Amikacin	Amikacin
Garamycin	Gentamicin
Gentamicin	Gentamicin
Kanamycin	Kanamycin
Kantrex	Kanamycin
Nebcin	Tobramycin
Tobramycin	Tobramycin
A. Aztreonam	
Azactam	Aztreonam
Aztreonam	Aztreonam
A. Ciprofloxacin	
Cipro	Ciprofloxacin
Ciprobay	Ciprofloxacin
Ciprofloxacin	Ciprofloxacin
Ciproxin	Ciprofloxacin
B. Cephalosporins (1st and 2nd Generation)	
Ancel	Cefazolin
Cefazolin	Cefazolin
Ceforan	Cefotetan
Cefotetan	Cefotetan
Cefoxitin	Cefoxitin
Ceftin	Cefuroxime
Cefuroxime	Cefuroxime
Mefoxin	Cefoxitin
B. Clindamycin IV	
Cleocin	Clindamycin
Clindamycin	Clindamycin

Table 5.1: Antibiotic Generic/Trade Name Crosswalk, Sepsis

Antibiotic Selection Options (Includes Trade & Generic Name)	Generic Name Crosswalk
B. Daptomycin	
Cubicin	Daptomycin
Daptomycin	Daptomycin
B. Glycopeptides	
Targocid	Teicoplanin
Teicoplanin	Teicoplanin
Telavancin	Telavancin
Vancoicin	Vancomycin
Vancomycin	Vancomycin
Vibativ	Telavancin
B. Linezolid	
Linezolid	Linezolid
Zyvox	Linezolid
B. Macrolides	
Azithromycin	Azithromycin
Erythocin	Erythromycin
Erythromycin	Erythromycin
Erythroped	Erythromycin
Ketek	Telithromycin
Sumamed	Azithromycin
Telithromycin	Telithromycin
Xithrone	Azithromycin
Zithromax	Azithromycin
B. Penicillins	
Ampicillin	Ampicillin
Nafcillin	Nafcillin
Oxacillin	Oxacillin
Penicillin G	Penicillin G