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Sepsis and Other Febrile Illness, without Focal Infection

ORG: M-160 (ISC)

[Link to Codes](#)

MCG Health
Inpatient & Surgical
Care
29th Edition

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Care Planning - Inpatient Admission and Alternatives

Clinical Indications for Admission to Inpatient Care

Note: *Some patients may be appropriate for Observation care. For consideration of observation care, see Sepsis and Other Febrile Illness, without Focal Infection: Observation Care* [ISC](#).

Note: *For patients with clinically active secondary conditions, see Sepsis and Other Febrile Illness, without Focal Infection Multiple Condition Management Guidelines.*

- Admission is indicated for **1 or more** of the following[A][B](6)(7):[NN](#)
 - Hemodynamic instability (6)(7)(10)(11)
 - Bacteremia (if blood cultures performed)
 - Hypoxemia (6)(11)
 - Altered mental status that is severe or persistent [C](7)(11)(12)
 - New coagulopathy (eg, reduced platelet count or new prolonged prothrombin time)[D](13)(14)
 - Tachypnea that persists despite observation care(10)(11)(15)
 - Dehydration that is severe or persistent (16)
 - Inability to maintain oral hydration (eg, needs IV fluid support) that persists after observation care(7)

- o Evidence of end organ dysfunction (eg, rising creatinine, myocardial ischemia, rising liver function tests) that is severe or persists despite observation care(6)(7)
- o Core (rectal) temperature lower than 95 degrees F (35 degrees C) (eg, thought to be due to infection)(17)
- o Parenteral antimicrobial regimen that must be implemented on inpatient basis (eg, infusion or monitoring needs beyond capabilities of outpatient parenteral therapy)(18)
- o Isolation indicated that cannot be performed outside hospital setting[E]

Alternatives to Admission

- Alternatives include(10)(20)(21)(22):[\[I\]](#)
 - o Outpatient care in emergency department, rapid treatment site, urgent care center, or medical office(22)(24)
 - Laboratory and diagnostic testing
 - Consultation and re-examination
 - Start of therapeutic antimicrobial trial if indicated
 - o Observation. See Sepsis and Other Febrile Illness, without Focal Infection: Observation Care [\[E\]](#) ISC guideline as appropriate.
 - o Home care
 - Nursing visit with assessment
 - Laboratory testing
 - Parenteral fluids and medications(18)(23)
 - Further outpatient diagnostic evaluation
 - o Recovery facility(25)
 - Assessment, testing, and treatment
 - Parenteral fluid and medication
 - Management of comorbidities

Hospitalization

Optimal Recovery Course

Day	Level of Care	Clinical Status	Activity	Routes	Interventions	Medications
1	<ul style="list-style-type: none"> • ICU[F] or floor • Social Determinants of Health Assessment • Adult Readmission Risk Assessment • Sepsis and Other Febrile Illness, without Focal Infection: Readmission Risk Assessment • Extended Stay Risk Assessment • Discharge planning 	<ul style="list-style-type: none"> • Clinical Indications met[G] • Possible fever, elevated WBC, and altered mental status 	<ul style="list-style-type: none"> • Activity as tolerated 	<ul style="list-style-type: none"> • IV fluids • Parenteral medications • Enteral feeding or diet as tolerated 	<ul style="list-style-type: none"> • WBC, cultures, chemistries, urinalysis, CXR, other imaging as indicated • Evaluation for source of fever[H] • Possible procedure for source control[I] 	<ul style="list-style-type: none"> • Possible antimicrobial treatment • Possible DVT prophylaxis
2	<ul style="list-style-type: none"> • ICU or floor • Social Determinants of Health Assessment • Adult Readmission Risk Assessment • Sepsis and Other 	<ul style="list-style-type: none"> • Hemodynamic stability • Hypoxemia absent • Tachypnea absent 	<ul style="list-style-type: none"> • Activity as tolerated 	<ul style="list-style-type: none"> • Possible IV fluids • Parenteral or oral medications • Diet as tolerated 	<ul style="list-style-type: none"> • WBC 	<ul style="list-style-type: none"> • Possible antimicrobial treatment • Possible DVT prophylaxis

Febrile Illness,
without Focal
Infection:
Readmission Risk
Assessment

- Extended Stay
Risk Assessment

3	<ul style="list-style-type: none"> Floor Social Determinants of Health Assessment Adult Readmission Risk Assessment Sepsis and Other Febrile Illness, without Focal Infection: Readmission Risk Assessment Extended Stay Risk Assessment 	<ul style="list-style-type: none"> Mental status at baseline Afebrile or fever improved 	<ul style="list-style-type: none"> Activity as tolerated 	<ul style="list-style-type: none"> Oral hydration Diet as tolerated Parenteral or oral medications 	<ul style="list-style-type: none"> WBC 	<ul style="list-style-type: none"> Possible antimicrobial treatment Possible DVT prophylaxis
4	<ul style="list-style-type: none"> Social Determinants of Health Assessment Adult Readmission Risk Assessment Sepsis and Other Febrile Illness, without Focal Infection: Readmission Risk Assessment Extended Stay Risk Assessment Floor to discharge[J] Complete discharge planning 	<ul style="list-style-type: none"> Hemodynamic stability Afebrile or temperature acceptable for next level of care Hypoxemia absent Tachypnea absent Cultures negative or infection identified and under adequate treatment Mental status at baseline Metabolic derangement (eg, dehydration, acidosis) absent End organ dysfunction (eg, myocardial ischemia, renal failure) absent Discharge plans and education understood 	<ul style="list-style-type: none"> Ambulatory or acceptable for next level of care 	<ul style="list-style-type: none"> Oral hydration[K] Oral medications or regimen acceptable for next level of care[L] Oral diet or acceptable for next level of care 	<ul style="list-style-type: none"> Isolation not indicated, or is performable at next level of care WBC 	<ul style="list-style-type: none"> Antimicrobial treatment not necessary or treatment at next level of care arranged[M]

(1)(6)(7)(9)(24)(26)(27)(28)(29) **INN**

Recovery Milestones are indicated in **bold**.

Goal Length of Stay: 3 days

Note: Goal Length of Stay assumes optimal recovery, decision making, and care. Patients may be discharged to a lower level of care (either later than or sooner than the goal) when it is appropriate for their clinical status and care needs.

Extended Stay

Note: See Sepsis and Other Febrile Illness, without Focal Infection Multiple Condition Management Benchmarking Table for more detailed information.

Minimal (a few hours to 1 day), Brief (1 to 3 days), Moderate (4 to 7 days), and Prolonged (more than 7 days).

- Extended stay beyond goal length of stay may be needed for(1)(6)(9):
 - Failure to meet discharge criteria (recovery milestones within final day in Optimal Recovery Course)
 - Expect brief stay extension.
 - Persistent Hypotension
 - Expect moderate to prolonged stay extension.
 - Bacteremia
 - Certain identified organisms may require further parenteral antibiotic treatment or change in initial antibiotic selection.
 - Expect brief stay extension.
 - Lack of improvement on antimicrobial treatment (eg, continued fever)(34)
 - Anticipate increased antibiotic coverage, repeat cultures, and invasive and diagnostic procedures.
 - Expect brief stay extension.
 - High-risk febrile neutropenia(35)
 - Expect brief stay extension.
 - Active comorbid illness (eg, heart failure, chronic renal failure, pulmonary hypertension)(36)
 - Anticipate ongoing management of comorbidities.
 - Expect brief stay extension.
 - Respiratory failure (eg, need for assisted ventilation,[N] acute respiratory distress syndrome (ARDS))(6)(37)
 - Anticipate ICU care, IV sedation, monitoring of blood gases, and oxygen saturation.
 - Inability to maintain adequate oxygenation may require high-flow oxygen, ventilatory assistance,[N] or extracorporeal membrane oxygenation.
 - Expect brief to moderate stay extension.
 - New-onset atrial fibrillation[O](38)
 - Patient may require correction of electrolytes or acid-base disorder and adjustment or discontinuation of potentially arrhythmogenic agents.
 - Anticipate possible antiarrhythmic or rate control agent.
 - Expect brief stay extension.
 - Sepsis-associated Acute kidney injury (stage 2) or Acute renal failure (stage 3 acute kidney injury) (6)(39)
 - Patient may require renal replacement therapy.
 - Expect brief stay extension.
 - Sepsis-associated encephalopathy(12)
 - Patient may experience delirium, altered mental status, or coma.
 - Anticipate EEG and neuroimaging.
 - Expect brief stay extension.
 - Sepsis-associated weakness, polyneuropathy, or critical illness myopathy(12)
 - Patient may require prolonged mechanical ventilation.
 - Anticipate EMG and nerve conduction studies.
 - Expect moderate to prolonged stay extension.
 - Pre-existing malnutrition(28)

- Patients with sepsis and malnutrition have a higher risk of complications and mortality.
- Expect brief stay extension.

See Common Complications and Conditions [ISC](#) for further information.

Discharge

Discharge Planning

- Discharge planning includes[P]:
 - Assessment of needs and planning for care, including(41)(42):
 - Develop and modify treatment plan (involving multiple providers) as needed.
 - Evaluate and address preadmission functioning as needed.
 - Evaluate and address psychosocial status issues as indicated. See Psychosocial Assessment [SR](#) for further information.
 - Evaluate and address social determinants of health (eg, housing, food). See Social Determinants of Health Screening Tool [SR](#) for further information.(40)
 - Evaluate and address patient or caregiver preferences as indicated.
 - Identify skilled services needed at next level of care, with specific attention to:
 - Central venous access device management (eg, peripherally inserted central catheter, tunneled catheter, implanted port)(18)
 - Infusion (IV) therapy management
 - Medication management, adherence instruction, and side effects assessment(43)(44)
 - Early identification of anticipated discharge destination; options include(42)(45):
 - Home; considerations include:
 - Home safety assessment. See Home Safety Assessment [SR](#) for further information.
 - ☐ Patient safe to go home; examples include(46)(47)(48):
 - Medical status stable for patient's condition
 - Functional care can safely be provided with available resources.
 - Mental status stable for patient's condition
 - Medication availability confirmed and reconciliation complete
 - Patient/caregiver education completed with written discharge instructions provided
 - Community resources identified and referrals made, as needed
 - Home care arranged, if indicated
 - Necessary medical equipment delivery arranged or available in home, if indicated
 - Necessary medical supplies ordered, or patient/caregiver can obtain, if indicated
 - Access to follow-up care
 - Self-management ability if appropriate. See Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL) Assessment [SR](#) for further information.
 - Caregiver need, ability, and availability
 - Post-acute skilled care or custodial care as indicated. See Discharge Planning Tool [SR](#) for further information.
- Transitions of care plan complete, including(42)(45)(49):
 - Patient and caregiver education complete.
 - See Teach Back Tool [SR](#) for further information.
 - See Sepsis and Other Febrile Illness, without Focal Infection: Patient Education for Clinicians [SR](#) for further information.
 - ☐ Medication reconciliation completion includes(44)(50):
 - Compare patient's discharge list of medications (prescribed and over-the-counter) against provider's admission or transfer orders.
 - Assess each medication for correlation to disease state or medical condition.
 - Report medication discrepancies to prescribing provider, attending physician, and primary care provider, and ensure accurate medication order is identified.
 - Provide reconciled medication list to all treating providers.

- Confirm that patient or caregiver can acquire medication.
- Educate patient and caregiver.
 - Provide complete medication list to patient and caregiver.
 - Importance of presenting personal medication list to all providers at each care transition, including all provider appointments
 - Reason, dosage, and timing of medication (eg, use "teach-back" techniques)(51)
- Encourage communication between patient, caregiver, and pharmacy for obtaining prescriptions, setting up home medication delivery, and reviewing for drug-drug interactions.
- See Medication Reconciliation Tool [↗](#) SR for further information.
- Plan communicated to patient, caregiver, and all members of care team, including(48)(52):
 - Inpatient care and service providers
 - Primary care provider
 - All post-discharge care and service providers
- Appointments planned or scheduled, which may include:
 - Primary care provider
 - Infectious disease specialist(53)
 - Specialists for management of comorbidities as needed(53)
 - Other
- Outpatient testing and procedure plans made, which may include:
 - Laboratory testing
 - Other
- Referrals made for assistance or support, which may include:
 - Financial, for follow-up care, medication, and transportation
 - Tobacco use treatment(54)
 - Other
- Medical equipment and supplies coordinated (ie, delivered or delivery confirmed), which may include:
 - IV infusion supplies
 - Other

Discharge Destination

- Post-hospital levels of admission may include:
 - Home.
 - Home healthcare. See Home Care Indications for Admission Section [↗](#) HC in Sepsis and Other Febrile Illness guideline in Home Care.
 - Recovery facility care. See Recovery Facility Care Indications for Admission Section [↗](#) RFC in Sepsis and Other Febrile Illness guideline in Recovery Facility Care.

Evidence Summary

Background

If a specific infectious diagnosis is made or strongly suspected, including in patients with concomitant bacteremia, the appropriate guideline for that condition should be used whenever possible (eg, cellulitis, COVID-19, diverticulitis, endocarditis, gastroenteritis, meningitis, osteomyelitis, pelvic inflammatory disease, pericarditis, pneumonia, septic arthritis, urinary tract infection). For patients with a generalized febrile illness suspected or known to be of viral etiology (eg, positive influenza or COVID-19 test), the Viral Illness, Acute [↗](#) ISC (influenza positive) or COVID-19 [↗](#) ISC (COVID-19 positive) guideline would be appropriate. For a generalized febrile illness not specifically covered by its own guideline (eg, cellulitis, pneumonia) and the etiology is not clearly viral (ie, may be viral, bacterial, or fungal), the Sepsis and Other Febrile Illness, without Focal Infection guideline is appropriate.

Criteria

The evidence for the clinical indications found in this guideline includes 10 published peer reviewed articles, 2 specialty society or other evidence-based guidelines, and 4 book sections.

Analysis of national hospital discharge data for a commercially insured population shows 75.2% of patients seen in an emergency department with a principal diagnosis of sepsis or febrile illness without focal infection were admitted to inpatient care.(8) **(EG 3)** Analysis of hospital discharge data for a Medicare-insured population shows 93.7% of patients seen in an emergency department with a principal diagnosis of sepsis or febrile illness without focal infection were admitted to inpatient care.(8) **(EG 3)** Analysis of an all-payer database shows a mean length of stay of 6.8 days for patients admitted to inpatient care.(9) **(EG 3)**

Consensus guidelines and an emergency medicine textbook state that sepsis is a medical emergency and that patients with signs of septic shock such as hemodynamic instability, altered mental status, and hypoxemia should be admitted to inpatient status, often to the intensive care unit.(6)(10)(11) **(EG 2)**

Alternatives

Most hemodynamically stable patients with acute febrile illness without serious active comorbidity, and who are able to maintain hydration, do not require hospitalization.(10)(20) **(EG 2)** In appropriate patients, outpatient parenteral antimicrobial therapy may be initiated without initial hospitalization.(18)(23) **(EG 2)**

Hospitalization

A study of 256 patients (mean age 79 years) with sepsis due to respiratory infection, pyelonephritis, or primary bloodstream infection randomized to either procalcitonin-guided antibiotic de-escalation or standard of care found that the procalcitonin-guided group had shorter antibiotic courses (median 5 vs 10 days), lower in-hospital (14% vs 25%) and 28-day (15% vs 28%) mortality rates, fewer infection-related adverse events (eg, new *Clostridioides difficile* or multidrug-resistant organism) (7% vs 15%), less antibiotic-associated diarrhea (19% vs 37%) or acute kidney injury (7% vs 18%), and shorter median hospital stays.(30) **(EG 1)**

Readmission risk and reduction: A study of 3620 patients (mean age 59 years) hospitalized for sepsis found, after multivariate analysis, that a diagnosis of malignancy was independently associated with an increased risk of readmission within 30 days.(31) **(EG 2)** Multivariate analysis of 1697 adult patients with culture-positive sepsis found that positive blood cultures with extended spectrum beta-lactamase organisms or *Bacteroides* species were independently associated with an increased risk of readmission at 30 days.(32) **(EG 2)** A study of 691 patients (mean age 63.7 years) hospitalized for sepsis who were at high risk for hospital readmission randomized to either a postdischarge 30-day nurse-navigator run transition program or to usual postdischarge care found that, among 660 survivors to hospital discharge, the transition program group had lower 30-day all-cause mortality (5.1% vs 8.0%; adjusted odds ratio (aOR) 0.55, 95% confidence interval (CI) 0.47 to 0.66) and 30-day all-cause readmission rates (21.3% vs 25.7%; aOR 0.80, 95% CI 0.65 to 0.98).(33) **(EG 1)**

Length of Stay

Analysis of 84,685 patients (median age 76 years) admitted with sepsis reported 25% were discharged in 2.3 days or less.(27) **(EG 2)** Analysis of a database of 161,606 adults (mean age 78 years) admitted with a principal diagnosis code for sepsis reported 25% of patients were discharged in 3 days or less.(28) **(EG 2)** Analysis of the National Institutes of Health (NIH) All of Us database including 8909 patients (median age 54 years) hospitalized for sepsis reported that 25% were discharged within 3.4 days.(29) **(EG 2)** Analysis of national hospital discharge data shows 32% of hospitalized adult patients with principal diagnoses related to febrile illness without focal infection were discharged in 3 days or less.(9) **(EG 3)**

Rationale

Use of this MCG care guideline helps the clinician identify patient-specific complex clinical factors that make it reasonable to expect a necessity for hospital care across 2 or more midnights. The evidence-based clinical criteria assist the clinician in the decision to appropriately admit a patient to inpatient care. For Medicare enrollees, MCG care guidelines also support the clinician in the decision to appropriately admit a patient to inpatient care when there is not an expectation of 2 or more midnights of hospital care (eg, CMS' Two-Midnight Rule exceptions).

Use of these evidence-based clinical criteria to support decision making around the need for inpatient treatment is of clinical benefit to the patient and is crucial for quality patient care. Use of evidence-based clinical criteria ensures patients receive the most appropriate care for their specific condition, reduces unnecessary risks, promotes recovery, and provides a standard that can reduce disparities in care. Evidence-based clinical criteria not only help align treatment decisions with best practice, but they can also help reduce unwarranted variation in care by fostering consistency and equality in healthcare provision across regions and facilities. Appropriate use of the evidence-based clinical criteria in conjunction with the Supplemental Medicare Criteria ensures Medicare patients receive full access to Medicare benefits (eg, inpatient care), without risk of delay or decreased access, based on

variables such as clinical severity of illness, length of provision of medically necessary hospital-level care, or satisfaction of specified Medicare criteria as directed by CMS. Use of these criteria will help ensure that the patient receives necessary care in the appropriate setting.

Related CMS Coverage Guidance

This guideline supplements but does not replace, modify, or supersede existing Medicare regulations or applicable National Coverage Determinations (NCDs) or Local Coverage Determinations (LCDs).

Code of Federal Regulations (CFR): 42 CFR 412.3(19); 42 CFR 419.22(55); 42 CFR 422.101(56)

Internet-Only Manual (IOM) Citations: CMS IOM Publication 100-02, Medicare Benefit Policy Manual, Chapter 1 - Inpatient Hospital Services Covered Under Part A(57); CMS IOM Publication 100-02, Medicare Benefit Policy Manual, Chapter 6 - Hospital Services Covered Under Part B(58); CMS IOM Publication 100-02, Medicare Benefit Policy Manual, Chapter 15 - Covered Medical and Other Health Services(59); CMS IOM Publication 100-08, Medicare Program Integrity Manual, Chapter 6, Section 6.5 - Medical Review of Inpatient Hospital Claims for Part A Payment(60)

Medicare Coverage Determinations: Medicare Coverage Database(61)

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