



Managing Infections

OBJECTIVE

The objective of this Clinical Practice Guideline (CPG) is to provide evidence-based practice recommendations for the management of skin infections (including cellulitis) and the prevention and management of sepsis. Objectives and measurable health outcomes with respect to Care Management are included. In addition, the CPG outlines the organizations that WellCare aligns with regarding this topic and Measureable Health Outcomes.

OVERVIEW

Sepsis affects over 750,000 persons annually, with a prevalence of three cases per 1,000 persons. Mortality rates are 25 – 30% for severe sepsis and 40 – 70% for septic shock. Sepsis is responsible for 20% of all in-hospital deaths each year (over 200,000) – the same number of annual deaths from acute myocardial infarction. Common sites of infection include the respiratory, genitourinary, and gastrointestinal systems; skin and soft tissue are also common. Fever is often the first manifestation of sepsis; pneumonia is the most common presentation leading to sepsis. Early goal-directed therapy completed within the first six hours of sepsis recognition significantly decreases in-hospital mortality. Members who survive sepsis have an increased risk of posttraumatic stress disorder, cognitive dysfunction, physical disability, and persistent pulmonary dysfunction.¹ Sepsis and septic shock are major healthcare problems, affecting millions of people around the world each year, killing one in four (and often more), and increasing in incidence. Similar to polytrauma, acute myocardial infarction, or stroke, the speed and appropriateness of therapy administered in the initial hours after severe sepsis develops are likely to influence outcome. “Cellulitis and abscess” was found to be one of the top 20 causes for readmission in WellCare’s overall population. Sepsis, which can develop from cellulitis and abscess, was also in the top 20 list.²

- *Cellulitis* is a common skin infection caused by bacteria that affects the middle layer of the skin (dermis) and the tissues below; muscle can also be affected.³
- *Sepsis* is defined as life-threatening organ dysfunction caused by a dysregulated host response to infection.⁴
- *Septic Shock* is a subset of sepsis in which particularly profound circulatory, cellular, and metabolic abnormalities are associated with a greater risk of mortality than with sepsis alone.⁴

Pneumonia was also recognized as a Top 20 driver of readmission in the WellCare population and may also lead to sepsis. WellCare outlines general prevention and care guidelines for pneumonia in a separate Clinical Practice Guideline, *Pneumonia (HS-1062)*.

Hierarchy of Support

GUIDELINE HIERARCHY

CPGs are updated annually or as necessary due to updates made to guidelines or recommendations by the Society of Critical Care Medicine (SCCM), Infectious Diseases Society of America (IDSA), and American College of Emergency Physicians (ACEP). When there are differing opinions noted by national organizations, WellCare will default to the member’s benefit structure as deemed by state contracts and Medicaid / Medicare regulations. If there is no specific language pertaining to managing skin infections (including sepsis), WellCare will default (in order) to the following:

- National Committee for Quality Assurance (NCQA);
- United States Preventive Services Task Force (USPSTF), National Quality Strategy (NQS), Agency for Healthcare Research and Quality (AHRQ);
- Specialty associations, colleges, societies, etc. (e.g., American Academy of Family Physicians, American Congress of Obstetricians and Gynecologists, American Cancer Society, etc.).

Links to websites within the CPGs are provided for the convenience of Providers. Listings do not imply endorsement by WellCare of the information contained on these websites. NOTE: All links are current and accessible at the time of MPC approval.

WellCare aligns with the SCCM, IDSA, and ACEP on the topic of managing skin infections (including sepsis). Highlights from their respective publications are noted below.

SOCIETY OF CRITICAL CARE MEDICINE (SCCM)

The Society of Critical Care Medicine (SCCM) released *The Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3)* in 2016. The updated definitions and clinical criteria offer greater consistency for epidemiologic studies and clinical trials, and facilitate earlier recognition and more timely management of patients with sepsis or at risk of developing sepsis. The full SCCM guideline is available at <http://jamanetwork.com/journals/jama/fullarticle/2492881>.⁴

INFECTIOUS DISEASES SOCIETY OF AMERICA

The Infectious Diseases Society of America (IDSA) published *International Guidelines for Management of Severe Sepsis and Septic Shock*. Recommendations are offered by the IDSA on initial resuscitation and infection issues focus on screening and performance measurement, diagnosis, antimicrobial therapy, and source control. The IDSA also provides recommendations for hemodynamic support and adjunctive therapy focus on vasopressors, inotropic therapy, and corticosteroids as well as fluid therapy for patients with severe sepsis. The guideline includes a summary of evidence that compares norepinephrine with dopamine for patients with severe sepsis.²

Recommendations are also available for other supportive therapy for severe sepsis including blood product administration, immunoglobulins, and selenium. A history of recommendations regarding the use of Recombinant Activated Protein C (rhAPC) is included as well as information on mechanical ventilation of sepsis-induced Acute Respiratory Distress Syndrome (ARDS). Other information includes: sedation, analgesia, and neuromuscular blockade; glucose control; renal replacement therapy; bicarbonate therapy; deep vein thrombosis (DVT) prophylaxis; stress ulcer prophylaxis; nutrition; and setting goals of care. A section for pediatric patients with severe sepsis is also included. The full IDSA guideline can be accessed [here](#).²

AMERICAN COLLEGE OF EMERGENCY PHYSICIANS (ACEP)

The American College of Emergency Physicians (ACEP) Expert Panel on Sepsis developed DART, an evidence-driven tool to guide the early recognition and treatment of sepsis and septic shock. The tool aims to help Detect, Act, Reassess, and Titrate (DART) patients with sepsis. To view the tool visit <https://www.acep.org/DART/>.⁵

Evidence Based Practice

MEASUREMENT OF COMPLIANCE

WellCare is committed to adhering to the measures and standards published by the Centers for Medicare and Medicaid Services (CMS) and the National Committee for Quality Assurance (NCQA). Please reference WellCare's Clinical Policy Guiding Document titled *Measures of Compliance*.

NOTE: To access Clinical Policy Guiding Documents visit www.wellcare.com – select the Provider tab, then “Tools” and “Clinical Guidelines”.

Care Management

The goals for Care Management is to support the member's ability to self-promote their health, encourage healthy behaviors to minimize risks of disease and/or complications thereof, and remove barriers preventing the member from achieving those goals. Primary symptoms for assessment and member education include:^{3,6,7}

Member should call physician right away to report worsening signs of infection such as:

Member should seek immediate medical care for signs of gangrene, septicemia or sepsis:

- Increased redness or heat at the affected area(s)
- Increased pain / tenderness
- Increased size of affected area
- New symptomatic areas or new open areas on body
- Increased swelling or pus from the affected area
- Increased tightness and glossiness of the skin
- Tender swelling or lumps in groin, neck, armpits
- Changes in color of skin (white, blue, bronze, black) or red streaks that spread
- Foul-smelling discharge
- Persistent or severe pain
- Fever chills and/or sweating
- Rapid breathing and heart rate
- Confusion and disorientation

Integrated care management of skin infections involves:

- Monitoring for signs of organism resistance and susceptibility to prescribed antibiotics
- Coaching related to lifestyle changes required to promote skin healing
- Strategies for pain management, including non-pharmacological
- Vaccinating against influenza, pneumonia and meningitis

Assess for risk of depression and poor coping skills and share with appropriate provider(s) if risks identified.

MEASURABLE HEALTH OUTCOMES

Targeted Health Outcomes (Extended Program Goals) result from successful member self-management (see Case Management Objectives).

1. The member reports fewer or lessening symptoms over a specific period of time after the start of Case Management engagement. Member-specific goals should reference member's individual symptoms. Compare member's symptom assessment responses, initial to subsequent assessments.
2. The member experiences no symptoms requiring acute medical care and intervention. Compare pre- and post-engagement utilization frequency for cellulitis or septicemia. Monitor for ED and inpatient authorization/utilization related to the primary diagnosis of cellulitis or septicemia. In absence of ED and inpatient utilization, authorizations and claims data, or to otherwise demonstrate less frequent need for acute medical intervention, CM may use Provider and/or Member narrative.

CASE MANAGEMENT GOALS

Case Goals should target specific care gaps and/or adherence issues, and measure the member's progress towards self-management and adherence which will lead to the targeted health outcomes above. Examples:

- Member's prescription refills demonstrate at least an 80% adherence rate (verified by claims or member/provider narrative) over last 30 days.
- Member describes the use of infection prevention measures (such as handwashing) over the last 30 days and has received annual flu vaccine and pneumococcal vaccine if appropriate for age and risk factors.
- Member describes daily routine that demonstrates appropriate inspection and care of skin over the last 30 days, including wearing footwear and clothing that protects healthy skin and promotes wound healing.
- Member describes diet and fluid intake over the last 30 days that supports adequate nutrition and hydration (per physician's direction), to support wound healing.
- Specific for Members requiring hospitalization: The Member participates in provider follow-up visit within 7 days of hospital discharge.

CASE MANAGEMENT OBJECTIVES

Case Management objectives should focus on improving the member's self-management skills including:^{8,9,10}

- Keeping skin clean, dry, moisturized
- Washing hands frequently to help prevent the spread of infection
- Closely adhering to the physician's recommendations for wound care / skin care
- Wearing compression stockings as recommended by physician
- Recognizing and reporting worsening symptoms right away or getting immediate care for emergent symptoms
- Not wearing tight clothing or clothes that hold in moisture
- Avoid skin care products (like soaps and moisturizers) that have fragrances, dyes or perfumes.
- Staying hydrated

- Understanding ways to control pain
- Wearing footwear that fit well, protect your feet, and provide enough room for your feet
- For members with diabetes, visiting a podiatrist regularly
- For all members, visiting physician(s) as scheduled
- Using medications as ordered for the full course, including antibiotics and topical medicines (put on the skin)
- Following physician-prescribed posturing and activity (examples: elevation of the limb, non-weight bearing)
- Following diet per doctor's recommendations (may include increased intake of glucose, protein, polyunsaturated fatty acids, and vitamin C among other necessary nutrients)

MEMBER EDUCATIONAL RESOURCES

WellCare contracts with Krames/StayWell for Member educational materials utilized by Case Managers. Items are available to review with Members to address knowledge gaps. Case Managers verbally educate Members on the topics below related to managing infections. (Titles may also be sent to the member).

- Discharge Instructions for Cellulitis
- Cellulitis Pediatric
- Discharge Instructions for Cellulitis (Child)
- Sepsis
- Sepsis in a Child
- Understanding Sepsis

Providers may wish to research the titles above related to managing infections that Case Managers utilize.

Related WellCare Guidelines

In addition to the information contained in this document, please reference the following CPGs: *Pneumonia (HS-1062)*.

NOTE: Clinical Policies can be accessed by going to www.wellcare.com – select the Provider tab, then “Tools” and “Clinical Guidelines”.

References

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Medical Policy Committee Approval History

Date	History and Revisions by the Medical Policy Committee
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