



## Pneumonia

### OBJECTIVE

The objective of this Clinical Practice Guideline (CPG) is to provide evidence-based practice recommendations for the management of pneumonia including the prevention and management of sepsis. The CPG discusses how to identify symptoms that require prompt medical attention as well as objectives and measureable health outcomes with respect to Care Management. In addition, the CPG outlines the organizations that WellCare aligns with regarding pneumonia and relevant Measurements of Compliance and Measureable Health Outcomes.

### OVERVIEW

In the Fall of 2016, pneumonia was found to be one of the top 20 causes for readmission in WellCare's overall population. Sepsis, which can develop from pneumonia, was also on that top 20 list. Pneumonia is a bacterial, viral, or fungal infection of one or both sides of the lungs that causes the air sacs, or alveoli, of the lungs to fill up with fluid or pus. Symptoms vary and may include a cough with phlegm (a slimy substance), fever, chills, and trouble breathing. The severity of pneumonia depends on the type of germ causing the lung infection, the Member's age and overall health. Pneumonia is considered serious for: children under age five; adults over age 65; those with certain conditions such as heart failure, diabetes, or COPD; and Members with weakened immune systems due to HIV/AIDS, chemotherapy, or organ or blood and marrow stem cell transplant procedures. Treatment options are based on the type of pneumonia.<sup>1</sup>

## Hierarchy of Support

### GUIDELINE HIERARCHY

CPGs are updated annually or as necessary due to updates made to guidelines or recommendations by the Infectious Diseases Society of America (IDSA) and Pediatric Infectious Diseases Society (PIDS). 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 pneumonia, 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 IDSA and PIDS regarding pneumonia. Highlights from their publications are noted below.

### **INFECTIOUS DISEASE SOCIETY OF AMERICA (IDSA)**

The Infectious Diseases Society of America (IDSA) developed evidenced-based guidelines for management of those at risk for hospital-acquired pneumonia (HAP) and ventilator-associated pneumonia (VAP). The objective of the guideline (click [here](#)) is to provide guidance for the management of otherwise healthy adults with HAP or VAP in outpatient and inpatient settings. Recommendations center around the following:<sup>2</sup>

- Microbiologic methods to diagnose VAP and HAP
- The use of biomarkers and the clinical pulmonary infection score to diagnose VAP and HAP
- Treatment of ventilator-associated tracheobronchitis
- Initial treatment of VAP and HAP
- Pharmacokinetic / pharmacodynamics optimization of antibiotic therapy
- The role of inhaled antibiotic therapy
- Pathogen-specific therapy
- Length of therapy

### **PEDIATRIC INFECTIOUS DISEASES SOCIETY & INFECTIOUS DISEASES SOCIETY OF AMERICA (IDSA)**

The Pediatric Infectious Diseases Society (PIDS) and the Infectious Diseases Society of America (IDSA) developed evidenced-based guidelines for management of infants and children with community-acquired pneumonia (CAP). The objective of the joint guideline (click [here](#)) is to provide guidance for the management of otherwise healthy infants and children with CAP in outpatient and inpatient settings. Recommendations center around the following:<sup>3</sup>

- Site-of-Care Management Decisions
- Diagnostic Testing for Pediatric CAP
- Anti-Infective Treatment
- Adjunctive Surgical and Non-Anti-Infective Therapy for Pediatric CAP
- Management of the Child Not Responding to Treatment
- Discharge Criteria
- Prevention

## **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](http://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:<sup>4,5,6</sup>

Member should call physician right away to report worsening (or returning) signs of pneumonia such as:

- Cough with sputum associated with fever.
- Increased shortness of breath
- Chest pain when you breathe or cough
- Feeling suddenly worse

In infants and children, report the following right away:

- Nausea, loss of appetite, diarrhea, vomiting
- Appear restless, sick, or tired and without energy

Integrated care management of pneumonia involves:

- Monitoring for signs of organism resistance and susceptibility to prescribed antibiotics / antivirals / antifungals

Member should seek immediate medical care for symptoms of severe infection such as:

- High fever
- Chills
- Sweaty or clammy skin
- Rapid breathing and heart rate
- Confusion and disorientation

- Monitoring for signs of spread of infection to a systemic infection
- Strategies for managing cough, production of phlegm and keeping airway clear
- 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.
  - To measure successful member self-management, Case Management uses member's response to symptom assessment responses, comparing initial to subsequent assessment responses.
2. The Member experiences no symptoms requiring acute medical care and intervention. The case manager compares the recent utilization frequency for pneumonia or septicemia to the frequency prior to CM engagement.
  - To measure successful member self-management, CM monitors for ED and inpatient authorization/utilization related to the primary diagnosis of pneumonia 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 rest periods that promotes recovery over last 14 days and has support in place to prevent member from having to exert self, minimizing risk for relapse.
- 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:<sup>7,8</sup>

- Washing hands frequently to help prevent the spread of infection.
- Avoiding tobacco use and second-hand smoke.
- Recognizing and reporting worsening symptoms right away or getting immediate care for emergent symptoms.
- Drinking plenty of fluids to help loosen secretions and bring up phlegm.
- Getting lots of rest.
- Planning for a period of recovery to maintain progress and avoid relapse; this may include:
  - Arranging for help around the house and for child care; or
  - Working with your physician and employer to plan adequate rest prior to returning to work.
- Using only physician-ordered medications:
  - If prescribed antibiotics, taking all the medicine through to the last day prescribed even if feeling better.
  - Check with the provider before taking any over the counter fever reducers.
  - Avoid cough medicines without talking to the provider as coughing is a way the body rids of an infection.
- Seeing physician(s) as scheduled.
- Talking with the provider about using flu and/or pneumonia vaccines to prevent future infection.

**OTHER CONSIDERATIONS**

Members who fall under this CPG are potentially at risk for future infection as well. Pneumococcal vaccines are particularly important for:<sup>9</sup>

- Adults who are 65 years old or older;
- People who have chronic (ongoing) diseases, serious long-term health problems, or weak immune systems. Examples may include:
  - People who have cancer, HIV/AIDS, asthma, sickle cell disease, or damaged or removed spleens
  - People who smoke
  - Children younger than five years old
  - Children five years of age or older with certain medical conditions (e.g., heart or lung diseases, cancer).

Because many people get pneumonia after having influenza or the flu, the annual flu vaccine is also recommended. The pneumococcal vaccination is only recommended for patients with risk factors in those under age 65. Individuals over age 65 patient should get both vaccines, one year apart.

**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 pneumonia.

NOTE: Links are internal for WellCare Care Management staff.

- |  |                                    |
|--|------------------------------------|
| • What is Pneumonia?                       | • Ventilator-Associated Pneumonia  |
| • When You Have Pneumonia                  | • Health Care-Associated Pneumonia |
| • Pneumonia Treatment                      | • Pneumococcal Vaccination         |
| • Pneumonia in Children                    | • Sepsis                           |
| • Preventing Pneumonia                     | • Sepsis in a Child                |
| • Mycoplasma Pneumonia (Walking Pneumonia) | • Understanding Sepsis             |

These materials are in the approval process and will be available for member educational mailing in the future. Providers may wish to research the titles above related to pneumonia that Case Managers utilize with Members.

**Related WellCare Guidelines**

Of note, “cellulitis and abscess” 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 cellulitis and abscess in a separate Clinical Practice Guideline (CPG), *Managing Infections (HS-1037)*. Other available preventive CPGs include: *Adult: HS-1018, Adolescent: HS-1051, Pediatric: HS-1019, and Older Adults: HS-1063*.

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

**References**

1. Pneumonia. National Heart, Lung, and Blood Institute Web site. <https://www.nhlbi.nih.gov/health/health-topics/topics/pnu>. Published September 26, 2016. Accessed November 21, 2016.
2. Kalil AC, Metersky ML, Klompas M, Muscedere J, Sweeney DA, Palmer LB, et al. Management of adults with hospital-acquired and ventilator-associated pneumonia: 2016 clinical practice guidelines by the Infectious Diseases Society of America and the American Thoracic Society. *Clin Infect Dis*. 2016. doi: 10.1093/cid/ciw353.
3. Bradley JS, Byington CL, Shah SS, Alverson B, Carter ER, Harrison C, et al. The management of community-acquired pneumonia in infants and children older than 3 months of age: clinical practice guidelines by the Pediatric Infectious Diseases Society and the Infectious Diseases Society of America. DOI: 10.1093/cid/cir531. Published 2011. Accessed November 21, 2016.
4. Sepsis fact sheet. National Institute of General Medical Sciences Web site. [https://www.nigms.nih.gov/Education/pages/factsheet\\_sepsis.aspx](https://www.nigms.nih.gov/Education/pages/factsheet_sepsis.aspx). Published August 2014. Accessed November 21, 2016.
5. Pneumonia. National Heart, Lung, and Blood Institute Web site. <https://www.nhlbi.nih.gov/health/health-topics/topics/pnu>. Published September 26, 2016. Accessed November 21, 2016.
6. Pneumonia. National Library of Medicine. <https://medlineplus.gov/pneumonia.html>. Published November 18, 2016. Accessed November 21, 2016.
7. Living With. National Heart, Lung, and Blood Institute Web site. <https://www.nhlbi.nih.gov/health/health-topics/topics/pnu/livingwith>. Published September 26, 2016. Accessed November 21, 2016.
8. Diagnosing and treating pneumonia. American Lung Association Web site. <http://www.lung.org/lung-health-and-diseases/lung-disease-lookup/pneumonia/diagnosing-and-treating.html>. Published October 6, 2016. Accessed November 21, 2016.
9. Prevention. National Heart, Lung, and Blood Institute Web site. <http://www.nhlbi.nih.gov/health/health-topics/topics/pnu/prevention>. Published September 26, 2016.

Accessed November 21, 2016.

### Disclaimer

Clinical Practice Guidelines (CPGs) made available by WellCare are informational in nature and are not a substitute for the professional medical judgment of treating physicians or other health care practitioners. CPGs are based on information available at the time and may not be updated with the most current information available at subsequent times. Individuals should consult with their physician(s) regarding the appropriateness of care or treatment options to meet their specific needs or medical condition. Disclosure of a CPG is not a guarantee of coverage. Members of WellCare health plans should consult their individual coverage documents for information regarding covered benefits. WellCare does not offer medical advice or provide medical care, and therefore cannot guarantee any results or outcomes. WellCare does not warrant or guarantee, and shall not be liable for any deficiencies in the information contained herein or for any inaccuracies or recommendations made by independent third parties from whom any of the information contained herein was obtained. All links are current at time of approval by the Medical Policy Committee (MPC). Lines of business (LOB) are subject to change without notice; current LOBs can be found at [www.wellcare.com](http://www.wellcare.com) – select the Provider tab, then “Tools” and “Clinical Guidelines”.

*Easy Choice Health Plan ~ Harmony Health Plan of Illinois ~ Missouri Care ~ 'Ohana Health Plan, a plan offered by WellCare Health Insurance of Arizona ~ Staywell of Florida  
WellCare (Arkansas, Connecticut, Florida, Georgia, Illinois, Kentucky, Louisiana, Mississippi, Nebraska, New Jersey, New York, South Carolina, Tennessee, Texas) ~ WellCare Prescription Insurance*

### Medical Policy Committee Approval History

| Date       | History and Revisions by the Medical Policy Committee  |
|------------|--|
| 10/10/2017 | <ul style="list-style-type: none"> <li>• Approved by MPC. No changes.</li> </ul>   |
| 12/8/2016  | <ul style="list-style-type: none"> <li>• Approved by MPC. New. Developed with CM, DM, QI, UM, BH and the Chief Medical Directors.</li> </ul> |