consensus statement

Management of Community-Acquired Pneumonia in the Home*

An American College of Chest Physicians Clinical Position Statement

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The number of patients with community-acquired pneumonia (CAP) who are being treated at home is increasing for a variety of reasons. These reasons include the increased availability and cost considerations of oral antibiotics that have been shown to be effective, as well as the consideration of patient and family preferences. However, there is still considerable variability in strategies for the management of patients with CAP. This American College of Chest Physicians position statement, which was cosponsored by the American Academy of Home Care Physicians, provides recommendations on the various aspects of home care for patients with this condition. Included are recommendations for evaluation and diagnosis in the home environment and the determination of the site of care, and an outline of an in-home management plan. The position statement also provides recommendations for issues related to patient and caregiver commitment to the plan, and for monitoring and follow-up. Recommendations are directed toward immunocompetent adult patients with CAP who are at home or in other unskilled residential facilities. These patients can include previously healthy individuals or chronically ill individuals who choose not to go to the hospital, or hospitalized patients who are completing a hospital discharge plan. The recommendations in this statement take into consideration the best course of action for the patient, as determined by incorporating the most recent evidence with clinician judgment and patient preferences. These recommendations also consider the available resources. Therefore, these recommendations may not apply to every patient, and interventions may need to be structured based on the individual. In addition to providing recommendations for the home care management of patients with CAP, we hope that this clinical policy statement will alert readers to the need for more scientific evidence related to the clinical and psychosocial issues associated with managing this condition.

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Key words: community-acquired pneumonia; home care; home treatment; pneumonia

Abbreviations: AAHCP = American Academy of Home Care Physicians; ACCP = American College of Chest Physicians; ATS = American Thoracic Society; BTS = British Thoracic Society; CAP = community-acquired pneumonia; HME = home medical equipment; IDSA = Infectious Diseases Society of America; PCP = primary care provider; PORT = Pneumonia Patient Outcomes Research Team

The American College of Chest Physicians (ACCP) finds it imperative to include individuals who are experts in their respective fields on policy development committees. The recommendations and publications that result from the meetings of these committees will have far-reaching significance that may affect multiple aspects of the practice of chest medicine throughout the world. Therefore, it is essential that the ACCP have full disclosure of outside interests from those individuals serving on policy development committees, including liaison representatives from outside organizations. Both real and potential conflicts of interest may actually affect impartial or objective decisions or may appear to.

Each chapter of this guideline was reviewed and approved by the ACCP Health and Science Policy Committee prior to submission, approval by the ACCP Board of Regents, and approval by the American Academy of Home Care Physicians (AAHCP). The guideline was then forwarded to other external organizations for endorsement.

In the ever-changing field of medicine, it is important and necessary to have access to up-to-date information. Clinical policies are developed to enhance the clinician's ability to practice quality medicine and also to provide an opportunity for the busy clinician to receive the latest evidence on a particular topic. The information provided in this statement should be used in conjunction with clinical judgment. These recommendations may not apply to every individual patient; therefore, it is important for the physician to take into consideration the role of patient preferences and the availability of local resources.

The ACCP is sensitive to concerns that nationally and/or internationally developed position statements are not always applicable in local settings. Further, recommendations are just that; recommendations not dictates. In treating patients, individual circumstances, preferences, and resources do play a role in the course of treatment at every decision level. These recommendations are intended to guide healthcare decisions and may be adapted to be applicable at various levels.

The availability of effective oral antibiotics, patient preferences, and cost considerations have resulted in an increasing number of patients with community-acquired pneumonia (CAP) being treated in their homes. This option has been driven by studies[1–5] identifying subsets of hospitalized patients with a low risk of mortality, patient preferences for outpatient care, and the possibility of reducing the costs of pneumonia care without impacting care quality and patient outcomes. These studies support in-home treatment for previously healthy individuals and chronically ill individuals who may or may not be home-bound but choose not to go into the hospital. Based on experiences among nursing home populations, there is concern that evaluation in an emergency department with admission to an acute care facility is a form of intervention that may be overused[6–11] and may not always be in the best interests of the patient.[12,13] Current guidelines for CAP focus on the decision to admit patients to the hospital and on the course of inpatient care.[14–19] Home care involves less direct professional interaction and relies heavily on nurses aids, the patient, and informal caregivers. It is important, therefore, that the goals, requirements, and responsibilities of those involved in the in-home care of patients with CAP be clearly defined.

CAP is a significant issue. The disease affects an estimated 2 to 3 million individuals in the United States each year, resulting in about 10 million physician visits, 500,000 hospitalizations, and 45,000 deaths.[14] Pneumonia is the most common cause of death from infectious disease and the sixth most common cause of death overall.[20] The direct costs of treating CAP have been estimated at about $8.5 billion dollars annually in the United States, with approximately 95% of the costs resulting from inpatient care.[1] The impact on indirect costs may be substantial. In a study of 944 outpatients with CAP, 89% of nonemployed and 96% of employed surviving patients had returned to usual activities after 30 days, but 76% still had one or more persisting pneumonia-related symptoms.[21] For inpatients, the comparable numbers were 57%, 82%, and 86%, respectively. The incidence of pneumonia appears to be highest in the oldest and youngest age groups.[22]

There is considerable variability in the manner in which CAP is managed. Differences in practice patterns among primary care providers (PCPs) appear to be related to individual practice styles. Factors that are central to these differences include the ability to evaluate the patient prior to treatment, the diagnostic capacities available in the home, the capability of the caregiver and patient to manage the illness, the ease with which the PCP can monitor the patient at home, and concerns about medical liability. Broad differences in hospital admission rates among PCPs, which appear to be based primarily on nonclinical criteria, present an opportunity for clinicians and policy makers to develop explicit guidelines to help normalize practice patterns.[23]

The general goals of home care are to provide the same level of quality, and to achieve the same level of recovery and functional status as would be possible at any other site of care. The objectives of this article are to address the requirements for successfully managing patients with CAP in the home environment. It is intended for the use of primary care and emergency physicians who are likely to make the principal diagnosis and who are responsible for the management of patients during the course of CAP. Home care agencies, medical groups, managed care

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This position statement is cosponsored by the American Academy of Home Care Physicians, and the recommendations in this document have been endorsed by the American Thoracic Society, the American Association of Respiratory Care, and the American Geriatrics Society.

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