2. The Evaluation and Treatment of Adult Respiratory Tract Infections

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Although the medical history cannot be utilized as the only factor in the etiologic evaluation of patients with pneumonia, knowledge of the specific time of year or the geographic location in which the infection has developed may permit therapeutic decisions to be made long before microbiologic or serologic test results become available and often before x-ray studies have been performed.

In the United States, nonbacterial pneumonia is observed more commonly than bacterial pneumonia, Streptococcus pneumoniae is the most frequent cause of bacterial pneumonia, and M. Pneumoniae is the single most common etiologic agent in pulmonary infections. Although traditionally considered to be an organism that primarily infects young children, Haemophilus influenzae has been observed to be increasingly responsible for serious respiratory infections in adults. Knowledge of such "bacteriologic statistics" is essential in the evaluation of patients with lower respiratory tract infection and in the selection of initial antimicrobial therapy. A history of exposure to animals also may occasionally be important.

The medical history infrequently supplies the practitioner with information so definitive that an etiologic diagnosis can firmly be established. Physical examination also may be a useful element in the evaluation of the patient with pneumonia.

Chest x-rays must be performed in all patients with pneumonia.

However, their utility in the etiologic evaluation of the patient with pulmonary infection is limited.

A detailed medical history, a thorough physical examination, and a careful evaluation on the chest x-ray yield useful, but rarely definitive, information in the assessment of the patient with etiologically undefined pneumonia, and more specific data must be sought prior to the availability of microbiologic and serologic test results.

Examination of the sputum provides the most reliable initial etiologic assessment of patients with pneumonia. When this is combined with an elementary knowledge of the most common patterns of antimicrobial susceptibility of frequently isolated pathogens, safe and effective therapy can be administered even before etiologic definition has been established.