ATS/IDSA release clinical practice guideline on diagnosing, treating CAP

ACP Hospitalist Weekly Staff

The American Thoracic Society (ATS) and Infectious Diseases Society of America (IDSA) have updated their 2007 guideline on diagnosing and treating adults with community-acquired pneumonia (CAP).

The new guideline, which uses the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) format rather than the narrative style of previous documents, addresses pneumonia that is acquired outside of the hospital setting by adults who do not have an immunocompromising condition. It was published in the Oct. 1 *American Journal of Respiratory and Critical Care Medicine*.

The guideline recommends initially treating empirically for possible bacterial infection or co-infection, since there is no current diagnostic test accurate enough or fast enough to determine that CAP is due solely to a virus at the time of presentation. Separate recommendations apply when the risk of methicillin-resistant *Staphylococcus aureus* (MRSA) or *Pseudomonas aeruginosa* is elevated.

The new guideline reaffirms many recommendations from the 2007 ATS/IDSA guideline. However, new evidence and a new process have led to significant changes, which are summarized as follows:

- The 2007 guideline primarily recommended sputum culture and blood culture in patients with severe disease, whereas the 2019 guideline recommends sputum culture and blood culture in patients with severe disease as well as in all inpatients empirically treated for MRSA or *Pseudomonas aeruginosa*.
- The previous guideline did not cover use of the biomarker procalcitonin. The 2019 guideline recommends that empiric antibiotic therapy be initiated in adults with clinically suspected and radiographically confirmed CAP, regardless of initial serum procalcitonin level (strong recommendation, moderate quality of evidence).
- The previous guideline did not cover use of corticosteroids. The 2019 guideline recommends not using corticosteroids in adults with nonsevere CAP (strong recommendation, high quality of evidence). It also suggests not routinely using corticosteroids in adults with severe CAP (conditional recommendation, moderate quality of evidence), although they may be considered in patients with refractory septic shock.
- While the 2007 guideline accepted the use of the health care-associated pneumonia category, as introduced in the 2005 ATS/IDSA hospital-acquired and ventilator-associated pneumonia guidelines, the new guideline recommends abandoning this categorization. It places an emphasis on using local epidemiology and validated risk factors to determine need for MRSA or *P. aeruginosa* coverage and an increased emphasis on de-escalation of treatment if cultures are negative.
- Regarding standard empiric therapy for severe CAP, the 2007 guideline gave equal weighting to beta-lactam/macrolide and beta-lactam/fluoroquinolone

combinations. Now, while both combinations are still accepted, there is stronger evidence in favor of the beta-lactam/macrolide combination.
- The 2007 guideline did not address routine use of follow-up chest imaging, which the current guideline recommends against obtaining. However, some patients may be eligible for lung cancer screening, which should be performed as clinically indicated.

The authors concluded, "Despite substantial concern over the rise of antibiotic-resistant pathogens, most patients with CAP can be adequately treated with regimens that have been used for multiple decades. ... [However] clinicians need to be aware of the spectrum of local pathogens, especially if they care for patients at a center where infection with antibiotic-resistant pathogens such as MRSA and *P. aeruginosa* are more common."