Clinical Infectious Diseases

VIEWPOINTS

Infectious Diseases Society of America (IDSA) Position Statement: Why IDSA Did Not Endorse the Community-Acquired Pneumonia Guidelines 2025 Update

Michael Klompas,[1,2] Majdi Al-Hasan,[3,4] Mayar Al Mohajer,[5,6] Robert Colgrove,[7,8] Shira Doron,[9] Thomas File,[10,11] Natasha N. Pettit,[12] Michael Pulia,[13] and Sharon Weissman[3,4]

[1]Harvard Pilgrim Health Care Institute and Harvard Medical School, Boston, Massachusetts, USA; [2]Brigham and Women's Hospital, Boston, Massachusetts, USA; [3]University of South Carolina School of Medicine, Columbia, South Carolina, USA; [4]Prisma Health Midlands, Columbia, South Carolina, USA; [5]Baylor College of Medicine, Houston, Texas, USA; [6]Baylor St. Luke's Medical Center, Houston, Texas, USA; [7]Mount Auburn Hospital, Cambridge, Massachusetts, USA; [8]Harvard Medical School, Boston, Massachusetts, USA; [9]Tufts Medical Center and Tufts University School of Medicine, Boston, Massachusetts, USA; [10]Summa Health, Akron, Ohio, USA; [11]Northeast Ohio Medical University, Rootstown, Ohio, USA; [12]University of Chicago Medicine, Chicago, Illinois, USA; and [13]BerbeeWalsh Department of Emergency Medicine, University of Wisconson-Madison, School of Medicine and Public Health, Madison, Wisconsin, USA

The American Thoracic Society recently released updated community-acquired pneumonia (CAP) guidelines. The Infectious Diseases Society of America (IDSA) agreed with 8 of the 10 recommendations in the guidelines but declined to endorse the guidelines because they include recommendations for use of antibiotics in outpatients with comorbidities and inpatients with nonsevere CAP who test positive for respiratory viruses. It is noted in the guidelines that bacterial coinfections are common and that delaying antibiotics may be harmful. IDSA notes, however, that nondiscriminatory use of antibiotics for patients with CAP and positive viral assays confers more risks than benefits. Most patients do not have bacterial coinfections, and briefly withholding antibiotics for patients with nonsevere illness to clarify the diagnosis is safe. In this era of precision medicine, IDSA instead recommends individualized, dynamic decision-making that takes into account each patient´s evolving trajectory, severity of illness and balance of clinical features for and against coinfection.

Keywords. community-acquired pneumonia; guidelines; viral assays; antibiotic stewardship.

The Infectious Diseases Society of America (IDSA) has been proud to collaborate with the American Thoracic Society (ATS) on the development and publication of guidelines for the diagnosis and management of community-acquired pneumonia (CAP) since 2007. IDSA and ATS began collaborating on the 2025 updates to the CAP guidelines. Unfortunately, the 2 societies were unable to come to a consensus on how best to manage patients with suspected pneumonia with positive viral assays. This ultimately led IDSA to withhold endorsement from the updated guidelines [1]. In this Viewpoint article, we summarize IDSA's reasons for not endorsing the updated CAP guidelines.

Ten questions in the following 4 domains are addressed in the updated guidelines: ultrasound versus chest radiographs to diagnose CAP, empiric antibacterial therapy for patients who test positive for respiratory viruses, duration of antibiotic treatment for CAP, and use of systemic corticosteroids for patients with CAP. IDSA agreed with 8 of the 10 recommendations, including all recommendations that pertained to ultrasound, duration of treatment, and corticosteroids, but disagreed with 2 of the 4 recommendations related to antibiotic treatment for patients with positive viral assays. Unfortunately, the guideline process did not allow for point-by-point endorsements. Hence, IDSA had no choice but to withhold its endorsement in toto.

The updated CAP guidelines include 4 conditional recommendations regarding the use of antibiotics for patients with a clinical and radiological diagnosis of CAP who test positive for a respiratory virus (eg, influenza, respiratory syncytial virus, severe acute respiratory syndrome coronavirus 2). Within the guidelines, it is suggested that empiric antibiotics should not be used in adult outpatients who do not have comorbidities. IDSA supports this recommendation. It is also suggested that empiric antibiotics should be used for patients hospitalized with severe CAP. IDSA also supports this recommendation. However, the guidelines further include recommendations for use of empiric antibiotics in adult outpatients with comorbidities and adult inpatients with nonsevere CAP [1]. IDSA does not support these 2 recommendations because they are likely to lead to treating many patients who have viral infections with antibacterials that are unlikely to help but could increase both individual and population-level risks for harm.

Received 13 August 2025; accepted 12 October 2025; published online 4 December 2025

Correspondence: S. Weissman, University of South Carolina School of Medicine, 2 Medical Park, Columbia, SC 29203 (sbw@alum.mit.edu).

Clinical Infectious Diseases®

https://doi.org/10.1093/cid/ciaf625

USE OF EMPIRIC ANTIBIOTICS FOR MOST PATIENTS WITH POSITIVE VIRAL ASSAYS IS NOT EVIDENCE-BASED

In the guidelines, it is noted that there are no randomized trials or high-quality observational data to guide the decision on whether to give antibiotics to patients with CAP and positive viral assays. In particular, it is stated in the guidelines that there is no evidence that it is safe to withhold antibiotics for patients with viral pneumonia. IDSA notes, however, that the converse also holds true: there are no data that show that giving antibacterials to CAP patients with positive viral assays is helpful [2, 3]. However, whereas the potential benefits of antibacterial therapy for CAP patients with viruses have not been established, the risks of antibiotic-related complications in hospitalized patients in general have been well established. These include *Clostridioides difficile* colitis, organ damage, arrhythmias, drug–drug interactions, allergic reactions, microbiome disruption, and selection for antimicrobial resistance. These, in turn, can disrupt immune function, predispose patients to sepsis, and interfere with the metabolism of some therapies. Some of these adverse effects are rare on a per-person basis. However, given the very large number of patients who are diagnosed with possible pneumonia, widespread overtreatment is prone to lead to many instances of harm. Indeed, antibiotics are responsible for the majority of medication-related adverse events that lead to emergency department visits [4]. Simply put, the default assumption in the guidelines that treatment with antibiotics is the "safer" pathway is not warranted.

The authors of the guidelines based their recommendations in favor of antibiotics for outpatients with comorbidities and inpatients with nonsevere CAP on the concern that bacterial coinfection is common, morbid, and associated with worse outcomes if antibiotic treatment is delayed. The panel cited studies that estimated that between 3% and 39% of hospitalized patients who test positive for viruses have bacterial coinfection [1]. This wide variability in estimated bacterial coinfection rates underscores the imprecision and uncertainty that underlie the estimates. In addition, literature estimates of the frequency of bacterial coinfection may be inflated because bacterial testing for patients with possible pneumonia is not systematic. Sputum cultures are more likely to be collected and more likely to be positive in patients with purulent sputum and patients with severe illness, particularly those who require endotracheal intubation. Moreover, growth of bacteria in respiratory cultures does not necessarily indicate infection. Bacterial colonization of the respiratory tract is common, particularly in patients with chronic lung diseases [5, 6].

Similarly, the concern noted in the guidelines that any delay in starting antibiotics in the subset of patients who are coinfected will lead to worse outcomes is not supported. The association between time to starting antibiotics and mortality is strongly moderated by severity of illness. Delays are associated with increased mortality in patients with septic shock, less so in patients with sepsis, and rarely in patients without sepsis [7, 8].

The authors also supported the importance of early antibiotics for patients who test positive for respiratory viruses, in part, based on autopsy data that suggest that there were high rates of bacterial coinfection in patients who died during the 1918 influenza pandemic. However, these data are biased since they are limited by definition to patients who died. They are of unclear applicability to contemporary practice and to the broader population of patients with influenza with less severe illness, who are not coinfected, and less at risk for poor outcomes if antibacterials are withheld or delayed. All told, IDSA agreed with recommendations to give empiric antibiotics to patients with severe CAP (where delay could lead to harm) but not to patients with nonsevere CAP where it is less urgent to treat immediately and it is feasible to allow some time to clarify the diagnosis.

IMPLEMENTING THE RECOMMENDATIONS WILL SIGNIFICANTLY INCREASE ANTIBIOTIC OVERUSE

The guidelines were developed using the GRADE (Grading of Recommendations Assessment, Development, and Evaluation) framework, which classifies recommendations as either "strong" or "conditional." The recommendations in the guidelines were conditional, meaning that the recommendations need not be followed for all patients and that shared decision-making is necessary for proper implementation. Nonetheless, a conditional recommendation implies that the suggested actions are appropriate for the majority of patients. IDSA strongly agrees with shared individualized decision-making when it comes to deciding whether or not to prescribe antibiotics for patients with CAP. However, while the guideline's explanatory text endorses this nuance, the headline recommendations do not.

The guidelines adhered to the GRADE framework advice that guideline developers constrain their recommendations to mirror the PICO (Patient/Problem/Population, Intervention, Comparison, and Outcome) questions. Unfortunately, the PICO questions and Evidence-to-Decision framework that were used to develop the recommendations did not specifically account for the risks of excessive antibiotic use to public health. IDSA is concerned that recommending antibiotics for the majority of patients with positive viral assays will fuel the ongoing serious problem of antibiotic overuse with its attendant risks of adverse effects and antibiotic-resistant organisms at both the individual and population levels. Indeed, excessive use of antibiotics during the peak of the coronavirus disease 2019 pandemic was associated with an increase in multidrug-resistant pathogens and increased rates of hospital-acquired infections [9–11].

Importantly, the scope of antibiotic overuse for viral pneumonia is potentially enormous given the frequency of

pneumonia, the high fraction of pneumonias attributable to viruses, and the high rate of pneumonia overdiagnosis [12, 13]. There is also concern that national healthcare organizations may develop quality metrics based on the updated CAP guidelines. This may further promote antibiotic overuse in patients with possible pneumonia and positive viral assays for the sake of meeting the metrics, not necessarily providing the best care for the patients.

MINDFUL IMPLEMENTATION OF THE 2025 GUIDELINES UPDATE

Prior CAP guidelines primarily included recommendations for use of empiric antibiotics for all pneumonias because there were no widely available, rapid, easily performed, accurate, and cost-effective methods to test patients for viral and bacterial pathogens at the point of service. However, we live in an era of increasing precision and personalized medicine. There have been monumental advancements in clinical, radiological, laboratory, and microbiological techniques over the past decades. The rapid diagnostic tests, including multiplex polymerase chain reaction, urinary antigens for bacteria, and surrogate serum markers for bacterial infections, are valuable diagnostic tools that can provide results quickly, allowing clinicians to identify the pathogen driving the patient's illness in a clinically meaningful timeframe. These can now be used to provide directed therapy for patients with bacterial pathogens and help spare patients with viral pneumonias from unnecessary antibiotic therapy. Although these tests are not perfectly sensitive nor specific, they provide substantially more insight than clinicians have previously had and are arguably actionable for patients with nonsevere disease where there is some margin for flexibility.

We acknowledge that empiric antibiotics are warranted for some outpatients with comorbidities and some inpatients with nonsevere CAP with positive respiratory viral assays and suggest prescribing empiric antibiotics when individual patient factors indicate concern for bacterial–viral coinfection. Table 3 of the CAP guidelines includes a thoughtful summary of factors that strengthen versus weaken the recommendations in favor of antibiotics, including which virus was identified, duration of symptoms, severity of illness, biphasic illness, inflammatory markers, radiographic findings, rapid diagnostic test results, and illness trajectory. None of these factors alone is diagnostic. However, we believe that clinicians have the capacity to weigh and balance these considerations when determining whether empiric antibiotics are warranted or not.

COMMITTING TO THE FUTURE

IDSA is proud of its history collaborating with ATS on guidelines for CAP and other pulmonary infections and deeply regrets that the organizations were not able to reach consensus on the 2025 update. IDSA is committed to collaborating with ATS on future iterations of these guidelines, while continuing to improve the methodological and dialogical tools that are used to develop the guidelines, ensuring that they appropriately balance patient-centered care and public health. We continue to believe that clinicians, patients, and policy makers are best served when professional societies are able to project a common message that represents the consensus of both societies.

Notes

Financial support. None of the authors received payment for work on this manuscript.

Potential conflicts of interest. T. F. discloses that he has been a consultant or member of a Scientific Advisory Board for Merck, HealthTrackRx, ThermoFisher, MicroGenDx, and Shionogi; has participated in clinical trials for Pfizer and Paratek; and has served on a DSMB for a clinical trial conducted by Eagle Pharmaceuticals. The authors: No reported conflicts of interest. All authors have submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest.

References

1. Jones BE, Ramirez JA, Oren E, et al. Diagnosis and management of community-acquired pneumonia. Am J Respir Crit Care Med **2025**; doi:10.1164/rccm.202507-1692ST.
2. Pulia MS, Griffin M, Schwei R, et al. Antibiotic treatment in patients hospitalized for nonsevere COVID-19. JAMA Netw Open **2025**; 8:e2511499.
3. Papiol E, Berrueta J, Ruiz-Rodriguez JC, et al. Does empirical antibiotic use improve outcomes in ventilated patients with pandemic viral infection? A multicentre retrospective study. Antibiotics (Basel) **2025**; 14:594.
4. Shehab N, Patel PR, Srinivasan A, Budnitz DS. Emergency department visits for antibiotic-associated adverse events. Clin Infect Dis **2008**; 47:735–43.
5. Prendki V, Scheffler M, Huttner B, et al. Low-dose computed tomography for the diagnosis of pneumonia in elderly patients: a prospective, interventional cohort study. Eur Respir J **2018**; 51:1702375.
6. Falsey AR, Becker KL, Swinburne AJ, et al. Bacterial complications of respiratory tract viral illness: a comprehensive evaluation. J Infect Dis **2013**; 208:432–41.
7. Pak TR, Young J, McKenna CS, et al. Risk of misleading conclusions in observational studies of time-to-antibiotics and mortality in suspected sepsis. Clin Infect Dis **2023**; 77:1534–43.
8. Bordon J, Aliberti S, Duvvuri P, et al. Early administration of the first antimicrobials should be considered a marker of optimal care of patients with community-acquired pneumonia rather than a predictor of outcomes. Int J Infect Dis **2013**; 17:e293–8.
9. Langford BJ, So M, Simeonova M, et al. Antimicrobial resistance in patients with COVID-19: a systematic review and meta-analysis. Lancet Microbe **2023**; 4:e179–91.
10. Yek C, Mancera AG, Diao G, et al. Impact of the COVID-19 pandemic on antibiotic resistant infection burden in U.S. hospitals: retrospective cohort study of trends and risk factors. Ann Intern Med **2025**; 178:796–807.
11. Sands KE, Blanchard EJ, Fraker S, Korwek K, Cuffe M. Health care-associated infections among hospitalized patients with COVID-19, March 2020–March 2022. JAMA Netw Open **2023**; 6:e238059.
12. Jain S, Self WH, Wunderink RG, et al. Community-acquired pneumonia requiring hospitalization among U.S. adults. N Engl J Med **2015**; 373:415–27.
13. Jones BE, Chapman AB, Ying J, et al. Diagnostic discordance, uncertainty, and treatment ambiguity in community-acquired pneumonia: a national cohort study of 115 U.S. Veterans Affairs hospitals. Ann Intern Med **2024**; 177:1179–89.