

**Describe your assigned client's situation. Why are they presenting to the clinic? What medications are they currently taking?**

Yohannan Dawoud is a 64-year-old male who is presenting to the clinic with a two-day history of productive cough with yellow mucus, fever, shortness of breath, and fatigue. Patient endorses being diagnosed with COVID-19 one week ago, and his cough and respiratory symptoms have worsened over the past two days. He has past medical history of type 2 diabetes, cellulitis, and hypertension. This patient is currently taking metformin 500mg mouth twice daily and lisinopril 30mg daily. Notably, he has allergies to amoxicillin and cephalexin. He reports quitting smoking 20 years ago and consumes alcohol twice a year.

**Assess the applicable clinical practice guideline (CPG) for your assigned client. What treatment is recommended by the CPG for your client's situation?**

According to the clinical practice guideline (Metlay et al., 2019), patients who are diagnosed with community-acquired pneumonia with existing comorbidities should be treated with a combination therapy of amoxicillin-clavulanate or cephalosporin plus a macrolide or doxycycline or monotherapy with a respiratory fluoroquinolone, such as levofloxacin or moxifloxacin. Given this patient's allergy to amoxicillin and cephalexin, monotherapy with a respiratory fluoroquinolone is recommended. This treatment is further supported by the guideline for patients with comorbidities, and it is effective in treating typical and atypical pathogens responsible for community acquired pneumonia. This pneumonia can be treated in an outpatient setting which is able to lead to low resistance rates in common bacteria of pneumonia. In this case, levofloxacin is an appropriate choice.

**Discuss your personal professional assessment of the client's situation provided in the scenario. What pharmacological treatment is necessary and why?**

This patient is exhibiting signs of secondary bacterial pneumonia following a recent COVID-19 infection. According to Kato (2024), pneumonia is associated with increased morbidity and mortality rate in older adults. Mr. Dawoud, at age 64 with a new-onset fever, purulent sputum, and bilateral lower lobe consolidation on chest X-ray, meeting the criteria for bacterial pneumonia.

Due to his allergy to amoxicillin and cephalexin, the recommended prescription for this patient is for the use of levofloxacin 750 mg by mouth daily for 5 days. This medication is useful due to its broad-spectrum activity since we know it is a bacterial pneumonia but not sure of the causative bacteria. This treatment is necessary to ensure treatment of pneumonia is done due to the progression of the disease that Mr. Dawoud has been experiencing the last few days.

**Reflect on additional questions you have about your assigned client that may influence treatment. What else do you need to know? What follow-up assessments, labs, or conversations are required to ensure optimal health outcomes?**

Additional considerations include confirming the nature of the client's allergies to amoxicillin and cephalexin—specifically whether the reaction was a rash or anaphylaxis—as this