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Practice Changing Updates

June –July 2025

کتابخانه بیمارستان کوثر

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Practice Changing Updates در پایگاه **UpToDate** توصیه‌های جدید و یا به‌روزرسانی‌هایی را که ممکن است عملکرد بالینی اعم از روش و نوع درمان رایج را تغییر دهد، برجسته می‌کند.

PULMONARY AND CRITICAL CARE MEDICINE (June 2025)

- **Methotrexate as initial therapy for symptomatic, moderate-to-severe pulmonary sarcoidosis**

- For most symptomatic patients with pulmonary sarcoidosis who have severe lung involvement, worsening radiographic opacities, or increasing pulmonary function impairment, we suggest initial treatment with [methotrexate](#) rather than glucocorticoid therapy, observation alone, or other alternative therapies ([Grade 2C](#)).

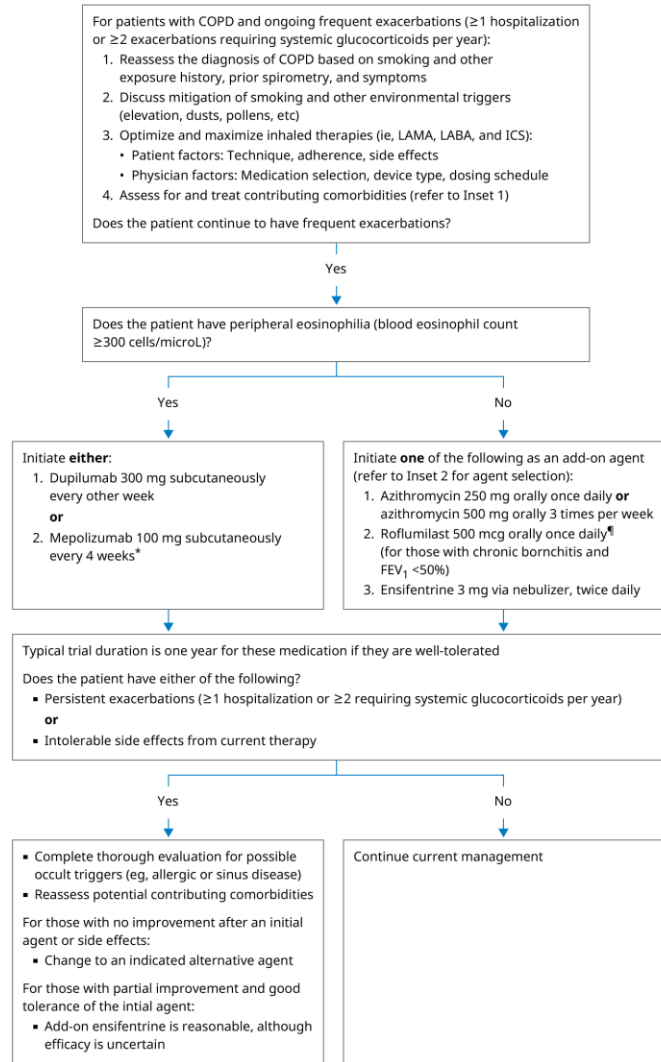
Pulmonary sarcoidosis is usually treated initially with oral glucocorticoids, which have numerous side effects. In a new open-label trial of 138 treatment-naïve patients with pulmonary sarcoidosis and moderate-to-severe symptoms, impaired lung function, or disease progression over the last 12 months, patients randomly assigned to weekly oral [methotrexate](#) monotherapy for 24 weeks had similar lung function improvement compared with patients assigned to [prednisone](#) (6.2 versus 5.7 percentage point improvement in predicted forced vital capacity) [3]. Methotrexate had a slower onset of action but was associated with less weight gain (1.1 versus 5.0 kg) and similar patient satisfaction by the end of the trial. Based in part on this evidence, we now suggest methotrexate as initial therapy for most patients with moderate-to-severe pulmonary sarcoidosis requiring treatment; concurrent oral glucocorticoids are appropriate for those with rapidly progressing disease. (See "[Treatment of pulmonary sarcoidosis: Initial approach](#)", section on 'Efficacy of methotrexate'.)

PULMONARY AND CRITICAL CARE MEDICINE (June 2025)

• Add-on therapy for refractory COPD in patients with peripheral eosinophilia

- For patients with COPD and peripheral eosinophilia (≥ 300 cells/microL) who have recurrent exacerbations despite triple inhaled therapy, we suggest the addition of [dupilumab](#) or [mepolizumab](#) rather than other therapies ([Grade 2C](#)).

The use of biologics targeting type 2 inflammation in chronic obstructive pulmonary disease (COPD) has demonstrated promise, with approval of [dupilumab](#) in 2024 and new approval of [mepolizumab](#) for patients with eosinophilia and exacerbations despite inhaled therapies. Mepolizumab approval followed a trial of over 800 patients with COPD, peripheral hypereosinophilia (≥ 300 cells/microL), and exacerbations despite triple inhaled therapy (long-acting muscarinic antagonist, long-acting beta agonist, and inhaled corticosteroid). Those randomized to treatment with the anti-interleukin 5 monoclonal antibody mepolizumab (100 mg subcutaneously monthly) had a reduction in moderate or severe exacerbations compared with placebo (0.80 versus 1.01 events per year), but no improvements in lung function or respiratory symptoms [2]. Similar patients treated with dupilumab have shown a somewhat larger reduction in exacerbation rates and modest improvements in lung function and symptoms. Absent comparative trials, we now suggest either dupilumab or mepolizumab for patients with COPD and peripheral eosinophilia who have persistent exacerbations despite optimized inhaled therapy ([algorithm 1](#)). (See "[Management of refractory chronic obstructive pulmonary disease](#)", section on 'Mepolizumab'.)



Inset 1: Assessment of comorbidities in refractory COPD with frequent exacerbations		
Condition	Work-up	Intervention
Other pulmonary process (eg, asthma, bronchiectasis, lung cancer)	PFTs, HRCT of the chest; blood eosinophils; FeNO	Treatment of additional process
Environmental allergies	Skin testing, RAST panel	Antihistamines; allergen desensitization therapy
Gastroesophageal reflux	Barium swallow, impedance pH probe	Proton pump inhibitors, surgical intervention for hiatal hernia in severe cases
Chronic rhinosinusitis	Face/sinus CT, endoscopy	Decongestants; sinus rinses; ENT referral; surgery in some cases
Dysphagia/aspiration	Fluoroscopic and/or endoscopic evaluation; speech-language pathology	Swallowing exercises; change in diet consistency
Immune deficiency	HIV, immunoglobulins	Treatment of underlying disorder
Heart failure or angina	Cardiac echo; cardiac stress test	Referral to cardiology
Pulmonary hypertension; PASP >40 mmHg	Echocardiography with PASP	Referral to PH center for further work-up and treatment
Sleep-disordered breathing	Sleep history screening; Epworth or STOP-Bang ^Δ	Polysomnography; possible nocturnal CPAP

Inset 2: Choosing between azithromycin, roflumilast, and dupilumab for frequent exacerbations in patients with refractory COPD			
Intervention	Factors that favor	Factors against	Important side effects
Dupilumab	Peripheral eosinophilia (>300 cells/microL) required ; increased bronchodilator reversibility; concomitant atopic dermatitis or nasal polyposis; history of asthma	Needle phobia, logistical barriers to biweekly injections	Injection site reactions, hypereosinophilia (typically transient), which may occasionally lead to rash, arthralgias, and fevers
Mepolizumab	Peripheral eosinophilia (>300 cells/microL) required ; increased bronchodilator reversibility; history of asthma	Needle phobia, logistical barriers to monthly injections	Injection site reactions, rare hypersensitivity reactions and <i>Herpes zoster</i> infections
Chronic azithromycin	Established recurrent bacterial infection; bronchiectasis	Active smoking; cardiac dysrhythmia; multiple QT-prolonging medications; poor baseline hearing; concern for atypical mycobacterial infection	Prolonged QTc; hearing loss
Roflumilast	Chronic bronchitis [◊] and FEV ₁ <50% predicted (required); inability to tolerate one class of inhaled bronchodilator (either LABA or LAMA)	Comorbid gastrointestinal conditions (eg, IBS, IBD, dyspepsia) Comorbid depression or insomnia	Diarrhea, nausea/vomiting, weight loss, dyspepsia, insomnia, adverse psychiatric reactions
Ensifentrine	Multiple comorbidities, polypharmacy; inability to tolerate an alternative class of inhaled bronchodilator (either LABA or LAMA)	Dislike of or poor adherence to nebulized medications; lack of availability	None

COPD: chronic obstructive pulmonary disease; CPAP: continuous positive airway pressure; CT: computed tomography; echo: echocardiogram; ENT: ear, nose, and throat (ie, otolaryngology); FeNO: fraction of exhaled nitric oxide; FEV₁: forced expiratory volume in one second; HIV: human immunodeficiency virus; HRCT: high-resolution computed tomography; IBD: inflammatory bowel disease; IBS: irritable bowel syndrome; ICS: inhaled glucocorticoid (aka inhaled corticosteroid); LABA: long-acting beta-agonist; LAMA: long-acting muscarinic antagonist; PASP: pulmonary artery systolic pressure; PFTs: pulmonary function tests; PH: pulmonary hypertension; QTc: corrected QT interval; RAST: radioallergen sorbent test.

* Patients should be monitored for injection site and hypersensitivity reactions. Cost, needle phobia, and logistical difficulties may limit use of these agents. Patients who do not benefit after extended monitoring (at least 6 to 12 months) should not continue biologic therapy. For patients receiving dupilumab: although symptomatic hypereosinophilia is rare, patients should be monitored for these symptoms (rash, fevers, arthralgia) with a white blood cell differential if symptoms warrant. For patients with planned use of mepolizumab: although herpes zoster infection is uncommon, we suggest vaccination four weeks prior to initiation.

‡ Initiating treatment with roflumilast 250 mcg once daily for four weeks and then increasing to 500 mcg once daily may reduce the rate of treatment discontinuation due to gastrointestinal side effects. However, 250 mcg once daily is not a therapeutic dose and should not be used long-term.

Δ The Epworth sleepiness scale and STOP-Bang questionnaire are scores to assess for likelihood of sleep-disordered breathing.

◊ Chronic bronchitis is defined by productive cough for more than three months in the past two consecutive years.

INFECTIOUS DISEASES (July 2025)

- Updated guidelines for prophylaxis after a nonoccupational exposure to HIV

- For most people who initiate nonoccupational post-exposure prophylaxis to prevent HIV, we suggest [bictegravir-emtricitabine-tenofovir alafenamide](#) (**Grade 2C**).

People who present within 72 hours of a possible nonoccupational exposure to human immunodeficiency virus (HIV) should be evaluated for post-exposure prophylaxis with antiretroviral therapy (nPEP). If indicated, updated guidelines from the United States Centers for Disease Control and Prevention suggest [bictegravir-emtricitabine-tenofovir alafenamide](#) or [dolutegravir](#) plus either [tenofovir alafenamide](#) or [tenofovir disoproxil fumarate](#) [1]. Previously, tenofovir alafenamide had been avoided for nPEP, particularly for exposure through vaginal sex, but emerging indirect data from pre-exposure prophylaxis trials support its use. For most people, we suggest bictegravir-emtricitabine-tenofovir alafenamide since it is administered as a single pill once daily. There may be additional considerations for regimen selection in those with reduced kidney function or exposure to drug-resistant HIV. (See "[Management of nonoccupational exposures to HIV and hepatitis B and C in adults](#)", section on 'Preferred regimens'.)