



Better Pharmacist Knowledge

Jordan Drug Information and Toxicology Center 2023

2023

Dupilumab for refractory chronic obstructive pulmonary disease (June 2023)

Biologic therapies have been proposed for patients with chronic obstructive pulmonary disease (COPD) and evidence of eosinophilic inflammation who continue to have frequent exacerbations despite optimized standard therapy. In a phase 3 blinded trial of over 930 patients with COPD, chronic bronchitis, and peripheral eosinophilia, with recurrent moderate to severe exacerbations despite optimal inhaled therapy, individuals assigned to receive dupilumab subcutaneously every two weeks demonstrated modest reductions in exacerbations and improvements in pulmonary function at one year compared with those assigned to placebo. These findings **suggest that a trial of dupilumab (off-label) is reasonable for patients with COPD and eosinophilia who have frequent exacerbations despite optimized therapy for COPD including inhaled therapy and trials of azithromycin and/or roflumilast.** [1]

Iron deficiency and anemia due to daily low-dose aspirin (July 2023)

Aspirin can increase bleeding risk, but data are lacking on anemia and iron deficiency in individuals without clinically obvious bleeding. A new analysis of a randomized trial in **older adults assigned to daily low-dose aspirin or placebo has documented a small but statistically significant increase in the rate of anemia** (51 per 1000 person-years in the aspirin group versus 43 per 1000 person-years with placebo) and **iron deficiency** (13 percent with aspirin versus 10 percent with placebo). While the decision to perform surveillance for anemia or iron deficiency in individuals taking aspirin is individualized, these data provide a rationale for surveillance in those who choose it. [2]

Updated Beers criteria for anticoagulants (July 2023)

The Beers criteria from the American Geriatric Society are used to determine appropriate drug prescribing in older adults. A 2023 update addressed anticoagulants and the relatively lower bleeding risk with direct oral anticoagulants (DOACs) over warfarin, especially in older individuals.

The **update recommends that patients ≥65 years of**

age not initiate warfarin for venous thromboembolism (VTE) or nonvalvular atrial fibrillation unless there are substantial barriers or contraindications to using a DOAC. Among DOACs, **apixaban and edoxaban** are considered safest. Individuals who have been using warfarin long term with good international normalized ratio (INR) control may reasonably continue warfarin. [3]

Updated Beers criteria for drug prescribing in older adults (July 2023)

The Beers criteria, used to assess inappropriate drug prescribing for older adults, have been updated.

Changes in the 2023 criteria include **avoidance** of:

- 1) Rivaroxaban for long-term treatment of nonvalvular atrial fibrillation or venous thromboembolism, as well as avoidance of warfarin as initial therapy for these conditions unless alternatives are contraindicated;
- 2) Sulfonylureas as first- or second-line monotherapy or add on-therapy; and
- 3) Initiation of oral or transdermal estrogen in older women.
- 4) The use of aspirin for primary prevention of cardiovascular disease is also discouraged, and deprescribing of aspirin in older patients already taking it for primary prevention is recommended.[4]

Biosimilars for rheumatoid arthritis (June 2023)

Most biosimilars used for rheumatologic diseases have received regulatory approval based on studies of diseases other than rheumatoid arthritis. A recent meta-analysis described the results of 25 clinical trials including over 10,000 patients with rheumatoid arthritis that compared biosimilar tumor necrosis factor (TNF)-alpha inhibitors with their reference biologic products, including infliximab, etanercept, and adalimumab. Biosimilars were equivalent to reference biologics in terms of disease activity (as measured by the American College of Rheumatology 20 response) and patient function (as measured by the Health Assessment Questionnaire Disability Index scores). **Rheumatoid arthritis patients managed with TNF inhibitors can be reassured that biosimilars are as effective as bio-originators for the management of their disease.** [1]

References:

1. Dupilumab for refractory chronic obstructive pulmonary disease (June 2023), accessed online via uptodate, cited on 28 July 2023.
2. Iron deficiency and anemia due to daily low-dose aspirin (July 2023), accessed online via uptodate, cited on 28 July 2023
3. Updated Beers criteria for anticoagulants (July 2023), accessed online via uptodate, cited on 28 July 2023
4. Updated Beers criteria for drug prescribing in older adults (July 2023), accessed online via uptodate, cited on 28 July 2023

Levothyroxine dosing in young, healthy adults with primary hypothyroidism (May 2023)

The initial dose of levothyroxine in young, healthy adults with primary hypothyroidism is typically the average full replacement dose, approximately 1.6 mcg/kg body weight per day. However, the range of required doses is broad, depending on the etiology of hypothyroidism and individual patient characteristics. In a retrospective study of post thyroidectomy patients, only 285 of 951 (30 percent) who received initial weight-based dosing of levothyroxine met their thyroid-stimulating hormone (TSH) goal at the first postoperative assessment . A levothyroxine dose calculator based on weight, height, age, sex, and calcium supplementation was able to modestly increase the number of patients meeting their TSH goals (43 percent). **Serum TSH should be reevaluated four to six weeks after initiation of levothyroxine and after any dose adjustment; most patients will need one or more dose adjustments before the optimal maintenance dose is identified.** [1]

Glucagon-like peptide 1 (GLP-1) receptor agonists may increase risk of aspiration during anesthesia (July 2023)

Patients who take glucagon-like peptide 1 (GLP-1) receptor agonists (eg, semaglutide, liraglutide) for weight loss or diabetes may be at increased risk of aspiration during anesthesia due to delayed gastric emptying. **In 2023, the American Society of Anesthesiologists suggested holding the day-of-surgery or weekly dose of GLP-1 agonists prior to elective surgery because of case reports of aspiration.** For patients who have not held their GLP-1 (ie, no drug on day of procedure/surgery for daily dosing, no drug in the week prior to procedure/surgery for weekly dosing), **gastric ultrasound can be used to assess for gastric contents or a rapid sequence induction and intubation should be considered.**[2]

Blinatumomab for treatment of infant acute lymphoblastic leukemia (May 2023)

Acute lymphoblastic leukemia (ALL) in infants usually involves rearranged *KMT2A*, carries a poor prognosis, and requires complex management that combines elements of treatment for lymphoid and myeloid leukemias. A recent study of infant ALL reported that addition of blinatumomab (a bispecific T-cell engager [BiTE] molecule targeting CD19) to chemotherapy was associated with improved survival and deep responses in infants with *KMT2A*-rearranged ALL , compared with results using the same chemotherapy regimen (Interfant-06) alone in an earlier trial . **For infants with *KMT2A*-rearranged ALL, we encourage participation in a clinical trial that incorporates blinatumomab.** [3]

Immunosuppressant therapy for rheumatoid arthritis-associated interstitial lung disease (May 2023)

The optimal treatment for rheumatoid arthritis-associated interstitial lung disease (RA-ILD) has not been determined. Generally, treatment strategies parallel treatments that have been used for the underlying type of interstitial pneumonia, based on clinical presentation and radiographic features. However, in a recent observational study of 212 patients with RA-ILD treated with immunosuppressant agents (mycophenolate, azathioprine, or rituximab), initiation of immunosuppression correlated with stabilization in lung function trajectory . Importantly, this improvement in lung function trajectory was seen regardless of the radiographic characteristics, including the presence of usual interstitial pneumonia [UIP] or probable UIP on imaging. **These data suggest that a trial of immunosuppressive therapy is reasonable in most patients with RA-ILD who have progressive disease.** [4]

References:

1. Levothyroxine dosing in young, healthy adults with primary hypothyroidism (May 2023), accessed online via uptodate, cited on 28 July 2023.
2. Glucagon-like peptide 1 (GLP-1) receptor agonists may increase risk of aspiration during anesthesia ,accessed online via uptodate, cited on 28 July 2023.
3. Blinatumomab for treatment of infant acute lymphoblastic leukemia (May 2023) , accessed online via uptodate, cited on 28 July 2023.
4. Immunosuppressant therapy for rheumatoid arthritis- (May 2023) , accessed online via uptodate, cited on 28 July 2023.

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