



# Better Pharmacist Knowledge

Jordan Drug Information and Toxicology Centre 2024

December

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## Use of anti-inflammatory reliever therapies to reduce asthma exacerbations (November 2024)

Use of inhalers containing both a **fast-acting bronchodilator and anti-inflammatory inhaled corticosteroids (ICS)** for relief of symptoms has reduced the rate of asthma exacerbations compared with short-acting beta-agonists (SABA) alone in several randomized trials of adolescents and adults. In a new network meta-analysis, compared with SABA alone, severe asthma exacerbations were significantly reduced for both ICS-formoterol (13 trials, 19,184 patients; risk difference 10.3 percent, risk ratio [RR] 0.65) and ICS-SABA (4 trials, 4852 patients; risk difference 4.7 percent, RR 0.84). Our authors **recommend these anti-inflammatory reliever therapies for those with variable asthma symptoms or frequent exacerbations and prefer them for all patients with asthma.** [1]

## Tranexamic acid does not reduce bleeding during hepatectomy (October 2024)

Tranexamic acid (TXA) is used routinely during some types of surgery to prevent excessive bleeding; however, **its effect during hepatectomy is unclear.** In a randomized trial of over 1200 patients undergoing **hepatic resection** for cancer, administration of an intravenous bolus of TXA followed by an eight-hour infusion did not reduce blood loss or the need for blood transfusion compared with placebo. Patients receiving TXA had more postoperative complications (44 versus 38 percent), with the largest difference in major complications. Venous thromboembolism was similar in the two groups, though the study may have been too small to detect a large difference. These results support our practice of **avoiding routine administration of TXA during hepatic resection.** [2]

## Effects of iron replacement in patients with heart failure with preserved ejection fraction (October 2024)

Iron replacement therapy reduces the risk of heart failure (HF) hospitalizations in patients with HF with reduced ejection fraction (HFrEF), but the benefits in patients with HF with preserved ejection fraction (HFpEF) have not been studied. In a recent trial that included 39 patients with HFpEF and iron deficiency, patients randomly assigned to treatment with ferric carboxymaltose had a greater improvement in six-minute walk distance after 24 weeks of therapy when compared with patients assigned to placebo. However, the effects of iron replacement in patients with HFpEF remain uncertain due to the small number of patients enrolled and early cessation of the trial. **Patients with HFrEF or HFpEF who have iron deficiency should receive iron and be evaluated for the cause of the deficiency regardless of the presence of anemia.** [3]

## Levonorgestrel intrauterine devices and breast cancer risk (November 2024)

Estrogen-progestin contraceptives have been associated with a small increase in risk of breast cancer, whereas the impact of progestin-only intrauterine devices (IUD) has been less clear. In an administrative database study, first-time levonorgestrel (LNG) IUD users (any dose) had a small increase in overall risk of breast cancer compared with matched nonusers of hormonal contraception (hazard ratio 1.4), in line with some prior studies. To provide context and assist patients with assessing their own risk, we inform them that the breast cancer risk conferred by LNG IUDs appears to be modestly increased and similar to that of estrogen-progestin contraceptive pills. [4]

### References:

1. Ongoing monitoring and titration of asthma therapies in adolescents and adults (November 2024), accessed online via uptodate, cited on 28 November 2024.
2. Anesthesia for the patient with liver disease (October 2024), accessed online via uptodate, cited on 28 November 2024.
3. Evaluation and management of anemia and iron deficiency in adults with heart failure (October 2024), accessed online via uptodate, cited on 28 November 2024.
4. Intrauterine contraception: Background and device types (November 2024), accessed online via uptodate, cited on 28 November 2024.

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**First-generation antihistamines and seizure risk (November 2024)**

Compared with newer, nonsedating antihistamines, older, **first-generation antihistamines** (eg, **chlorpheniramine** or **hydroxyzine**) have similar efficacy for treatment of allergic rhinitis, pruritus, or urticaria, but known central nervous effects in children include sedation, paradoxical agitation, and cognitive impairment. Despite these risks, they are widely available and used. In a new crossover study of nearly 3200 children presenting to the emergency department for seizure events, recent prescriptions of a first-generation antihistamine prior to the ED visit were associated with an increased risk of seizures compared with no prescription, especially in children ages 6 to 24 months. These findings suggest seizures as another adverse effect of first-generation antihistamines in predisposed children and support existing recommendations to avoid them in the pediatric population. [1]

**Semaglutide in patients with moderate to severe knee osteoarthritis (November 2024)**

Weight reduction through diet and exercise improves knee osteoarthritis (OA)-related pain in patients with overweight or obesity, but the effect of glucagon-like peptide-1 receptor agonists on knee OA has not been well studied. In a randomized trial in over 400 patients with obesity and moderate or severe knee OA, semaglutide achieved greater reductions in weight and pain scores than placebo, although both groups experienced improvements over the 68-week study period. These data support weight reduction in patients with overweight or obesity and knee OA, and suggest that semaglutide may complement lifestyle changes for these patients. [2]

**References:**

1. Pharmacotherapy of allergic rhinitis (November 2024), accessed online via uptodate , cited on 1st December 2024.
2. Management of knee osteoarthritis (November 2024), accessed online via uptodate , cited on 1st December 2024.
3. Brain metastases in non-small cell lung cancer (October 2024), accessed online via uptodate , 1st December 2024.
4. تعليمات صادرة عن المؤسسة العامة للغذاء و الدواء (October 2024), accessed online via www.jfda.jo.com, cited on 1st December 2024

**Tyrosine kinase inhibitor, with or without radiation, for EGFR- or ALK-positive brain metastases (October 2024)**

Studies are evaluating the role of systemic therapy with and without upfront brain radiation in the management of non-small cell lung cancer (NSCLC) brain metastases with an epidermal growth factor receptor (*EGFR*) or anaplastic lymphoma kinase (*ALK*) genetic driver alteration. In a retrospective study in 317 patients with *EGFR*- or *ALK*-driven NSCLC with brain metastases, use of a tyrosine kinase inhibitor (TKI) plus stereotactic radiosurgery was associated with improved progression-free survival compared with a TKI alone, particularly among those with brain metastases  $\geq 1$  cm, but overall survival was similar. Based on these and previous data, for those with brain metastases from NSCLC-associated *ALK* or *EGFR* mutations, we suggest targeted therapy as an initial approach rather than radiation or surgery, unless there is risk of herniation or severe mass effect. [3]

تعميم صادر عن المؤسسة العامة للغذاء والدواء  
إشارة الى التوصيات الصادرة من قبل الـ MHRA بتاريخ  
2024/10/24، بخصوص المادة الفعالة Bromocriptine، فقد  
ورد التالي:

- 1- Bromocriptine should only be prescribed to **suppress post-partum physiological lactation**, where it is medically indicated.
- 2- Bromocriptine should **not** be used for routine lactation suppression, or for relieving symptoms of postpartum breast pain and engorgement, which can be adequately treated with non-pharmacological interventions (such as firm breast support and ice application) and simple analgesic.
3. Use is **contraindicated** in patients with uncontrolled hypertension, hypertensive disorders of pregnancy, hypertension post-partum and in the puerperium, a history of coronary artery disease or other severe cardiovascular conditions.
4. Clinical guidance recommends **Cabergoline** as the preferred drug for prevention or inhibition of post-partum physiological lactation. However BP monitoring is still necessary.[4]

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