

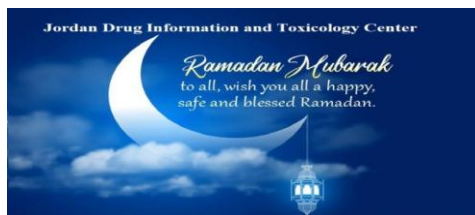


Better Pharmacist Knowledge

Jordan Drug Information and Toxicology Centre 2022

April

2022



New naming convention for therapeutic monoclonal antibodies (January 2022)

The number of therapeutic monoclonal antibodies (mAbs) continues to increase. In order to reduce sound-alikes and specify structural components of the immunoglobulins, the World Health Organization International Nonproprietary Names (INN) Programme has introduced four new suffixes to be used instead of "mab" for antibodies developed from 2022 onward. Unmodified immunoglobulins will end in "**tug**"; mAbs with an engineered constant region will end in "**bart**"; bifunctional mAbs will end in "**mig**"; and variable region fragments will end in "**ment**." [1]

Fluid resuscitation with saline or buffered crystalloid in adults (March 2022, Modified March 2022)

The choice between normal saline (NS) and a buffered salt solution (BSS) for initial fluid resuscitation in adults is debated. Recent large trials have failed to show superiority of one over the other. In a new meta-analysis of six randomized trials with low risk of bias in nearly 35,000 adults requiring fluid resuscitation, BSS led to small and statistically nonsignificant reductions in both 90-day mortality (risk ratio [RR] 0.96, 95% CI 0.91-1.01) and acute kidney injury (RR 0.96, 95% CI 0.89-1.02) compared with NS. Many of the trials had limitations including poor recruitment, low volumes of administered fluid, and unavailable data. In addition, the two types of fluids have differing advantages and disadvantages depending on blood chemistries and volume status. **We suggest that the choice between fluids be individualized and re-evaluated following initial resuscitation.** [2]

Omicron variant associated with increased COVID-19 hospitalizations in children (March 2022)

With predominance of the Omicron (B.1.1.529) SARS-CoV-2 variant in the United States, weekly COVID-19 hospitalization rates among children reached an all-time high in January 2022. Hospitalization rates were particularly high in children age 0 to 4 years, who are not eligible for vaccination.

Despite increased rates of hospitalization, the proportion of children and adolescents requiring intensive care or invasive mechanical ventilation was lower with Omicron than earlier circulating strains. [3]

Effect of regular acetaminophen use on blood pressure (March 2022)

Nonsteroidal anti-inflammatory drugs have well-established effects on blood pressure; however, there are fewer data about the effects of acetaminophen. In a crossover trial of approximately 100 patients with treated hypertension, regular acetaminophen (**at maximum dose, 1 g four times daily**) given for two weeks increased both systolic and diastolic blood pressure as compared with placebo (by 5/2 mmHg). These results, in addition to those of a prior trial, suggest that acetaminophen may have adverse effects on blood pressure in patients with hypertension. [4]

Antiseizure medication withdrawal in seizure-free patients (February 2022)

A recent practice advisory from the American Academy of Neurology (AAN) evaluated antiseizure medication (ASM) withdrawal in seizure-free adults and children. For adults who have been seizure free over a period of 24 to 60 months, the AAN concluded that it is unknown if electroencephalography (EEG) or imaging studies inform the decision to withdraw ASMs. **The evidence review did not suggest an increased risk of status epilepticus or death after ASM withdrawal.** For children, the AAN recommended consideration of ASM withdrawal for **children who are seizure free for at least 18 to 24 months in the absence of an epileptiform EEG or an electroclinical epilepsy syndrome.** [5]

References:

1. General drug therapy; New naming convention for therapeutic monoclonal antibodies (January 2022), accessed online via UpToDate.
2. Adult resuscitation; Fluid resuscitation with saline or buffered crystalloid in adults (March 2022, Modified March 2022), accessed online via UpToDate.
3. Omicron variant associated with increased COVID-19 hospitalizations in children (March 2022), accessed online via UpToDate.
4. Hypertension; Effect of regular acetaminophen use on blood pressure (March 2022), accessed online via UpToDate.
5. Epilepsy; Antiseizure medication withdrawal in seizure-free patients (February 2022), accessed online via UpToDate.

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Low-dose aspirin does not reduce risk of spontaneous preterm birth (March 2022)

Secondary outcomes from prevention of preeclampsia trials suggested that taking low-dose aspirin (LDA) in the second and third trimesters may also reduce the risk of spontaneous preterm birth (sPTB). In the first trial to evaluate LDA versus placebo in patients with singleton pregnancies at high risk of PTB because of prior sPTB, active intervention resulted in a small, nonstatistically significant reduction in total, spontaneous, and indicated PTB.

A much larger trial is needed to determine whether this favorable trend might be true. We do not use LDA in an attempt to prevent sPTB but continue to use it to prevent preeclampsia in patients at high risk. [6]

Alternative birthing practices to avoid (February 2022)

The American Academy of Pediatrics recently advised **avoiding** the following alternative birthing practices because they have been (or may be) associated with increased risks of neonatal morbidity and mortality and have no clear benefits: **water birth, vaginal seeding, umbilical cord nonseverance, placentophagy, nonmedical deferral of hepatitis B vaccination and ocular prophylaxis, and delayed bathing of newborns** exposed to active genital herpes simplex virus lesions or maternal history of bloodborne pathogens (eg, HIV, hepatitis B or C virus). [7]

Hydroxychloroquine, chloroquine: increased risk of cardiovascular events when used with macrolide antibiotics; reminder of psychiatric reactions (February 2022)

Carefully consider the benefits and risks before prescribing systemic azithromycin or other systemic macrolide antibiotics (erythromycin or clarithromycin) to patients being treated with hydroxychloroquine or chloroquine. An observational study in patients with rheumatoid arthritis has shown that co-administration of azithromycin with hydroxychloroquine is associated with an increased risk of cardiovascular events and cardiovascular mortality. [8]



Duration of anticoagulation for low-risk provoked venous thromboembolism in pediatric patients (February 2022)

The optimal duration of anticoagulant therapy for children with venous thromboembolism (VTE) is **uncertain**. Usual practice has been to treat for three months based largely upon evidence from adult studies.

However, a recent clinical trial suggests that six weeks of therapy is sufficient for most pediatric patients with low-risk provoked VTE (ie, attributable to a transient risk factor). The trial enrolled 417 children with provoked VTE (catheter-associated in 50 percent; infection-related in 30 percent; surgery- or trauma-related in 20 percent) who were randomly assigned to six weeks or three months of anticoagulant therapy. At one year, rates of VTE recurrence were similarly low in both groups (1.1 and 1.6 percent, respectively).

Based upon these findings, **we now suggest a six-week course of treatment for pediatric patients with provoked VTE who met all of the following low-risk criteria:**

- No prior history of VTE
- The VTE is not severe or life-threatening
- The provoking risk factor resolves within six weeks

The thrombus resolves or is nonocclusive within six weeks **For patients with provoked VTE who do not meet these criteria, we continue to suggest three months of therapy.** [9]



Updated guidelines on venous thromboembolism management (January 2022)

Updated guidelines on the treatment of venous thromboembolism (VTE) were published by the American College of Chest Physicians (CHEST). Many recommendations are similar to those in the 2016 guideline but either expanded in scope or changed in strength of the recommendation. **As new recommendations, for most patients with cancer-related VTE, CHEST suggests a direct oral anticoagulant (DOAC) rather than low molecular weight heparin.** For select patients without cancer who require extended anticoagulation beyond the conventional period of three to six months, CHEST suggests low-intensity anticoagulation with a DOAC. While CHEST did not promote aspirin for VTE prevention, they suggest that it may reduce the risk of recurrence when compared with no therapy. [10]



References:

6. Low-dose aspirin does not reduce risk of spontaneous preterm birth (March 2022), accessed online via UpToDate.
7. Alternative birthing practices to avoid (February 2022), accessed online via UpToDate.
8. Hydroxychloroquine, chloroquine: increased risk of cardiovascular events when used with macrolide antibiotics; reminder of psychiatric reactions (February 2022), accessed online via MHRA Drug Safety Update.
9. Duration of anticoagulation for low-risk provoked venous thromboembolism in pediatric patients, accessed online via uptodate, cited on 23 Feb 2022.
10. Updated guidelines on venous thromboembolism management; accessed online via UpToDate.

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