October

Better Pharmacist Knowledge

Jordan Drug Information and Toxicology Center 2022

2022

New ACIP recommendations for seasonal influenza vaccination (September 2022)

In August 2022, the Advisory Committee on Immunization Practices (ACIP) issued new recommendations for seasonal influenza vaccination in the US. The ACIP now recommends that adults aged ≥65 years preferentially receive any one of the following higher dose or adjuvanted influenza vaccines: quadrivalent high-dose inactivated influenza vaccine (HD-IIV4), quadrivalent recombinant influenza vaccine (RIV4), or quadrivalent adjuvanted inactivated influenza vaccine (aIIV4). In addition, the approved age indication for the cell culture–based inactivated influenza vaccine has been changed from ≥2 years to ≥6 months. We are in agreement with this guidance. [1]

Combination pharmacotherapy for painful diabetic neuropathy (August 2022)

Combination pharmacotherapy is frequently used for patients with painful diabetic neuropathy that does not respond to initial monotherapy, despite limited data to support the efficacy of this practice. In a multicenter trial of 130 patients with painful diabetic neuropathy who were given initial monotherapy with **amitriptyline**, **pregabalin**, or **duloxetine**, those whose pain did not improve at six weeks were given a second agent from a different pharmacologic class. At 16-week follow-up, combination strategies consisting of pregabalin added to amitriptyline, amitriptyline added to pregabalin, or pregabalin added to duloxetine all provided greater benefit than monotherapy, and each strategy provided similar (approximately 50 percent) pain reduction relative to baseline pain. ***These results support the strategy of combination pharmacotherapy for patients with painful diabetic neuropathy that does not respond to initial monotherapy.*** [2]

Efficacy of moderate-dose statin plus ezetimibe for secondary prevention of cardiovascular disease (September 2022)

The long-term efficacy of combination therapy with ezetimibe plus a moderate-dose statin for the secondary prevention of cardiovascular disease (CVD) has not been well studied. In the RACING trial, which randomly assigned nearly 3800 patients with CVD to combination therapy with moderate-dose rosuvastatin plus ezetimibe or high-dose rosuvastatin monotherapy, rates of a composite of cardiovascular death, major cardiovascular events, or nonfatal stroke at three years were similar between the treatment groups (9.1 versus 9.9 percent, respectively). Patients receiving combination therapy were more likely to have low-density lipoprotein cholesterol <70 mg/dL, and discontinuation or dose reduction of the study drug was less frequent in the combination versus monotherapy group. In patients with CVD, ezetimibe plus a moderate-dose statin may be an alternative to high-dose statin therapy, particularly in those with intolerance to high-dose statins. [3]

Progestogens and risk of venous thromboembolism (September 2022)

Historically, estrogens but not progestogens were avoided in patients at increased risk of venous thromboembolism (VTE) who desired contraception or experienced abnormal uterine bleeding. In a case-control study that matched >21,000 reproductive-age patients with acute VTE with patients without prior VTE, current use of **depot medroxyprogesterone acetate (DMPA), norethindrone acetate, or MPA was associated with an increased risk of VTE compared with non-use**; the levonorgestrel-releasing intrauterine device and oral norethindrone were not associated with increased risk. Study limitations included potential bias from patient selection and treatment indication. When counseling any patient about use of DMPA or high dose oral progestogens, we discuss the possibly increased risk of VTE and consider the patient's other potential risk factors for VTE when making treatment decisions. [4]

References:

1. New ACIP recommendations for seasonal influenza vaccination (September 2022), accessed online via uptodate.
2. Combination pharmacotherapy for painful diabetic neuropathy (August 2022), accessed online via uptodate.
3. Efficacy of moderate-dose statin plus ezetimibe for secondary prevention of cardiovascular disease (September 2022), accessed online via uptodate.
4. Progestogens and risk of venous thromboembolism (September 2022), accessed online via uptodate.

Better Pharmacist Knowledge

Issue 11 JDITC

Better Pharmacist Knowledge

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Jordan Drug Information and Toxicology Center 2022

2022

Intravenous magnesium in severe COPD exacerbation (August 2022)

Intravenous magnesium has short-acting bronchodilator activity that is helpful for severe asthma attacks, but it has not previously been recommended for chronic obstructive pulmonary disease (COPD). A new systematic review and meta-analysis found a decrease in hospitalization rates with emergency department intravenous magnesium administration compared with placebo. The effect size is similar to or better than that seen in the setting of asthma exacerbation. Based on these data, we now **suggest intravenous magnesium for patients with severe COPD exacerbations who are not improving with inhaled bronchodilator therapy**. [5]

Angiotensin receptor blocker use and risk of Parkinson disease (September 2022)

Preclinical studies suggest that activation of the renin-angiotensin system may promote neurodegeneration in Parkinson disease (PD) via pro-oxidative and/or proinflammatory effects; there is corresponding interest in angiotensin receptor blockers (ARBs) as a neuroprotective strategy. In two large retrospective cohort studies, **use of an ARB was associated with lower risk of incident PD** compared with nonuse (adjusted hazard ratios 0.56 and 0.62, respectively). In one of the studies, **the association strengthened with duration of ARB use**. **Clinical trials are needed to further explore these associations**. [6]

Updated guidelines for rabies pre-exposure prophylaxis (September 2022)

The United States Centers for Disease Control and Prevention (CDC) issued updated guidelines for pre-exposure prophylaxis for rabies. Major changes include reducing the pre-exposure primary vaccination series from **three doses to two doses administered seven days apart and creating five categories of risk based on an individual's risk of being exposed and likelihood of noticing the exposure.** After completion of the primary vaccination series, the **CDC recommends that individuals in the highest risk categories receive additional titers or boosters**. If a vaccinated individual is exposed to rabies, postexposure prophylaxis varies based on their pre-exposure vaccination history or titers. We agree with these recommendations. [7]

New Consensus on Diabetes and Chronic Kidney Disease Together (October 2022)

The American Diabetes Association (ADA) and the Kidney Disease: Improving Global Outcomes (KDIGO) organization have together spelled out broad agreement on how clinicians should now manage patients with diabetes and chronic kidney disease (CKD).

It contains specific consensus statements:

- Treatment with an ACE inhibitor or ARB is important for all patients with diabetes, hypertension, and albuminuria, titrated to maximum doses.
- Statin treatment is necessary for all people with diabetes and CKD.
- Metformin is recommended for all patients with type 2 diabetes, CKD, and an eGFR of at least 30 mL/min/1.73m2, along with recommendations on eGFR-based dose adjustments for metformin.
- Treatment with an SGLT2 inhibitor with proven renal or cardiovascular benefits for all patients with type 2 diabetes, CKD, and an eGFR of at least 20 mL/min/1.73m2. The report advises continued treatment with an SGLT2 inhibitor once started even if a patient's eGFR dips below this minimum.
- The report puts treatment with a GLP-1 agonist second-line for patients with type 2 diabetes and CKD who do not reach their glycemic target on metformin and an SGLT2 inhibitor, and for patients unable to use these classes of drugs first-line. It specifies using agents from the GLP-1 agonist class with proven cardiovascular benefit and notes most agents from the class are safe even in patients with eGFR levels below 15 mL/min/1.73m2.
- The panel recommends using an agent from the nonsteroidal mineralocorticoid receptor antagonist class with proven kidney and cardiovascular benefits for patients with type 2 diabetes, CKD, and an eGFR of at least 25 mL/min/1.73m2, with an albumin-to-creatinine ratio of at least 30 mg/g, a normal serum potassium level, and on a maximum-tolerated dose of a renin-angiotensin system inhibitor. [8]

Better Pharmacist Knowledge

References:

5. **Intravenous magnesium in severe COPD exacerbation (August 2022), accessed online via uptodate.**
6. **Angiotensin receptor blocker use and risk of Parkinson disease (September 2022), accessed online via uptodate.**
7. **Updated guidelines for rabies pre-exposure prophylaxis (September 2022), accessed online via uptodate.**
8. **New Consensus on Diabetes and Chronic Kidney Disease Together (October 2022), accessed online via Medscape.**

Issue 11 JDITC

Contact us:

Toll free number: 080022540, **Phone**: 5804804 **Ext.**: 66787/66788,**Fax number**: 5804524

E-mail: rmsjditc@jrms.gov.jo, **Website:** www.jrms.jaf.mil.jo