Drug & Poison Information Center Bulletin
Faculty of Pharmacy - Tanta University

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Inside this issue:

NOVEL U.S. Food and Drug Administration (FDA) drug approvals (during June – August, 2023)

1. Veopoz (pozelimab-bbfg) injection:

It has been approved on 18/8/2023, a complement inhibitor, for the treatment of adult and pediatric patients ≥1 year of age with CD55-deficient protein-losing enteropathy (PLE), also known as CHAPLE disease. CHAPLE is a hereditary immunological disorder brought on by CD55 gene abnormalities that can result in the body's own cells attacking one another. Veopoz is the first FDA-approved treatment for CHAPLE disease. An initial dose of Veopoz is administered intravenously, followed by weekly injections given subcutaneously by a health care provider. *For more details, visit: https://www.fda.gov/drugs/news-events-human-drugs/fda-approves-first-treatment-cd55-deficient-protein-losing-enteropathy-chaple-disease .*

2. Sohonos (palovarotene) capsules:

It has been approved on 16/8/2023 for reduction in the volume of new heterotopic ossification (extra-skeletal bone formation) in adults and children aged 8 years and older for females, and 10 years and older for males with fibrodysplasia ossificans progressiva. *For more details, visit: https://www.fda.gov/drugs/news-events-human-drugs/fda-approves-first-treatment-fibrodysplasia-ossificans-progressiva.*

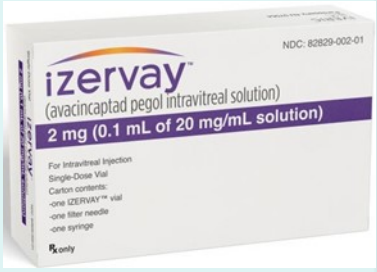
3. Elrexfio (elranatamab-bcmm) - Talvey (talquetamab-tgvs):

Both Elrexfio and Talvey have been approved on 14/8/2023 and 9/8/2023, respectively, to treat adults with relapsed or refractory multiple myeloma who have received at least four prior lines of therapy or therapies, respectively.

For more details, visit: https://www.fda.gov/drugs/resources-information-approved-drugs/fda-grants-accelerated-approval-elranatamab-bcmm-multiple-myeloma https://www.fda.gov/drugs/resources-information-approved-drugs/fda-grants-accelerated-approval-talquetamab-tgvs-relapsed-or-refractory-multiple-myeloma.

4. Izervay (avacincaptad pegol):

It has been approved on 4/8/2023 to treat geographic atrophy secondary to age-related macular degeneration. *For more details, visit: https://www.ajmc.com/view/fda-approves-new-treatment-for-geographic-atrophy.*



5. Zurzuvae (zuranolone):

It is the first oral treatment that has been approved on 4/8/2023 for postpartum depression. The daily recommended dose is 50mg. It should be taken once every day, for 14 days, in the evening with a fatty meal. *For more details, visit: https://www.fda.gov/news-events/press-announcements/fda-approves-first-oral-treatment-postpartum-depression.*

6. Xdemvy (lotilaner) 0.25%:

It has been approved on 25/7/2023 to be the first and only FDA approved treatment to directly target Demodex mites, the root cause of Demodex blepharitis. *For more details, visit: https://www.drugs.com/newdrugs/fda-approves-xdemvy-lotilaner-ophthalmic-solution-demodex-blepharitis-6066.html.*

7. Vanflyta (quizartinib):

It has been approved on 20/7/2023 to be used as part of a treatment regimen for newly diagnosed acute myeloid leukemia that is FLT3 internal tandem duplication (ITD)-positive. It is used with standard cytarabine and anthracycline induction and cytarabine consolidation, and as maintenance monotherapy following consolidation chemotherapy, for the treatment of adult patients with newly diagnosed acute myeloid leukemia (AML). For more details, visit: https://www.fda.gov/drugs/drug-approvals-and-databases/fda-approves-quizartinib-newly-diagnosed-acute-myeloid-leukemia.

8. Beyfortus (nirsevimab-alip):

It has been approved on 17/7/2023 for the prevention of Respiratory Syncytial Virus (RSV) lower respiratory tract disease in neonates and infants born during or entering their first RSV season, and in children up to 24 months of age who remain vulnerable to severe RSV disease through their second RSV season. For more details, visit: https://www.fda.gov/news-events/press-announcements/fda-approves-new-drug-prevent-rsv-babies-and-toddlers.

9. Ngenla (somatrogon-ghla):

FDA approved Ngenla (somatrogon-ghla) on 27/6/2023 as a long-acting once-weekly treatment for pediatric growth hormone deficiency. For more details, visit: https://www.drugs.com/history/ngenla.html.

10. Rystiggo (rozanolixizumab-noli):

It has been approved on 26/6/2023 for the treatment of generalized myasthenia gravis (gMG) in adults who are anti–acetylcholine receptor (AChR) or anti–muscle-specific tyrosine kinase (MuSK) antibody positive, which are the 2 most common subtypes of gMG. Rozanolixizumab-noli is a humanized IgG4 monoclonal antibody that binds to the neonatal Fc receptor, resulting in the reduction of circulating IgG. The drug is administered by subcutaneous infusion. For more details, visit: https://www.ajmc.com/view/fda-approves-rozanolixizumab-noli-for-generalized-myasthenia-gravis.

12. Columvi (glofitamab-gxbm):

It has been approved on 15/6/2023 to treat diffuse large B-cell lymphoma, not otherwise specified, or large B-cell lymphoma arising from follicular lymphoma after two or more lines of systemic therapy. For more details, visit: https://www.fda.gov/drugs/drug-approvals-and-databases/fda-grants-accelerated-approval-glofitamab-gxbm-selected-relapsed-or-refractory-large-b-cell.

By: Bassant Maher, M.Sc.

Statin use for the primary prevention of cardiovascular disease in adults (Updated version, 2022)

US Preventive Services Task Force (USPSTF) published the updated 2022 recommendation statement on the use of statins for the primary prevention of cardiovascular disease (CVD) events and mortality in adults aged 40 years and older without a history of CVD. This recommendation updates their previous statement from 2016. The recommendations apply to adults 40 years or older without a known history of CVD who do not have signs or symptoms of CVD. The recommendations are based on a systematic review of 22 RCTs and 3 observational studies. CVD, which includes conditions like coronary heart disease, stroke, and heart failure, is the leading cause of death in the US. In 2019, there were 558,000 deaths from coronary heart disease and 109,000 deaths from ischemic stroke. The USPSTF recommends starting a moderate-intensity statin for adults aged 40-75 years who have 1 or more CVD risk factors (dyslipidemia, diabetes, hypertension, smoking) and estimated 10-year CVD event risk of 10% or greater (Grade B recommendation).

For adults aged 40-75 with 1 or more CVD risk factors and estimated 10-year CVD risk of 7.5% to <10%, the USPSTF recommends selectively offering a statin, based on individual risk discussion (Grade C recommendation). For adults ≥76 years, evidence is insufficient to assess benefits and harms of initiating a statin (I statement). In adults aged 40-75 years with CVD risk factors, statins reduce risk of mortality, stroke, MI, and composite CVD outcomes compared to placebo over ~3 years. Benefits were similar across age, sex, race, and other demographic subgroups. Statins do not increase risk of harms like myalgia, liver injury, cancer, or diabetes compared to placebo. Risk of harms in adults ≥76 years is unknown.

Evidence in adults ≥76 years is limited to 2 trials showing no benefit of statins for mortality or CVD outcomes. Most trials used moderate-intensity statins. Limited evidence to compare statin intensities or titrated dosing strategies. Implementation should focus on improving appropriate statin use across sociodemographic groups, as studies show underutilization among minorities and persons with low socioeconomic status or lack of insurance.

The USPSTF concludes there is moderate net benefit for statin use in adults 40-75 years with estimated 10-year CVD risk ≥10% and small net benefit for risk 7.5%-<10%. There is insufficient evidence to recommend for or against statin initiation in adults ≥76 years.

By: Mohamed K. Talaat, PharmD.

New restrictions on Topiramate in pregnancy

The European Medicines Agency (EMA) Pharmacovigilance Risk Assessment Committee (PRAC) has recommended new measures designed to avoid topiramate (multiple brands) use during pregnancy. While it's well known that topiramate can cause major congenital malformations and fetal growth restriction when used during pregnancy, recent data also suggest a possibly increased risk for neurodevelopmental disorders when topiramate is used during pregnancy, the EMA says in a statement. The data include two observational studies that showed children born to mothers with epilepsy and who were exposed to topiramate in the womb may have a two- to threefold higher risk for neurodevelopmental disorders, in particular autism spectrum disorders (ASD), intellectual disability, or attention deficit hyperactivity disorder (ADHD), compared with children born to mothers with epilepsy not taking antiepileptic medication. For patients using topiramate for the treatment of epilepsy, the PRAC now recommends that the medicine not be used during pregnancy unless no other suitable treatment is available.

Regardless of indication, the agency says topiramate should be used in women of childbearing age only when the following conditions of the pregnancy prevention program are met:

- A pregnancy test before starting treatment;
- Counseling about the risks of topiramate treatment and the need for highly effective contraception throughout treatment; and
- A review of ongoing treatment at least annually by completion of a risk awareness form.

The PRAC recommends that healthcare professionals ensure women of childbearing age are fully aware of the risks of taking topiramate during pregnancy. They say alternative treatment options should be considered and the need for topiramate treatment should be reassessed at least annually.

References:

- *PRAC Recommends New Restrictions on Topiramate in Pregnancy. Available at:https://www.medscape.com/viewarticle/996113?src=. Accessed in August, 2023.*
- *PRAC recommends new measures to avoid topiramate exposure in pregnancy. Available at: https://www.ema.europa.eu/en/news/prac-recommends-new-measures-avoid-topiramate-exposure-pregnancy. Accessed in August, 2023.*

By: Marwa Elsayed, PGCPD.

ESC backs SGLT2i Plus GLP-1 for diabetes patients with high CVD risk

The era of guidelines that recommended treatment with either a sodium-glucose cotransporter-2 (SGLT-2) inhibitor or a glucagon-like peptide-1 (GLP-1) receptor agonist in people with type 2 diabetes mellitus and established cardiovascular disease (CVD) ended with new recommendations from the European Society of Cardiology (ESC) that call for starting both classes simultaneously.

The society's new guidelines for managing CVD in patients with diabetes, released on August 25, call for starting treatment with both an SGLT-2 inhibitor and a GLP-1 receptor agonist without regard to a person's existing level of glucose control, including their current and target hemoglobin A1c levels, and regardless of background therapy. Instead, the new guidance calls for starting both drug classes promptly in people diagnosed with type 2 diabetes and established atherosclerotic CVD. Both the previous ESC guidelines from 2019 and the current Standards of Care for 2023 document from the American Diabetes Association call for using one class or the other, but they hedge on combined treatment as discretionary.

Different Mechanisms Mean Additive Benefits

With increasing numbers of patients with type 2 diabetes in trials for SGLT-2 inhibitors or GLP-1 receptor agonists who were also on the other drug class, large, stratified analyses suggest no treatment-effect modification when people received agents from both drug classes. At the same time, the mechanisms of action of these drugs are not known for CVD, and the use of different mechanisms appears to have at least partially additive effects. Their benefits for CVD risk reduction are completely independent of their glucose effects. They are cardiology drugs.

The new ESC guidelines highlight two other clinical settings where people with type 2 diabetes should receive an SGLT-2 inhibitor regardless of their existing level of glucose control and any other medical treatment: people with heart failure and people with chronic kidney disease (CKD) based on a depressed estimated glomerular filtration rate and an elevated urine albumin-to-creatinine ratio. The ESC's guideline panel considered Nephropathy to confer risk similar to established atherosclerotic CVD. The guidelines also, for the first time for ESC recommendations, made treatment with finerenone (Kerendia, Bayer) a class 1 level A recommendation for people with type 2 diabetes and CKD.

SCORE2-Diabetes Risk Estimator:

Another major change in the new ESC guideline revision is introduction of a CVD risk calculator intended to estimate the risk among people with type 2 diabetes but without established CVD, heart failure, or CKD.

Called the SCORE2-Diabetes risk estimator, it calculates a person's 10-year risk for CVD and includes adjustment based on the European region where a person lives; it also tallies different risk levels for women and for men.

Key features of the calculator include its use of routinely collected clinical values, such as age, sex, systolic blood pressure, smoking status, serum cholesterol levels, age at diabetes diagnosis, hemoglobin A1c level, and estimated glomerular filtration rate.

The guidelines say that people who have a low (<5%) or moderate (5%-9%) 10-year risk for CVD are possible candidates for metformin treatment. Those with high (10%-19%) or very high (≥20%) risk are possible candidates for treatment with metformin and/or an SGLT-2 inhibitor and/or a GLP-1 receptor agonist on the new risk score. The risk score is a good addition because it estimates future CVD risk better and more systematically than usual practice, which generally relies on no systematic tool.

References:

- *Marx N, Federici M, Schütt K, et al. 2023 ESC Guidelines for the management of cardiovascular disease in patients with diabetes. Eur Heart J. Published online 2023:1-98. doi:10.1093/eurheartj/ehad192.*
- *https://www.medscape.com/viewarticle/995877#vp_2.*

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Vision

The vision of Tanta University DPIC is to improve national healthcare service through provision of evidence-based, unbiased, patient oriented drug information services & adverse drug reporting system.

Mission

* Responding to drug inquiries related to the use of the drug and providing the health care professionals and patients with drug information related to the patient's care to achieve the optimal use of the drug in addition to the provision of other toxicological managing information.
* Educational activities to support the rational optimal use of drugs as well, supporting research activities.
* Continuous medical education and training courses in various fields of pharmacy for students, undergraduates, postgraduate students, and researchers.
* Issuing a Drug Information Bulletin periodically to take a look at medical & pharmaceutical news.
* Supporting the National Pharmaceutical Vigilance Program by following up and monitoring side effects and problems related to use of pharmaceutical preparations within regional hospitals.
* Contributing to the establishment of various treatment protocols and prescription booklet services in regional hospitals.

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