CENTER FOR HEALTHCARE INNOVATION AND PATIENT OUTCOMES RESEARCH

Samford University
McWhorter School of Pharmacy

NEW DRUG FAX SHEET

http://www.samford.edu/go/chipor

Volume 24 (Issue 6) **June 17, 2019**

This issue of *New Drug FAX Sheet* briefly reviews topics that include new drug approvals, new drug formulations, and new drug indications. If you need further information, please contact the Center for Healthcare Innovation and Patient Outcomes Research (CHIPOR) at chipor@samford.edu.

NEW DRUG APPROVALS

Tafamidis meglumine (Vyndaqel, Pfizer Labs)
Pharmacology: Selective transthyretin stabilizer.
Indication: Treatment of cardiomyopathy of wild-type or hereditary transthyretin-mediated amyloidosis in adults.
Adverse Drug Reactions: None observed in clinical trials.
Dose: 80 mg orally once daily.
Formulation: 20-mg capsule.
Warnings/Contraindications: Should not be used while breastfeeding or while pregnant.
Notes: Capsule should be swallowed whole and not crushed or cut. Not substitutable on a per mg basis with Vyndamax. Induces CYP2B6 and CYP 3A4. Inhibits BCRP and intestinal activity of UGT1A1.

Tafamidis (Vyndamax, Pfizer Labs)
Pharmacology: Selective transthyretin stabilizer.
Indication: Treatment of cardiomyopathy of wild-type or hereditary transthyretin-mediated amyloidosis in adults.
Adverse Drug Reactions: None observed in clinical trials.
Dose: 61 mg orally once daily.
Formulation: 61-mg capsule.
Warnings/Contraindications: Should not be used while breastfeeding or while pregnant.
Notes: Capsule should be swallowed whole and not crushed or cut. Not substitutable on a per mg basis with Vyndaqel. Induces CYP2B6 and CYP 3A4. Inhibits BCRP and intestinal activity of UGT1A1. This formulation was developed for patient convenience due to its once daily dosing.

Amifampridine (Ruzurgi, Jacobus Pharmaceutical Company, Inc.)
Pharmacology: Broad spectrum potassium channel blocker.
Indication: Treatment of Lambert-Eaton myasthenic syndrome in patients 6 to less than 17 years of age.
Adverse Drug Reactions: Paresthesia/dysesthesia, abdominal pain, dyspepsia, dizziness, nausea back pain, hypoesthesia, muscle spasms, and seizures.
Dose: Based on weight of patient; ≥45kg: 15-30 mg 2-3 times daily, maximum daily dose is 100 mg; <45kg 7.5-15 mg 2-3 times daily, maximum daily dose is 50mg.
Formulation: 10 mg tablets.
Warnings/Contraindications: Contraindicated with patients who have a history of seizures or are hypersensitive to amifampridine or another aminopyridine.
Notes: Use the lowest recommended dose in patients with hepatic or renal impairment or who are N-acetyltransferase 2 poor metabolizers. Avoid use in those with end stage renal disease. Avoid concomitant use with drugs that lower the seizure threshold. Caution with drugs with cholinergic effects as this can increase risk of adverse reactions.

Alpelisib (Piqray, Novartis Pharmaceuticals Corporation)
Pharmacology: PI3K inhibitor.
Indication: Treatment of postmenopausal women, and men, with HR (+), HER2 (-), PIK3CA-mutated, advanced or metastatic breast cancer.
Adverse Drug Reactions: Diarrhea, nausea, stomatitis, vomiting, abdominal pain, dyspepsia, fatigue, mucosal inflammation, peripheral edema, pyrexia, mucosal dryness, urinary tract infection, weight loss, decreased appetite, dysgeusia, headache, rash, alopecia, pruritus, dry skin, and laboratory abnormalities.
Dose: 300 mg taken orally once daily with food.
Formulation: 50-mg, 150-mg, 200-mg tablets.

CONTINUED NEXT PAGE

Alpelisib (Piqray, Novartis Pharmaceuticals Corporation) (continued)
Warnings/Contraindications: Contraindicated in patients with severe hypersensitivity to any of its components. Severe cutaneous reactions; hyperglycemia; pneumonitis; diarrhea; embryo-fetal toxicity; severe hypersensitivity.
Notes: If adverse reactions occur, consider dose interruption, dose reduction or discontinuation. Avoid use with CYP3A4 inducers and BCRP inhibitors. Closely monitor use with CYP2C9 substrates.

NEW DRUG FORMULATIONS

Dapagliflozin; saxagliptin; metformin hydrochloride (Qternmet XR, AstraZeneca Pharmaceuticals, LP)
Pharmacology: SGLT2 inhibitor, DPP-4 inhibitor, and biguanide.
Indication: Type 2 diabetes mellitus in patients who are currently taking metformin.
Dosage form: Tablet: 2.5/2.5/1000 mg; 5/2.5/1000 mg; 5/5/1000 mg; 10/5/1000mg.
Dose: Individualize total daily dose based on the patient's current regimen, effectiveness, and tolerability. Take once daily in the morning with food.

Midazolam (Nayzilam, Proximagen, LLC)
Pharmacology: Benzodiazepine.
Indication: Acute treatment of intermittent, stereotypic episodes of frequent seizure activity that are distinct from a patient's usual seizure pattern in patients with epilepsy ≥12 years of age.
Dosage form: Single-dose nasal spray unit containing 5mg/0.1mL solution.
Dose: Administer one spray into one nostril; administer another spray in the opposite nostril if patient has not responded after 10 minutes since the initial dose; do not use more than 2 doses to treat a seizure cluster.

Drospirenone (Slynd, Exeltis USA, Inc.)
Pharmacology: Progestin-only oral contraceptive.
Indication: To prevent pregnancy.
Dosage form: 24 tablets with 4 mg of drospirenone and 4 green inert tablets in a blister card.
Dose: Take one tablet daily for 28 days.

NEW DRUG INDICATIONS

Lenalidomide (Revlimid, Celgene Corporation)
Pharmacology: Antineoplastic and immunomodulating agent; angiogenesis inhibitor.
New indication: For the treatment of adult patients with previously treated follicular lymphoma or marginal zone lymphoma in combination with rituximab.
Dose: 20 mg orally once daily on days 1-21 of each 28 day cycle for up to 12 cycles plus rituximab 375mg/m^2 on days 1, 8, 15, and 22 in cycle 1 and on day 1 of every 28 day cycle for cycles 2-5.

Ruxolitinib (Jakafi, Incyte Corporation)
Pharmacology: Janus kinase inhibitor.
New indication: For the treatment of patients with acute graft-versus-host disease.
Dose: 5 mg orally twice daily; after 3 days of treatment may increase to 10 mg twice daily if ANC and platelet counts are not decreased by >50% compared to baseline values.

Cariprazine (Vraylar, Allergan Plc./Gedeon Richter Plc.)
Pharmacology: Dopamine D_3/D_2 receptor partial agonist; atypical antipsychotic.
New indication: For the treatment of bipolar depression.
Dose: 1.5 mg orally once daily; may increase to 3 mg once daily on day 15 based on clinical response and tolerability; maximum dose of 3 mg once daily.

Dalteparin sodium (Fragmin, Pfizer Labs)
Pharmacology: Low molecular weight heparin; anticoagulant.
New indication: For the treatment of venous thromboembolism in pediatric patients.
Dose: 129 ± 43 units/kg subcutaneously every 24 hours; adjust dose to achieve anti-Xa activity range of 0.5-1 unit/mL 4-6 hours after injection or a range of 0.5-0.8 units/mL 2-6 hours after injection.

Teduglutide (Gattex, Takeda Pharmaceuticals, U.S.A., Inc.)
Pharmacology: Glucagon-like peptide-2 analog.
New indication: For the treatment of short bowel syndrome in children ≥1 years old.
Dose: 0.05 mg/kg subcutaneous injection once daily; alternate injection sites.

CONTINUED NEXT PAGE

Venetoclax (Venclexta, AbbVie)
Pharmacology: B-cell lymphoma-2 inhibitor.
New indication: Chemotherapy-free combination regimen for previously untreated chronic lymphocytic leukemia.
Dose: Use in combination with obinutuzumab; on day 22 of cycle 1, start a 5-week ramp-up schedule: week 1—20 mg once daily for 7 days; week 2—50mg/day; week 3—100 mg/day; week 4—200 mg/day; week 5 and beyond—400mg/day. After completing this schedule, continue 400 mg/day from cycle 3 day 1 until the last day of cycle 12.

Avelumab (Bavencio, Merck KGaA, Darmstadt, Germany/ Pfizer Inc.)
Pharmacology: Programmed death ligand-1 blocking antibody.
New indication: For use in combination with axitinib for patients with advanced renal cell carcinoma.
Dose: 800 mg IV infusion over 60 minutes every 2 weeks in combination with axitinib 5 mg orally every 12 hours; Premedicate with antihistamine and acetaminophen prior to the first 4 infusions.

Aflibercept (Eylea, Regeneron Pharmaceuticals, Inc.)
Pharmacology: Vascular endothelial growth factor inhibitor.
New indication: Diabetic retinopathy.
Dose: 2 mg injected intravitreally every 4 weeks for 5 injections; premedicate with adequate anesthesia and a topical broad-spectrum microbicide prior to injection.

Ramucirumab (Cyramza, Eli Lilly and Company)
Pharmacology: Human vascular endothelial growth factor receptor 2 antagonist.
New indication: For the treatment of hepatocellular carcinoma in patients who have an alphafetoprotein ≥400 ng/mL and have been treated with sorafenib.
Dose: 8 mg/kg IV infusion over 60 minutes every 2 weeks; premedicate with diphenhydramine before infusion.

IncobotulinumtoxinA (Xeomin, Merz Americas)
Pharmacology: Botulinum toxin type A.
New indication: Treatment of blepharospasm in adult patients.
Dose: 25 units per eye in treatment naïve patients; in patients who have been treated with botulinum toxin A, consider past dose, response to dose, duration of effect, and adverse events; maximum dose of 50 units per eye.

Immune globulin intravenous (Bivigam, ADMA Biologics, Inc.)
Pharmacology: Immune globulin.
New indication: Primary humoral immunodeficiency.
Dose: 300-800 mg/kg IV infusion once every 3-4 weeks; initial infusion rate should be 0.5 mg/kg/min; may increase by 0.8 mg/kg/min to a maximum of 6 mg/kg/min.

Calcipotriene (Sorilux, Mayne Pharma Group Limited)
Pharmacology: Vitamin D analog.
New indication: Adolescent (≥12 years) plaque psoriasis.
Dose: Apply a thin layer of 0.005% foam topically twice daily to the affected area.

Ado-trastuzumab emtansine (Kadcyla, Genentech, member of Roche Group)
Pharmacology: HER-2 targeted antibody.
New indication: Adjuvant treatment of HER2-positive early breast cancer.
Dose: 3.6 mg/kg IV infusion every 3 weeks; infuse first infusion over 90 minutes and subsequent infusions over 30 minutes; do not exceed 3.6 mg/kg/dose. Treat for a total of 14 cycles.

Ivosidenib (Tibsovo, Agios Pharmaceuticals, Inc.)
Pharmacology: Isocitrate dehydrogenase-1 inhibitor.
New indication: Treatment of isocitrate dehydrogenase-1 mutant acute myeloid leukemia in newly diagnosed adult patients who are not eligible for intensive chemotherapy.
Dose: 500 mg orally once daily for a minimum of 6 months.

Prepared by: Chelsea Norton, Pharm.D. Candidate Reviewed by: Maisha Kelly Freeman, Pharm.D., MS, BCPS, FASCP

New drug approvals, formulations, and indications. *New Drug FAX Sheet.* 2019 June 17;24(6):1-3.