WASHINGTON STATE UNIVERSITY
College of Pharmacy and Pharmaceutical Sciences

**Drug Information Center**

# Highlights of FDA Activities – 8/1/22 – 8/31/22

## *FDA Drug Safety Communications & Drug Information Updates:*

**Warning Letters Issued for Selling Unapproved New Drugs for Mole and Skin Tag Removal** 8/9/22
The FDA issued warning letters to Amazon, Ariella Naturals, and Justified Laboratories for introducing unapproved new drugs into interstate commerce. There are no FDA-approved drug products for the removal of moles or skin tags. Moles should be evaluated by a health care practitioner.

**At-Home COVID-19 Antigen Tests – Risk of False Negative Results – FDA Safety Communication** 8/11/22
The FDA advised people to perform repeat, or serial, testing following a negative result on any at-home COVID-19 antigen test. Infection may be missed if repeat testing is not performed after a negative result. The FDA recommends repeat testing even if asymptomatic.

**FDA Finalizes Rule Enabling Access to Over-the-Counter Hearing Aids** 8/16/22
The FDA finalized a rule on OTC hearing aids enabling consumers with perceived mild to moderate hearing impairment to purchase hearing aids directly from stores or online retailers without the need for a medical exam, prescription, or fitting adjustment.

**Glatiramer Acetate Injection: Drug Safety Communication – Cross-Compatibility of Autoinjectors** 8/18/22
The FDA alerted patients, caregivers, and health care professionals that the optional autoinjector devices for glatiramer acetate injection may not be compatible for use across FDA-approved glatiramer acetate injection products. This may result in missed or partial doses. Manufacturers have been asked to update their labeling to instruct users to confirm the autoinjector is compatible before use.

**Novavax COVID-19 Vaccine, Adjuvanted – Emergency Use Authorization (EUA) Expanded** 8/19/22
The EUA for the Novavax COVID-19 Vaccine, Adjuvanted, was expanded to include use in the prevention of COVID-19 in individuals 12 through 17 years of age.

**Fecal Microbiota for Transplantation: Safety Alert – Safety Pertaining to Monkeypox Virus** 8/24/22
The FDA informed health care providers and patients of the potential risk of transmission of monkeypox virus through fecal microbiota for transplantation (FMT). Viable viruses have been isolated from rectal swabs from three individuals, although risk of transmission is unknown. Additional protections have been added to the use of FMTs.

**FDA Authorizes Moderna, Pfizer-BioNTech Bivalent COVID-19 Vaccines for Use as a Booster Dose** 8/30/22
The FDA amended the EUAs of the Moderna and Pfizer COVID-19 vaccines to authorize bivalent formulations for use as a single booster dose at least two months following primary or booster vaccination. Moderna's bivalent COVID-19 vaccine is authorized in ages 18 and older, while Pfizer's is authorized in those 12 years or older.

## *Major Medication/Drug-Related Product Recalls Announced Through MedWatch:*

**Milk of Magnesia Oral Suspension and Magnesium Hydroxide/Aluminum Hydroxide/Simethicone Oral Suspension by Plastikon Healthcare: Recall – Due to Microbial Contamination** 8/5/22
Plastikon Healthcare, LLC updated the recall initiated on June 3, 2022 and expanded it to include Lot 20076A of Magnesium Hydroxide 1200 mg/Aluminum Hydroxide 1200 mg/Simethicone 120 mg per 30 mL Oral Suspension. This lot has been added to the current recall based on updated microorganism speciation data from third-party testing. The complete list of recalled products and lots can be found on the FDA website.

**Nutritional & Beverage Products, Lyons Magnus LLC: Recall – Due to Microbial Contamination** 8/5 & 8/12/22
Lyons Magnus LLC recalled nutritional and beverage products, including thickened beverages and nutritional drinks such as Lyons Ready Care and Glucerna, due to the potential for microbial contamination, including from the organisms *Cronobacter sakazakii* and *Clostridium botulinum*. A complete list of recalled products can be found on the FDA website.

**Intraosseous Needle Set Kits, Manual Driver Kits, and Powered Drivers, Becton Dickinson: Recall – Issues That May Cause Delayed Treatment Delivery** 8/11/22
Becton Dickinson recalled the BD Intraosseous Needle Set Kits, BD Intraosseous Manual Driver Kits, and BD Intraosseous Powered Drivers due to separate issues that may result in loss of intraosseous access or delays in ability to place functional intraosseous access.

**Propofol Injectable Emulsion (Containing Benzyl Alcohol) by Hospira: Recall – Due to The Potential Presence of Visible Particulates** 8/22/22
Hospira recalled one lot of Propofol Injectable Emulsion (EA7470) containing benzyl alcohol, 100 mL Single Patient Use Glass Flip-top Vial due to visible particulates observed in 2 vials during annual examination of retained samples.

**Intera 3000 Hepatic Artery Infusion Pump, Intera Oncology: Recall – Faster Than Expected Flow Rates** 8/29/22
Intera Oncology recalled the Intera 3000 Hepatic Artery Infusion Pump after receiving reports from clinicians that the pumps were delivering medications at faster flow rates than expected. The products were distributed from 8/12/21 to 5/17/22.

## ***Dietary Supplement Recalls & Public Notifications***

Notifications were issued regarding undeclared active ingredients or contaminants in the following products. Patients are advised not to purchase or use these products.

| ***Product*** | ***Promoted Use*** | ***Undeclared Ingredient(s) or Contaminants*** |
|---|---|---|
| Sangter Energy Supplement* | Sexual Enhancement | Sildenafil |
| Launch Sequence Capsules* | Sexual Enhancement | Tadalafil |

*recalled

| ***New Product Shortages*** | ***Date Initially Posted*** |
|---|---|
| Flurazepam Hydrochloride Capsules | 8/3/22 |

| ***Brand Name or Sole Source Product Discontinuations/Withdrawals*** | ***Date Posted*** |
|---|---|
| Invanz (ertapenem sodium, NDC 0006-3843-71); remains available as a generic | 8/2/22 |
| Polytrim (polymyxin b sulfate, trimethoprim sulfate ophthalmic solution, NDC 0023-7824-10); remains available as a generic | 8/22/22 |
| Corlopam (fenoldopam mesylate injection, NDC 00409-3373-01 and 00409-3373-02); remains available as a generic | 8/30/22 |
| Synercid (quinupristin 150 mg and dalfopristin 350 mg Injection, NDC 61570-0260-10) | 8/30/22 |

| ***New Drug Approvals:*** | ***Description (See Attached Drug Summaries)*** | ***Date Approved*** |
|---|---|---|
| Ranibizumab-eqrn / Cimerli / Coherus BioSciences, Inc | Biosimilar to Lucentis (ranibizumab injection); VEGF Inhibitor indicated for the treatment of several ocular conditions | 8/2/22 |
| Betibeglogene autotemcel / Zynteglo / bluebird bio, Inc | Cell-based gene therapy for the treatment of beta-thalassemia in patients requiring regular red blood cell transfusions | 8/17/22 |
| Olipudase alfa-rpcp / Xenpozyme / Genzyme Corp | Exogenous sphingomyelinase for the treatment of non-central nervous system manifestations of sphingomyelinase deficiency (ASMD) in adult and pediatric patients | 8/31/22 |

| ***New Indications:*** | ***Description*** | ***Date Approved*** |
|---|---|---|
| Relugolix, estradiol, and norethindrone / Myfembree / Myovant Sciences | Management of moderate to severe pain associated with endometriosis | 8/5/22 |
| Darolutamide / Nubeqa / Bayer | Treatment of adult patients with metastatic hormone-sensitive prostate cancer in combination with docetaxel. | 8/5/22 |
| Fam-trastuzumab deruxtecan-nxki / Enhurtu / Daiichi Sankyo | Treatment of adult patients with unresectable or metastatic HER2 low (IHC 1+ or IHC 2+/ISH-) breast cancer who have received a prior chemotherapy in the metastatic setting or developed disease recurrence during or within 6 months of completing adjuvant chemotherapy. | 8/5/22 |
| Fam-trastuzumab deruxtecan-nxki / Enhurtu / Daiichi Sankyo | Treatment of adult patients with unresectable or metastatic non-small cell lung cancer whose tumors have an activating HER2 (ERBB2) mutation and who have received a prior systemic therapy | 8/11/22 |
| Baloxavir marboxil / Xofluza / Genentech | Indication expanded to include use for the treatment and post-exposure prophylaxis of influenza in patients 5 to 12 years of age | 8/11/22 |
| Ibrutinib / Imbruvica / Pharmacyclics LLC | Indication expanded to include use in pediatric patients aged 1 year and older with chronic graft versus host disease after failure of one or more lines of systemic therapy | 8/24/22 |
| Pemigatinib / Pemazyre / Incyte Corp. | Treatment of adults with relapsed or refractory myeloid/lymphoid neoplasms with fibroblast growth factor receptor 1 (FGFR1) rearrangement | 8/26/22 |

| ***New Dosage Forms or Formulation:*** | ***Description*** | ***Date Approved*** |
|---|---|---|
| Acalabrutinib Maleate / Calquence / AstraZeneca | Film-coated tablets: 100 mg; for the treatment of chronic lymphocytic leukemia or small lymphocytic lymphoma and for the treatment of mantle cell lymphoma in patients who have received at least one prior therapy | 8/3/22 |
| Dextromethorphan hydrobromide and bupropion hydrochloride / Auvelity / Axsome Therapeutics, Inc. | ER Tablets: dextromethorphan HBr 45 mg/bupropion HCl 105 mg; for the treatment of major depressive disorder in adults (see attached drug summary) | 8/18/22 |
| Adalimumab-bwwd / Hadlima / Samsung Bioepis Co., Ltd. | Prefilled syringe and prefilled auto-injector: 40 mg/0.4 mL | 8/15/22 |
| Ibrutinib / Imbruvica / Pharmacyclics LLC | Oral suspension: 70 mg/mL; new dosage form approved in conjunction with expanded indication for pediatric patients 1 year of age and older with chronic graft versus host disease after failure of one or more lines of systemic therapy | 8/24/22 |
| Omeprazole and sodium bicarbonate / Konvomep / Azurity Pharmaceuticals | Oral suspension: 2 mg omeprazole and 84 mg sodium bicarbonate per mL after reconstitution in 90 mL, 150 mL, and 300 mL bottles; for treatment of active benign gastric ulcer in adults or reduction of risk of upper gastrointestinal bleeding in critically ill adult patients | 8/30/22 |

***Compiled by:***

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| **Ranibizumab-eqrn / Cimerli / Coherus BioSciences, Inc.** | |
|---|---|
| Generic Name / Brand Name / Company | Ranibizumab-eqrn / Cimerli / Coherus BioSciences, Inc. |
| Date of approval | 8/2/22 |
| Drug Class (Mechanism of Action if novel agent) | VEGF Inhibitor |
| Indication | Treatment of:<br>- Neovascular (Wet) Age-Related Macular Degeneration (AMD)<br>- Macular Edema Following Retinal Vein Occlusion (RVO)<br>- Diabetic Macular Edema (DME)<br>- Diabetic Retinopathy (DR)<br>- Myopic Choroidal Neovascularization (mCNV) |
| Comparative agent – Therapeutic interchange? | Lucentis (ranibizumab injection) – Interchangeable biosimilar |
| Dosage forms/strengths. | Single-dose glass vial designed to provide 0.05 mL for intravitreal injection<br>- 0.5 mg/0.05 mL (10 mg/mL) solution<br>- 0.3 mg/0.05 mL (6 mg/mL) solution |
| Common Dose/sig | For DME and DR: Inject 0.3 mg (using 6 mg/mL soln.) by intravitreal injection once a month (~28 days)<br>For AMD, RVO, mCNV: Inject 0.5 mg (using 10 mg/mL soln.) by intravitreal injection once a month (~28 days) |
| DEA Schedule | None |
| Date of market availability | October 2022 |
| Similar Medication Names | Ranibizumab (Lucentis); ranitidine |
| **Clinical Use Evaluation** | |
| Common Adverse Effects | Conjunctival hemorrhage, eye pain, vitreous floaters, increased intraocular pressure |
| Severe Adverse Effects | Endophthalmitis, rhegmatogenous retinal detachment, iatrogenic traumatic cataract |
| Severe Drug-Drug Interactions | None known |
| Severe Drug-Food Interactions | None known |
| Important Labs Values to assess prior to order entry or at point of clinical follow up. | None |
| Used in Pediatric Areas | Safety and effectiveness have not been established in pediatric patients. |
| Renal or Hepatic Dosing | No dose adjustment needed for renal impairment. No data regarding hepatic dosing. |
| Critical Issues (i.e., contraindications, warnings, etc) that should be emphasized | Contraindications:<br>- Ocular or periocular infections<br>- Hypersensitivity<br>Warnings/Precautions:<br>- Endophthalmitis and retinal detachments may occur following intravitreal injections. Monitor following injection.<br>- Increased intraocular pressure has been noted pre- and post-intravitreal injection. Monitor intraocular pressure. |

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| | - Potential risk of arterial thromboembolic events following intravitreal use of VEGF inhibitors<br>- Fatal events occurred more frequently in patients with DME and DR at baseline, who were treated monthly with ranibizumab compared with control |
| Special administration techniques or considerations | 5-micron filter needle (19-gauge x 1-½ inch) should be used to draw the medication. Withdraw all the liquid from the vial ensuring it is drawn back to completely empty the filter needle. Discard the filter needle and use a 30-gauge x ½ inch sterile needle for injection.<br>Intravitreal injection should be carried out under controlled aseptic conditions, which include use of sterile gloves, sterile drape, and sterile eyelid speculum (or equivalent). Adequate anesthesia and broad-spectrum microbicide should be given prior to injection. |
| Prepared by | Darren Miguel and Brittney Kessel |
| Source | Cimerli (ranibizumab-eqrn) [prescribing information]. Coherus BioSciences, Inc. August 2022 |

| **Dextromethorphan hydrobromide and bupropion hydrochloride / Auvelity / Axsome Therapeutics, Inc.** | |
|---|---|
| Generic Name / Brand Name / Company | Dextromethorphan HBr and bupropion HCl / Auvelity / Axsome Therapeutics, Inc. |
| Date of approval | 8/18/22 |
| Drug Class (Mechanism of Action if novel agent) | Dextromethorphan: NMDA receptor antagonist, sigma-1 receptor agonist<br>Bupropion: aminoketone, CYP2D6 inhibitor |
| Indication | Treatment of major depressive disorder in adults |
| Comparative agent – Therapeutic interchange? | Bupropion – Not equivalent |
| Dosage forms/strengths. | ER tablets: dextromethorphan HBr 45 mg/bupropion HCl 105 mg |
| Common Dose/sig | One tablet once daily in the morning. After 3 days, increase to maximum recommended dose of one tablet twice daily, given at least 8 hours apart. Not to exceed two doses daily. |
| DEA Schedule | None |
| Date of market availability | October 2022 |
| Similar Medication Names | Dextroamphetamine, dextrose |
| **Clinical Use Evaluation** | |
| Common Adverse Effects | ≥5%: dizziness, headache, diarrhea, somnolence, dry mouth, sexual dysfunction, hyperhidrosis |
| Severe Adverse Effects | Seizures, hallucinations, loss of consciousness, mental status changes, sinus tachycardia, ECG changes, clonus, myoclonus, hyperreflexia, rhabdomyolysis, serotonin syndrome |
| Severe Drug-Drug Interactions | MAOIs, serotonergic drugs, drugs that lower seizure threshold, strong CYP2D6 inhibitors, strong CYP2B6 inducers, CYP2D6 substrates, digoxin, dopaminergic drugs, alcohol, |
| Severe Drug-Food Interactions | None known |
| Important Labs Values to assess prior to order entry or at point of clinical follow up. | None |
| Used in Pediatric Areas | Safety and effectiveness have not been established in pediatric patients |
| Renal or Hepatic Dosing | Maximum dose one tablet by mouth once daily in moderate renal impairment. Avoid use in severe renal impairment and severe hepatic impairment. |

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| Critical Issues (i.e., contraindications, warnings, etc) that should be emphasized | Contraindications:<br>- Seizure disorder<br>- Current or prior diagnosis of bulimia or anorexia nervosa<br>- Abrupt discontinuation of alcohol, benzodiazepines, barbiturates, and antiepileptics<br>- Use of MAOI within 14 days of starting treatment<br>- Known hypersensitivity to bupropion, dextromethorphan, or other components<br>Warnings/Precautions:<br>- Seizure (dose-related; discontinue if seizure occurs)<br>- Increased blood pressure & hypertension<br>- Activation of mania or hypomania<br>- Psychosis and other neuropsychiatric reactions<br>- Angle-closure glaucoma<br>- Dizziness<br>- Serotonin syndrome<br>- Embryo-fetal toxicity |
| Special administration techniques or considerations | Assess blood pressure and monitor periodically during treatment. Maximum dose of one tablet by mouth once daily in poor CYP2D6 metabolizers. Tablets should be swallowed whole. |
| Prepared by | Darren Miguel and Brittney Kessel |
| Source | Auvelity (dextromethorphan hydrobromide and bupropion hydrochloride) [prescribing information]. Axsome Therapeutics, Inc. August 2022 |

| **Betibeglogene autotemcel / Zynteglo / Bluebird Bio, Inc.** | |
|---|---|
| Generic Name / Brand Name / Company | Betibeglogene autotemcel / Zynteglo / Bluebird Bio, Inc. |
| Date of approval | 8/19/22 |
| Drug Class (Mechanism of Action if novel agent) | Autologous hematopoietic stem cell-based gene therapy |
| Indication | Treatment of beta-thalassemia in adult and pediatric patients who require regular red blood cell transfusions |
| Comparative agent – Therapeutic interchange? | None |
| Dosage forms/strengths. | Four 20 mL infusion bags containing 2.0 to 20 x $10^6$ cells/mL suspended in cryopreservation solution. |
| Common Dose/sig | Minimum recommended dose is 5.0 x $10^6$ CD34+ cells/kg. See Lot Information Sheet with product shipment for details. |
| DEA Schedule | None |
| Date of market availability | Currently unknown |
| Similar Medication Names | Zantac |
| **Clinical Use Evaluation** | |
| Common Adverse Effects | ≥20%: mucositis, febrile neutropenia, vomiting, fever, alopecia, epistaxis, abdominal pain, musculoskeletal pain, cough, headache, diarrhea, rash, constipation, nausea, decreased appetite, pigmentation disorder, and pruritis |
| Severe Adverse Effects | Febrile neutropenia, mucositis, pyrexia, venoocclusive liver disease, sepsis, epistaxis, decreased appetite, hypoxia, neutropenia, thrombocytopenia, leukopenia, anemia, and lymphoma |
| Severe Drug-Drug Interactions | Anti-retrovirals, hydroxyurea, iron chelators |
| Severe Drug-Food Interactions | None known |
| Important Labs Values to assess prior to order entry or at point of clinical follow up. | Hemoglobin maintained at ≥ 11 g/dL for at least 30 days prior to mobilization and 30 days prior to myeloablative conditioning.<br>Screening for HBV, HCV, HTLV-1/HTLV-2, HIV-1/HIV-2 |

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| Used in Pediatric Areas | Approved in pediatrics, but safety and efficacy have not been established in patients less than 4 years of age. |
| Renal or Hepatic Dosing | Impact of renal and hepatic impairment has not been studied. Patients should be assessed for renal and hepatic impairment to ensure HSC transplantation is appropriate. |
| Critical Issues (i.e., contraindications, warnings, etc) that should be emphasized | Contraindications:<br>- None<br>Warnings/Precautions:<br>- Delayed platelet engraftment<br>- Risk of neutrophil engraftment failure<br>- Risk of insertional oncogenesis<br>- Hypersensitivity reactions |
| Special administration techniques or considerations | Confirm that the patient identity matches the unique patient identifiers on the infusion bags. Product must be administered within 4 hours of thawing. Do not use in-line blood filter or infusion pump. Administer via IV infusion over a period of < 30 minutes. Flush with at least 50 mL of 0.9% sodium chloride solution. |
| Prepared by | Darren Miguel and Brittney Kessel |
| Source | Zynteglo (betibeglogene autotemcel) [prescribing information]. Bluebird Bio, Inc. August 2022 |

| **Olipudase alfa-rpcp / Xenpozyme / Genzyme Corp** | |
|---|---|
| Generic Name / Brand Name / Company | Olipudase alfa-rpcp / Xenpozyme / Genzyme Corp |
| Date of approval | 8/31/22 |
| Drug Class (Mechanism of Action if novel agent) | Exogenous source of sphingomyelinase (ASM) |
| Indication | Treatment of non-central nervous system manifestations of sphingomyelinase deficiency (ASMD) in adult and pediatric patients |
| Comparative agent – Therapeutic interchange? | None |
| Dosage forms/strengths. | Lyophilized powder for reconstitution: 20 mg of olipudase alfa-rpcp |
| Common Dose/sig | Adults: Recommended starting dose is 0.1 mg/kg as an IV infusion<br>Pediatrics: Recommended starting dose is 0.03 mg/kg as an IV infusion<br>Titrate to a maintenance dose of 3 mg/kg over an 8-9 week escalation phase (see prescribing information). Administered as an IV infusion every 2 weeks. |
| DEA Schedule | Not controlled |
| Date of market availability | Currently unknown |
| Similar Medication Names | Oliceridine |
| **Clinical Use Evaluation** | |
| Common Adverse Effects | Adults (≥10%): Headache, cough, diarrhea, hypotension, ocular hyperemia<br>Pediatrics (≥20%): Pyrexia, cough, diarrhea, rhinitis, abdominal pain, vomiting, headache, urticaria, nausea, rash, arthralgia, pruritis, fatigue, and pharyngitis |
| Severe Adverse Effects | Hypersensitivity reactions, infusion related reactions, elevated transaminase level |
| Severe Drug-Drug Interactions | None known |
| Severe Drug-Food Interactions | None known |
| Important Labs Values to assess prior to order entry or at point of clinical follow up. | Baseline transaminase levels in all patients within 1 month prior to initiation<br>Verify pregnancy status in females of reproductive potential |
| Used in Pediatric Areas | Approved in pediatrics (0-17 years) |
| Renal or Hepatic Dosing | No dosage adjustments required |

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| Critical Issues (i.e., contraindications, warnings, etc) that should be emphasized | Contraindications:<br>- None<br>Warnings/Precautions:<br>- Hypersensitivity reactions including anaphylaxis<br>- Infusion-associated reactions<br>- Elevated transaminases<br>- Risk of fetal malformations |
| Special administration techniques or considerations | Consider pretreating with antihistamines, antipyretics, and/or corticosteroids. Immediately discontinue for severe hypersensitivity reaction or severe infusion-associated reaction. Temporarily hold or slow infusion rate for mild to moderate reactions.<br>Administer using an in-line low protein-binding 0.2 micron filter. Infusion rate can be increased per steps in prescribing information in the absence of an infusion-associated reaction. Home infusion under the supervision of a healthcare provider may be considered for patients on maintenance doses who are tolerating infusions. Dose and infusion rates should remain constant for home administration. |
| Prepared by | Darren Miguel and Brittney Kessel |
| Source | Xenpozyme (Olipudase alfa-rpcp) [prescribing information]. Genzyme Corp. August 2022 |