PharmNotes

Monthly Communications

August 2024

ACCREDITED
Pharmacy Benefit Management
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Drug Safety Alert Notification

The Drug Safety Communications are provided by the U.S. Food and Drug Administration and are intended to offer important information to patients and health care providers about new safety issues regarding certain medications. This helps prescribers and health care professionals be informed so that decisions regarding the treatment of patients are made accordingly.

No Drug Safety Alert Notification was released during August.

New FDA-Approved Drug Products

New Molecular Entity

Lazcluze™ (lazertinib) tablets, for oral use

Specialty

FDA-Approved Indication

In combination with amivantamab for the first-line treatment of adult patients with locally advanced or metastatic non-small cell lung cancer with epidermal growth factor receptor (EGFR) exon 19 deletions or exon 21 L858R substitution mutations, as detected by an FDA-approved test.

Dosage & Administration

240 mg orally once daily with or without food, given in combination with amivantamab.

Dosage Forms & Strengths

Tablets: 80mg and 240mg

Contraindications

None

Common Adverse Reactions

Rash, nail toxicity, infusion-related reaction (amivantamab), musculoskeletal pain, edema, stomatitis, VTE, paresthesia, fatigue, diarrhea, constipation, COVID-19, hemorrhage, dry skin, decreased appetite, pruritus, nausea, ocular toxicity, decreased albumin, decreased sodium, increased ALT, decreased potassium, decreased hemoglobin, increased AST, increased GGT, and increased magnesium.

Warnings & Precautions

- Venous Thromboembolic Events (VTE)
- Interstitial Lung Disease (ILD) / Pneumonitis
- Dermatologic Adverse Reactions
- Ocular Adverse Reactions
- Embryo-Fetal Toxicity

Drug Interactions

- Strong and moderate CYP3A4 inducers

Use in Specific Populations

- Lactation: Advise not to breastfeed

Clinical Studies

The FDA approval is based on positive results from the Phase 3 MARIPOSA study, which showed Rybrevant™ plus Lazcluze™ reduced the risk of disease progression or death by 30 percent compared to osimertinib (median progression-free survival was 23.7 months versus 16.6 months). The median duration of response was nine months longer with Rybrevant™ plus Lazcluze™ versus osimertinib (25.8 months versus 16.7 months), a secondary endpoint of the study.

Place in Therapy

Lazcluse™ in combination with Rybervant™ becomes the first and only multitargeted, chemotherapy-free combination regimen with demonstrated superiority versus osimertinib approved for the first-line treatment of patients with EGFR-mutated NSCLC. Rybrevant™ plus Lazcluze™ is the only multitargeted regimen targeting both the common EGFR mutations directly.

New FDA-Approved Drug Products

New Molecular Entity

Livdelzi™ (seladelpar lysine) capsules, for oral use

Orphan | Specialty

FDA-Approved Indication

For the treatment of primary biliary cholangitis in combination with ursodeoxycholic acid (UDCA) in adults who have an inadequate response to UDCA, or as monotherapy in patients unable to tolerate UDCA.

Dosage & Administration

10 mg orally once daily.

Dosage Forms & Strengths

Capsules: 10 mg

Contraindications

None

Common Adverse Reactions

Headache, abdominal pain, nausea, abdominal distension, and dizziness.

Warnings & Precautions

- Fractures
- Liver Test Abnormalities
- Biliary Obstruction

Drug Interactions

- OAT3 Inhibitors
- Strong CYP2C9
- Dual Moderate CYP2C9 and Moderate to Strong CYP3A4 Inhibitors
- CYP2C9 Poor Metabolizers using Moderate to Strong CYP3A4 Inhibitors
- BCRP Inhibitors
- Bile Acid Sequestrants

Use in Specific Populations

- Hepatic Impairment: Monitor patients with cirrhosis for evidence of decompensation.

Clinical Studies

The FDA approved Livdelzi™ under accelerated approval based on a reduction of ALP. The phase 3 RESPONSE study hit its primary endpoint as 62% of patients on Livdelzi achieved composite biochemical response at 12 months, versus 20% on placebo (treatment difference, 42% [95% CI, 28-53]). Normalization of ALP at 12 months (key secondary endpoint) was observed in 25% of seladelpar-treated patients and in none of the patients who received placebo (treatment difference, 25% [95% CI, 18-33]).

Place in Therapy

Livdelzi™ is a first-in-class oral, selective peroxisome proliferator-activated receptor-delta agonist. Livdelzi™ would be placed as a second-line treatment for adults with PBC. First-line therapy is ursodeoxycholic acid (UDCA). For patients that are not responsive to UDCA, Livdelzi™ can be added to their regimen. For others who can't tolerate UDCA, Livdelzi™ can be taken as a monotherapy.

New FDA-Approved Drug Products

New Molecular Entity

Lymphir™ (denileukon diftitox-cxdl) injection, for intravenous use

Orphan | Specialty

FDA-Approved Indication

For the treatment of adult patients with relapsed or refractory Stage I-III cutaneous T-cell lymphoma (CTCL) after at least one prior systemic therapy.

Dosage & Administration

9 mcg/kg/day based on actual body weight administered as an intravenous infusion on Days 1 through 5 of a 21-day cycle.

Dosage Forms & Strengths

For injection: 300 mcg lyophilized cake in a single-dose vial.

Contraindications

None

Common Adverse Reactions

Increased transaminases, albumin decreased, nausea, edema, hemoglobin decreased, fatigue, musculoskeletal pain, rash, chills, constipation, pyrexia, and capillary leak syndrome.

Warnings & Precautions

- ***BBW***: Capillary Leak Syndrome
- Visual Impairment
- Infiusion – Related Reactions
- Hepatotoxicity
- Embryo – Fetal Toxicity

Use in Specific Populations

- Lactation: Advise not to breastfeed.

Clinical Studies

The approval of Lymphir™ is based on results from the Phase 3 Pivotal Study 302 of CTCL patients who had previously received at least one systemic treatment. Actual study patients received a median of 4 prior anticancer therapies. The primary efficacy population includes 69 patients with relapsed or refractory stage I-III CTCL. The primary efficacy outcome measure was Objective Response Rate (ORR). The ORR was 36.2%, (95% CI: 25.0-48.7), with 8.7% achieving a Complete Response. Among responders, the median follow-up for duration of response was 6.5 months.

Place in Therapy

CTCL is a type of cutaneous non-Hodgkin lymphoma that comes in a variety of forms and is the most common type of cutaneous lymphoma. Lymphir™ is the only CTCL therapy that targets the interleukin-2 (IL-2) receptor found on malignant T-cells and T-regs.

New FDA-Approved Drug Products

New Molecular Entity

Nemluvio™ (nemolizumab) injection, for subcutaneous use

Specialty

FDA-Approved Indication

For the treatment of adults with prurigo nodularis.

Dosage & Administration

- *Adult Patients Weighing Less Than 90kg*: Initial dose of 60 mg (two 30 mg injections), followed by 30 mg given every 4 weeks.
- *Adult Patients Weighing 90kg or More*: Initial dose of 60 mg (two 30 mg injections), followed by 60 mg given every 4 weeks.

Dosage Forms & Strengths

For injection: single-dose prefilled dual chamber pen containing 30 mg of nemolizumab-ilto lyophilized powder and diluent, water for injection.

Contraindications

Known hypersensitivity to nemolizumab-ilto or to any of the excipients in Nemluvio™.

Common Adverse Reactions

Headache, dermatitis atopic, eczema, and eczema nummular.

Warnings & Precautions

- Hypersensitivity
- Vaccinations

Drug Interactions

- Cytochrome P450 (CYP450) Substrates

Clinical Studies

The approval is based on positive results from the phase III OLYMPIA clinical trials in which Nemluvio™ demonstrated significant and clinically meaningful improvements in itch and skin nodules at Week 16, with rapid reductions in itch observed as early as Week 4. For the primary endpoint, 56% and 49% of patients treated with nemolizumab in OLYMPIA 1 and 2 respectively, achieved at least a 4-point reduction in itch intensity at week 16, as measured by the Peak-Pruritus Numerical Rating Scale, compared to 16% in both placebo groups ($p<0.001$).

Place in Therapy

Nemluvio™ is a novel interleukin-31 (IL-31) receptor antagonist. IL-31 is a naturally occurring cytokine that is involved in pruritus, inflammation, epidermal dysregulation, and fibrosis. Nemluvio™ is the first FDA-approved drug that targets IL-31 and the second drug approved to treat prurigo nodularis. Dupixent™ was approved to treat prurigo nodularis in 2022.

New FDA-Approved Drug Products

New Molecular Entity

Niktimvo™ (axatilimab-csfr) injection, for intravenous use

Orphan | Specialty

FDA-Approved Indication

For the treatment of chronic graft-versus-host disease (cGVHD) after failure of at least two prior lines of systemic therapy in adult and pediatric patients weighing at least 40 kg.

Dosage & Administration

0.3 mg/kg (maximum 35 mg) every 2 weeks in adult and pediatric patients weighing 40 kg and above.

Dosage Forms & Strengths

Injection: 50 mg/mL solution in a single-dose vial

Contraindications

None

Common Adverse Reactions

Increased AST, infection (pathogen unspecified), increased ALT, decreased phosphate, decreased hemoglobin, viral infection, increased GGT, musculoskeletal pain, increased lipase, fatigue, increased amylase, increased calcium, increased CPK, increased ALP, nausea, headache, diarrhea, cough, bacterial infection, pyrexia, and dyspnea.

Warnings & Precautions

- Infusion-Related Reactions
- Embryo-Fetal Toxicity

Use in Specific Populations

- Lactation: Advise not to breastfeed.

Clinical Studies

The FDA approval was based on data from the global AGAVE-201 study evaluating the safety and efficacy of Niktimvo™ in 241 adults who had previously failed at least two prior lines of systemic therapies. The primary endpoint was overall response rate in the first six cycles. The ORR after six cycles was 82%. The durability of response was maintained in 53%–60% of patients at 12 months.

Place in Therapy

Niktimvo™ represents a new mechanism of action for patients who fail to respond to other immunosuppressive therapies for cGVHD. Niktimvo™ will directly compete with Rezurock™ for patients with cGVHD refractory to previous lines of therapy. Other approved agents for cGVHD include Jakafi™ and Imbruvica™.

New FDA-Approved Drug Products

New Molecular Entity

Tecelra™ (afamitresgene autoleucel) suspension, for intravenous infusion

Orphan | Specialty

FDA-Approved Indication

For the treatments of adults with unresectable or metastatic synovial sarcoma who have received prior chemotherapy, are HLA-A*02:01P, -A*02:02P, -A*02:03P, or -A*02:06P positive and whose tumor expresses the MAGE-A4 antigen as determined by FDA-approved or cleared companion diagnostic devices.

Dosage & Administration

Between 2.68 x 10^9 to 10 x 10^9 MAGE-A4 T cell receptor (TCR) positive T cells.

Dosage Forms & Strengths

A cell suspension for intravenous infusion provided in one or more infusion bag(s) containing 2.68 x 10^9 to 10 x 10^9 MAGE-A4 TCR positive T cells

Contraindications

Do not use Tecelra™ in adults who are heterozygous or homozygous for HLA-A*02:05P.

Common Adverse Reactions

Cytokine release syndrome, nausea, vomiting, fatigue, infections, pyrexia, constipation, dyspnea, abdominal pain, non-cardiac chest pain, decreased appetite, tachycardia, back pain, hypotension, diarrhea, and edema.

Warnings & Precautions

- ***BBW***: Cytokine Release Syndrome
- Immune Effector Cell-Associated Neurotoxicity Syndrome (ICANS)
- Prolonged Severe Cytopenia
- Infections
- Secondary Malignancies
- Hypersensitivity Reactions
- Effects on Ability to Drive and Use Machines

Clinical Studies

The approval of Tecelra™ was based on data from Cohort 1 of the Phase 2 SPEARHEAD-1 trial which included an efficacy analysis population of 44 patients with previously treated, inoperable or metastatic synovial sarcoma. Tecelra™ demonstrated a 43.2% overall response rate (ORR), a 4.5% complete response (CR) rate, and a median duration of response (DOR) of 6 months.

Place in Therapy

Tecelra™ is the first FDA-approved T-cell receptor (TCR) gene therapy and the second cell therapy for a solid tumor cancer. Prior to Tecelra™, patients with synovial sarcoma only had chemotherapy as a subsequent treatment option after surgery and first-line chemotherapy

New FDA-Approved Drug Products

New Molecular Entity

Voranigo™ (vorasidenib) tablets, for oral use

Orphan | Specialty

FDA-Approved Indication

For the treatment of adult and pediatric patients 12 years and older with Grade 2 astrocytoma or oligodendroglioma with a susceptible IDH1 or IDH2 mutation following surgery including biopsy, sub-total resection, or gross total resection.

Dosage & Administration

Recommended dosage in adults:

- 40 mg orally once daily

Recommended dosage in pediatric patients 12 years of age and older based on body weight:

- ≥40 kg: 40 mg orally once daily
- <40kg: 20mg orally once daily

Dosage Forms & Strengths

Tablets: 10 mg and 40 mg

Contraindications

None

Common Adverse Reactions

Fatigue, headache, COVID-19, musculoskeletal pain, diarrhea, nausea, and seizure.

Warnings & Precautions

- Hepatotoxicity
- Embryo-Fetal Toxicity

Drug Interactions

- CYP1A2 Inhibitors
- CYP1A2 Inducers
- Certain CYP3A Substrates
- Hormonal Contraception

Use in Specific Populations

- Lactation: Advise not to breastfeed
- Infertility: May impair fertility in males and females.

Clinical Studies

The approval of Voranigo™ is supported by results from the pivotal Phase 3 INDIGO clinical trial. This trial investigated the efficacy of Voranigo™ compared to a placebo in patients with residual or recurrent Grade 2 glioma with an IDH mutation, who have undergone surgical treatment as their sole therapy. The results showed that Voranigo™ significantly extended progression free survival and time to next intervention, when compared to placebo. The primary endpoint of the study was progression-free survival (PFS). The median PFS times in patients treated with Voranigo™ and placebo were 27.7 months and 11.1 months respectively. Additionally, Voranigo™ showed a reduction in tumor volume by an average of 2.5% every six months, whereas the tumor volume in patients assigned to the placebo arm increased by an average of 13.9% over the same period.

Place in Therapy

Astrocytoma and oligodendroglioma are two types of gliomas, which are tumors that develop from cells within the central nervous system (CNS). Voranigo™ is yet to be incorporated into NCCN guidelines.

New FDA-Approved Drug Products

New Molecular Entity

Yorvipath™ (patopegteriparatide) injection, for subcutaneous use

Orphan | Specialty

FDA-Approved Indication

For the treatment of hypoparathyroidism in adults.

Dosage & Administration

Maximum dose is 30 mcg subcutaneously once daily (dosage should be individualized based on serum calcium).

Dosage Forms & Strengths

Injection: single-patient-use prefilled pen

- 168 mcg/0.56 mL pen, labeled doses of 6, 9, or 12 mcg
- 294 mcg/0.98 mL pen, labeled doses of 15, 18, or 21 mcg
- 420 mcg/1.4 mL pen, labeled doses of 24, 27, or 30 mcg

Contraindications

Severe hypersensitivity to palopegteriparatide or any components of Yorvipath™.

Common Adverse Reactions

Injection site reactions, vasodilatory signs and symptoms, headache, diarrhea, back pain, hypercalcemia, and oropharyngeal pain.

Warnings & Precautions

- Unintended Changes in Serum Calcium Levels Related to Number of Daily Injections
- Serious Hypercalcemia and Hypocalcemia
- Potential Risk of Osteosarcoma
- Orthostatic Hypotension
- Digoxin Toxicity

Drug Interactions

- Drugs Known to Affect Calcium

Use in Specific Populations

- Lactation: Monitor breast-fed infants for symptoms of hypercalcemia or hypocalcemia.

Clinical Studies

The approval was supported by results from two studies: the Phase 3 PaTHway trial and the Phase 2 PaTH Forward trial, which both demonstrated reductions in disease-specific physical and cognitive symptoms and quality-of-life improvement. The majority of patients who received Yorvipath in the trials achieved normalization of serum calcium and independence from conventional therapy at week 26.

Place in Therapy

Management of chronic HP includes oral calcium and vitamin D supplementation. PTH replacement therapy is often added for patients who are unable to maintain stable serum and urinary calcium levels with calcium and vitamin D supplementation alone. Yorvipath™ is the second FDA-approved PTH analog for the treatment of hypoparathyroidism after Natpara™ was in 2015. However, Natpara™ has been recalled since 2019, and will be removed from the market entirely by the end of 2024.

New FDA-Approved Drug Products

New Biosimilar Product

Enzeevu™ (aflibercept-abzv) injection, for intravitreal use

Specialty

FDA-Approved Indication

For the treatment of patients with Neovascular (Wet) Age-Related Macular Degeneration (AMD).

Dosage & Administration

mg (0.05 mL of 40 mg/mL solution) administered by intravitreal injection every 4 weeks (approximately every 28 days) for the first 3 months, followed by 2 mg (0.05 mL of 40 mg/mL solution) via intravitreal injection once every 8 weeks.

Dosage Forms & Strengths

- Injection: 2 mg (0.05 mL of 40 mg/mL) solution in a single-dose pre-filled syringe
- Injection: 2 mg (0.05 mL of 40 mg/mL) solution in a single-dose vial

Contraindications

- Ocular or periocular infection
- Active intraocular inflammation
- Hypersensitivity

Common Adverse Reactions

Conjunctival hemorrhage, eye pain, cataract, vitreous detachment, vitreous floaters, and intraocular pressure increased.

Warnings & Precautions

- Endophthalmitis, retinal detachments, and retinal vasculitis with or without occlusion may occur following intravitreal injections.
- Increases in intraocular pressure have been seen within 60 minutes of an intravitreal injection.
- Potential risk of arterial thromboembolic events following intravitreal use of VEGF inhibitors.

Clinical Studies

The FDA granted approval based on the totality of evidence, including comprehensive analytical and preclinical in vitro study data, as well as clinical data from the Mylight study.

Place in Therapy

Enzeevu™ is the fourth approved biosimilar of Eylea™. To gain any significant market share, launch pricing for this biosimilar will need to represent a significant discount to the brand's price.

New FDA-Approved Drug Products

New Biosimilar Product

Pavblu™ (aflibercept-ayyh) injection, for intravitreal use

Specialty

FDA-Approved Indication

For the treatment of patients with [1] Neovascular (Wet) Age-Related Macular Degeneration (AMD); [2] Macular Edema Following Retinal Vein Occlusion (RVO); [3] Diabetic Macular Edema (DME); [4] Diabetic Retinopathy (DR).

Dosage & Administration

2mg (0.05 mL of 40mg/mL solution) administered by intravitreal injection every 4 to 12 weeks, depending on the indication.

Dosage Forms & Strengths

- Injection: 2 mg (0.05 mL of 40 mg/mL) solution in a single-dose prefilled syringe
- Injection: 2 mg (0.05 mL of 40 mg/mL) solution in a single-dose vial

Contraindications

- Ocular or periocular infection
- Active intraocular inflammation
- Hypersensitivity

Common Adverse Reactions

Conjunctival hemorrhage, eye pain, cataract, vitreous detachment, vitreous floaters, and intraocular pressure increased.

Warnings & Precautions

- Endophthalmitis, retinal detachments, and retinal vasculitis with or without occlusion may occur following intravitreal injections.
- Increases in intraocular pressure have been seen within 60 minutes of an intravitreal injection
- Potential risk of arterial thromboembolic events following intravitreal use of VEGF inhibitors.

Clinical Studies

The FDA granted approval based on the totality of evidence, including comprehensive analytical and preclinical in vitro study data,

Place in Therapy

Pavblu™ is the fifth approved biosimilar of Eylea™ that does not have an interchangeability designation. Unlike Eylea™, Pavblu™ is not indicated for the treatment of patients with retinopathy of prematurity.

New FDA-Approved Drug Products

New Formulations, Combinations, and Line Extensions

Crexont™ (carbidopa levodopa) extended-release capsules, for oral use

FDA-Approved Indication

For the treatment of Parkinson's disease, post-encephalitic parkinsonism, and parkinsonism that may follow carbon monoxide intoxication or manganese intoxication in adults.

Dosage & Administration

35 mg carbidopa/ 140 mg levodopa taken orally twice daily for the first three days. Thereafter, dosage may be increased gradually as needed to a maximum daily dosage of 525 mg carbidopa/2100 mg levodopa divided up to four times daily.

Dosage Forms & Strengths

Extended-Release Capsules: Carbidopa and Levodopa 35 mg / 140 mg, 52.5 mg / 210 mg, 70 mg / 280 mg, 87. 5 mg / 350 mg

Contraindications

Nonselective MAO inhibitors.

Common Adverse Reactions

Nausea and anxiety.

Warnings & Precautions

- May cause falling asleep during activities of daily living.
- Avoid sudden discontinuation or rapid dose reduction to reduce the risk of withdrawal-emergent hyperpyrexia and confusion
- Cardiovascular Events
- Hallucinations/Psychosis may occur
- Impulse Control Disorders
- May cause or exacerbate dyskinesia

Drug Interactions

- Iron salts and dopamine D2 antagonists, including metoclopramide.

Use in Specific Population

- Pregnancy: Based on animal data, may cause fetal harm.

Clinical Studies

The efficacy of Crexont™ was established in an active-controlled study in patients with Parkinson's disease. The study consisted of a 3-week dose adjustment period of immediate-release carbidopa/levodopa treatment prior to a 4-week conversion period to Crexont™, which was followed by a 13-week, double-blind, double-dummy, randomized period comparing Crexont™ to immediate release carbidopa/levodopa. The primary efficacy measure was the mean change from baseline in "On" time without troublesome dyskinesia in hours per day at the end of the study (week 20 or at early termination). Crexont provided 1.55 more hours of "Good On" time per dose vs IR CD-LD, representing a 70% increase.

Place in Therapy

Initial treatments often include low-dose carbidopa/levodopa or a dopamine agonist (i.e., pramipexole, ropinirole). Efficacy of these therapies wanes over time because Parkinson's is a progressive disease. Crexont is an oral formulation of carbidopa/levodopa (CD/LD) that combines both immediate-release granules and extended-release pellets (similar to Rytary™).

New FDA-Approved Drug Products

New Formulations, Combinations, and Line Extensions

Neffy™ (epinephrine) nasal spray

FDA-Approved Indication

For emergency treatment of type I allergic reactions, including anaphylaxis, in adult and pediatric patients who weigh 30 kg or greater.

Dosage & Administration

One spray of Neffy™ (2 mg of epinephrine) administered into one nostril. In absence of clinical improvement or if symptoms worsen after initial treatment, administer a second dose of Neffy™ in the same nostril with a new nasal spray starting 5 minutes after the first dose.

Dosage Forms & Strengths

Nasal spray: 2 mg/0.1 mL of epinephrine per spray

Contraindications

None

Warnings & Precautions

- Absorption of Neffy™ may be affected by underlying structural and anatomical nasal conditions
- Administer with caution in patients with heart disease; may aggravate angina pectoris or produce ventricular arrhythmias.
- May aggravate certain coexisting conditions.
- The presence of sulfite in this product should not deter use.

Common Adverse Reactions

Throat irritation, intranasal paresthesia, headache, nasal discomfort, feeling jittery, paresthesia, fatigue, tremor, rhinorrhea, nasal pruritus, sneezing, abdominal pain, gingival pain, hypoesthesia oral, nasal congestion, dizziness, nausea, and vomiting.

Drug Interactions

- May alter nasal mucosa for up to 2 weeks after administration and increase systemic absorption of nasal products
- Cardiac glycosides, diuretics or anti-arrhythmic

Drug Interactions – Cont.

- Tricyclic antidepressants, monoamine oxidase inhibitors, levothyroxine sodium, certain antihistamines, and catechol-Omethyl transferase inhibitors may potentiate effects of epinephrine
- Alpha-adrenergic blocking drugs antagonize vasoconstricting and hypertensive effects of epinephrine.
- Ergot alkaloids may reverse the pressor effects of epinephrine
- Beta-adrenergic blocking drugs antagonize cardiostimulating and bronchodilating effects of epinephrine.

Use in Specific Populations

- Elderly patients may be at greater risk of developing adverse reactions.

Clinical Studies

The approval of Neffy™ is based on data from five primary registration studies with a 2 mg intranasal dose of epinephrine. Neffy™ met all defined clinical endpoints and its pharmacokinetic (PK) and pharmacodynamic (PD) data were within the range of approved epinephrine injection products. These data included single- and twice-dosed studies in healthy adults, with self-administration and caregiver administration in Type I allergy patients, in pediatric patients ≥30 kg (66 lbs.) as well as in those with allergic rhinitis (congestion and runny nose).

Place in Therapy

Epinephrine is used as a first-line treatment for anaphylaxis and should be administered immediately upon the anaphylactic reaction. Prior to the approval of Neffy™, epinephrine was only available as an intramuscular (IM) injection via an auto-injector or prefilled syringe (PFS). Neffy™ is the first epinephrine product for the treatment of anaphylaxis that is not administered by injection.

New FDA-Approved Drug Products

New Formulations, Combinations, and Line Extensions

Zurnai™ (nalmefene) injection for intramuscular or subcutaneous use

FDA-Approved Indication

For the emergency treatment of known or suspected opioid overdose induced by natural or synthetic opioids in adults and pediatric patients aged 12 years and older, as manifested by respiratory and/or central nervous system depression.

Dosage & Administration

Only for intramuscular and subcutaneous use. Administer additional doses using a new autoinjector for each dose. If the patient does not respond or responds and then relapses into respiratory depression, additional doses may be given every 2 to 5 minutes until emergency medical assistance arrives.

Dosage Forms & Strengths

Injection: 1.5 mg nalmefene base/0.5 mL in a prefilled, single dose autoinjector

Contraindications

Hypersensitivity to nalmefene hydrochloride or to any other ingredients in Zurnai™

Warnings & Precautions

- Risk of Recurrent Respiratory and CNS Depression
- Risk of Limited Efficacy with Partial Agonists or Mixed Agonists/Antagonists
- Precipitation of Severe Opioid Withdrawal
- Risk of Cardiovascular (CV) Effects
- Risk of Opioid Overdose from Attempts to Overcome the Blockade

Common Adverse Reactions

Nausea, headache, dizziness chills, vomiting, allodynia, palpitations, tinnitus, ear discomfort, feeling abnormal, burning sensation, hot flush, and irritability.

Clinical Studies

The approval of Zurnai™ is supported by pharmacokinetic and pharmacodynamic studies of Zurnai™ in healthy subjects in a normal state and under steady state opioid agonism.

Place in Therapy

Nalmefene and naloxone are two available options to reverse opioid overdose. Zurnai™ is the first auto-injector containing nalmefene, which is a long-acting opioid antagonist.

New FDA-Approved Drug Products

New Formulations, Combinations, and Line Extensions

Prevymis™ (letermovir) oral pellets

Orphan | Specialty

FDA-Approved Indication

- Indicated for prophylaxis of cytomegalovirus (CMV) infection and disease in adult and pediatric patients 6 months of age and older and weighting at least 6kg who are cmv-seropositive recipients [R+] of an allogeneic hematopoietic stem cell transplant (HSCT).
- Indicated for prophylaxis of CMV disease in adult and pediatric patients 12 years of age and older and weighing at least 40kg who are kidney transplant recipients at risk (donor CMV seropositive / recipient CMV seronegative [D+/R-]).

Dosage & Administration

- Recommended Adult Patient Dosage:
  - HSCT: 480 mg administered once daily orally or as an IV infusion through 100 (up to 200 days) days post-HSCT.
  - Kidney Transplant: 480 mg administered once daily orally or as an IV infusion through 200 days post-transplant
- Pediatric patients 6 months to less 12 years: Dosing is based on weight (refer to package insert).

Dosage Forms & Strengths

- Tablet: 240 mg, 480 mg
- Oral Pellets: 20 mg or 120 mg per packet
- Injection: 240 mg/12 mL (20 mg/mL) or 480 mg/24 mL (20 mg/mL) in a single-dose vial

Contraindications

- Pimozide
- Ergot Alkaloids
- Pitavastin and simvastatin when co-administered with cyclosporine

Warnings & Precautions

- Risk of Adverse Reactions or Reduced Therapeutic Effect Due to Drug Interactions
- Risks Associated with Hydroxypropyl Betadex Excipient in Intravenous Formulation

Common Adverse Reactions

Nausea, diarrhea, vomiting, peripheral edema, cough, headache, fatigue, and abdominal pain.

Use in Specific Population

- Hepatic Impairment: not recommended for patients with severe (Child-Pugh C) hepatic impairment.

Place in Therapy

For most people, CMV infection is not a serious health problem. However, certain groups are at high risk for serious complications from CMV infection. Antiviral treatment is used for people with compromised immune systems who have life-threatening illnesses due to CMV infection.

Other notable new approvals include:

Bortezomib - injection for subcutaneous use

- For the treatment of adult patients with multiple myeloma and for the treatment of adult patients with mantle cell lymphoma.

New First-Time Generic Approvals

First-Time Generics are the first generic forms of brand name drugs. The generic version is formulated to work in the same way as the brand-name product and provides the same clinical benefit.

Product	Manufacturer	Generic For	Therapeutic Class	Indication(s)
Lofexidine Hydrochloride Tablets 0.18mg (base)	Indoco Remedies Ltd	Lucemyra	Agents for Chemical Dependency	Opiate Withdrawal
Trametinib Dimethyl Sulfoxide Tablets	Novugen Pharma (USA) LLC	Mekinist	Antineoplastic Enzyme Inhibitors	Cancer
Riluzole Oral Suspension 50mg/10ml	Alkem Laboratories Ltd	Tiglutik	Neuromuscular Agents	Amyotrophic Lateral Sclerosis
Methylnatrexone Bromide Subcutaneous Solution 8mg/0.4ml and 12mg/0.6ml	Actavis Pharma, Inc	Relistor	Gastrointestinal Agents – Misc.	Opioid – Induced Constipation
Amantadine Hydrochloride Extended-Release Capsules 68.5mg (base)	Zydus Pharmaceuticals (USA) Inc	Gocovri	Antiparkinson and Related Therapy Agents	Parkinson's Disease

New FDA-Approved Indications for Existing Drugs

The following table contains drugs that have gained FDA approval for the treatment of additional diseases or conditions.

Drug Name and Manufacturer	Previous Indication(s)	New Indication
Furoscix (furosemide) From: scPharmaceuticals	For the treatment of congestion due to fluid overload in adult patients with chronic heart failure NYHA class II and III.	For the treatment of congestion due to fluid overload in adult patients with chronic heart failure NYHA class II, III and IV
Fabhalta (iptacopan) From: Novartis	For the treatment of adults with paroxysmal nocturnal hemoglobinuria (PNH)	For the reduction of proteinuria in primary IGA nephropathy (IGAN)
Imfinzi (durvalumab) From: AstraZeneca LTD	[1] For the treatment of adult patients with unresectable, stage III non-small cell lung cancer (NSCLC) whose disease has not progressed following concurrent platinum-based chemotherapy and radiation therapy; [2] Indicated in combination with tremelimumab-actl and platinum-based chemotherapy, for the treatment of adult patients with metastatic non-small cell lung cancer (NSCLC) with no sensitizing epidermal growth factor receptor (EGFR) mutations or anaplastic lymphoma kinase (ALK) genomic tumor aberrations; [3] in combination with etoposide and either carboplatin or cisplatin, as first-line treatment of adult patients with extensive-stage small cell lung cancer (ES-SCLC); [4] In combination with gemcitabine and cisplatin, as treatment of adult patients with locally advanced or metastatic biliary tract cancer (BTC); [5] In combination with tremelimumab -actl, for the treatment of adult patients with unresectable hepatocellular carcinoma (UHCC); [6] Indicated in combination with carboplatin and	For the treatment of resectable non-small cell lung cancer before and after surgery

	paclitaxel followed by Imfinzi as a single agent, for the treatment of adult patients with primary advanced or recurrent endometrial cancer that is mismatch repair deficient (DMMR)	

Pipeline

The goals of the NDA (or BLA) are to provide enough information to permit FDA approval of a new pharmaceutical for sale and marketing in the U.S.

Drug Name and Manufacturer	Indication(s)	Additional Information	Impact
DCCR (diazoxide choline) extended-release tablets *From: Soleno Therapeutics, Inc*	For the treatment of patients with Prader-Willi syndrome who have hyperphagia	NDA accepted	Moderate
Elinzanetant *From: Bayer*	For the treatment of moderate to severe vasomotor symptoms (VMS, also known as hot flashes) associated with menopause	NDA submitted	Low
GMRx2 (amlodipine, indapamide and telmisartan) *From: George Medicines*	For the treatment for hypertension, including initiation of treatment	NDA submitted	Low
LNZ100 (aceclidine) *From: LENZ Therapeutics, Inc.*	For the treatment for hypertension, including initiation of treatment	NDA submitted	Low
Nipocalimab *From: Johnson & Johnson*	For the treatment of people living with generalized myasthenia gravis (gMG)	BLA submitted	High