

PharmNOTES

Summary about new FDA-approved products, new indications, first-time generics, and WHAT IS IN THE PIPELINE.

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New FD	A Approv	ed Produ	cts															
0	rladeyo™	(berotrals	tat)															
к	lisyri™ (tirl	oanibulin)																
N	largenza™	(margetu	ximab-cm	nkb)														
R	iabni™ (rit	uximab-aı	rrx)															
0	rgovyx™ (relugolix)																
G	emtesa™	vibegron)	1															
New FD	A Approv	ed Formu	lations, D	Dosage Fo	orms, Com	nbination	Products	and Othe	er Differe	nces								
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NEWS

Drug issue	Date			Details 🔹												
Emergency use authorization for first COVID-19 vaccine	12/11	/2020		On December 11, 2 for the prevention in individuals 16 ye	of coronav	virus diseas	se 2019 (0	COVID-19)	caused b	y severe	acute res	piratory	syndrome	coronavir	us 2 <mark>(</mark> SAR	S-CoV-2)
				Refer to the followi	ng sources	s for additi	onal impo	ortant det	ails:							
				1. <u>"Letter of auth</u> that must be n	orization" net, amon	– Includes g other im	details re portant ir	garding tl Iformation	ne scope (n.				. (4)			
				 "Fact Sheet for administration recipients/care 	details, co	ontraindica	ations, wa	rnings, re	ported ac	lverse rea	actions, ir	nformati	on to prov	ide to vaco	ine	
				information re 3. " <u>COVID-19 Vac</u>	garding th ccination P	e authorit	y for issua	ance of the Guidance	e EUA, an <mark>e</mark> " – Serve	d the full s as an in	EUA pres iterim pla	scribing i lybook fo	nformatio or state, te	n. rritorial, tr	ibal, and	local
				public health p jurisdictions.	orograms a	nd their p	artners o	n how to p	olan and c	peration	alize a va	ccinatio	n response	to COVID-	-19 withir	n their
				Additional informat (CDC) website.	ion can be	e found at	the <u>FDA's</u>	COVID-19) Vaccines	<u>portal</u> a	nd the Ce	nters for	r Disease a	nd Contro	l Preventi	ion
Emergency use authorization for	12/18	/2020		On December 18, vaccine for the pre	evention o	of coronav	irus disea	se 2019 (COVID-19) caused	l by seve	re acute	respirato	ry syndror	ne coron	avirus 2
second COVID-19 vaccine				(SARS-CoV-2) in ind States.	ividuals 18	3 years of a	age and o	lder. The I	EUA allow	s the Mo	derna CO	VID-19 v	vaccine to	be distribu	ited in the	e United
				Refer to the followi 1. "Letter of auth	-		onal impo	ortant det	ails:							
				2. " <u>Fact Sheet for</u> 3. " <u>COVID-19 Vac</u>	Healthca	re Provide										
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				Additional informat (CDC) website.		a lound at	the <u>FDA S</u>	<u>COVID-15</u>	Vaccines	<u>portal</u> a					^	
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DOSAGE FORMS AND STRENGTHS

Capsules: 150 mg, 110 mg.

Orphan status: Orphan

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hepatic impairment, reduce berotralstat dose.

DRUG NAME			<u>N</u>	/IANUF/	ACTURE	<u>R</u>				<u>A</u>	PPROVA	AL DATE		
Klisyri™ (tirbanibulin) Ointmer for topical use	nt,			Athen	ex, Inc.						12/14/	2020		
						<u>SA</u>	FETY F	ROFILE						
THERAPEUTIC CLASS Dermatological agent	CONTRAIN None. WARNING	S AND PF	RECAUTI			е ж	•	kerat been	<u>tric use:</u> osis in su establis	Safety a ubjects lo hed. Act	ind effect ess than 1 inic kerat	iveness fo 18 years o osis is not	f age ha a condi	ave not
FDA-APPROVE INDICATION(S) Klisyri [™] is a microtubule inhibitor indicated for the topical treatment of actinic keratosis of the face or scalp.		non <mark>a</mark> dve	ons <u>NS</u> erse reac	tions: loc		,		<u>Geria</u> effect years repor differ	tric use: tiveness of age c ted clini ences in	No over were ob or older a cal expe respons	all different served be and youn rience ha ses betwe	atric popu ences in sa etween su ger subjec s not iden een the elo ensitivity	afety or ubjects 6 tts, and utified derly an	65 other id
DOSAGE AND ADMINISTRATION The recommended dose is to apply on the face or scalp once daily for 5 consecutive	DRUG INTI No clinical potential o	studies e	valuatin		g interac	tion		indivi	duals ca	nnot be	ruled out	181. 181		
days using 1 single-dose packet per application.	•													
DOSAGE FORMS AND STRENGTHS Ointment: 1% tirbanibulin, single-dose packets.														
	e				-	×	• 1							
Orphan status: N/A											ph	ar	m	SIS



Anthracyclines: Patients who receive anthracyclines

increased risk of cardiac dysfunction. While this interaction has not been studied with margetuximab-

cmkb, clinical data from other HER2-directed antibodies warrants consideration. Avoid

monitor patient's cardiac function.

less than 4 months after stopping treatment may be at

anthracycline-based therapy for up to 4 months after

stopping. If concomitant use is unavoidable, closely

The recommended dose is 15 mg/kg as an intravenous infusion 120 minutes for the initial dose, then over a minimum of 30 minutes every 3 weeks for all subsequent doses.

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DOSAGE FORMS AND STRENGTHS

Injection: 250 mg/10 mL (25 mg/mL) in a single-dose vial.

Orphan status: N/A

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DRUG NAME	MANUFACTURER	APPROVAL DATE
Riabni™ (rituximab-arrx) Injection, for intravenous use	Amgen Inc.	12/17/2020
IERAPEUTIC CLASS	<u>SAFETY</u>	PROFILE
Antineoplastic agent DA-APPROVE INDICATION(S) abni™ is a CD20-directed cytolytic htibody indicated for the treatment of on-Hodgkin's Lymphoma (NHL), Chronic rmphocytic Leukemia (CLL), and ranulomatosis with Polyangiitis (GPA) Vegener's Granulomatosis) and icroscopic Polyangiitis (MPA). efer to full prescribing information for dditional details.	 CONTRAINDICATIONS None. WARNINGS AND PRECAUTIONS Boxed warning: Fatal infusion-related reactions, severe mucocutaneous reactions, hepatitis B virus reactivation and progressive multifocal leukoencephalopathy Tumor lysis syndrome Infections Cardiovascular adverse reactions Renal toxicity 	 DRUG INTERACTIONS Formal drug interaction studies have not been performed with rituximab products. USE IN SPECIFIC POPULATIONS Pregnancy: Can cause fetal harm. Females of reproductive potential: Pediatric use: Advise females of reproductive potential to use effective contraception during treatment and for at least 12 months after the last dose. Lactation: Advise not to breastfeed.
OSAGE AND ADMINISTRATION ne recommended dose varies per atient's diagnosis and BSA. It is to be dministered only by a healthcare rofessional. Refer to full prescribing formation for additional details.	 Bowel obstruction and perforation Immunization Embryo-fetal toxicity Concomitant use with other biologic agents and DMARDS in GPA and MPA <u>ADVERSE REACTIONS</u> Most common adverse reactions: NHL: infusion-related reactions, fever, lymphopenia, 	
SAGE FORMS AND STRENGTHS ction: 100 mg/10 mL (10 mg/mL) and mg/50 mL (10 mg/mL) solution in le-dose vials.	 chills, infection and asthenia. CLL: infusion-related reactions and neutropenia. GPA and MPA: infections, nausea, diarrhea, headache, muscle spasms, anemia, peripheral edema, infusion-related reactions 	
han status: N/A similar to Rituxan™ (rituximab)		POWERED BY ONEARK



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New FDA Approved Formulations, Dosage Forms, Combination Products and Other Differences

	name / facture		Thera class	apeutic	*	Indicati	on(s)	0	Date	- Co	ommen	ts 🔒						£ .
Suspens	teon) Ora ion / Van	nda	Centra system	l nervous 1 agent		disturban Syndrome	ces in Smi (SMS) in		12/01/2020	ta	etlioz LQ™ simelteon.						90	
Pharma	ceuticals	Inc.				patients 3 years of a		15		or	simelteon al capsule ake disord	was initial	ly approv	ed for the	e treatme	nt of non-	24-Hour	sleep-
											eatment of der.	f nighttime	e sleep di	sturbance	es in SMS	patients 1	.6 years o	of age and
	l se l	5		4			11			Or	phan statu	us: Orphar	۱				2	
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New FDA Approved Indications

Drug name / Manufacturer	Therapeutic class	Previous indication(s)	New indication(s)	Date
Hetlioz™ (tasimelteon) Capsules / Vanda Pharmaceuticals Inc.	Central nervous system agent	Treatment of Non-24-Hour Disorder in adults	Treatment of nighttime sleep disturbances associated with Smith-Magenis Syndrome (SMS) in patients 16 years of age and older	12/01/2020
Xolair™ (omalizumab) Subcutaneous Injection / Genentech, Inc.	Respiratory agent; Immunological agent	 Moderate to severe persistent asthma in patients 6 years of age and older Chronic idiopathic urticaria in adults and adolescents 12 years of age and older 	Nasal polyps in adult patients 18 years of age and older	12/01/2020
Gavreto™ (pralsetinib) Capsules / Genentech, Inc.	Antineoplastic agent	Treatment of adult patients with metastatic rearranged during transfection (RET) fusion- positive non-small cell lung cancer (NSCLC) as detected by an FDA approved test	Treatment of adult and pediatric patients 12 years of age and older with advanced or metastatic rearranged during transfection (RET)-mutant medullary thyroid cancer (MTC) who require systemic therapy, or with advanced or metastatic RET fusion-positive thyroid cancer who require systemic therapy and who are radioactive iodine-refractory (if radioactive iodine is appropriate)	12/01/2020
Saxenda™ (liraglutide) Injection / Novo Nordisk	Endocrine and metabolic agent	Treatment of obesity	Patient population altered: To include treatment of obesity in adolescents (12–17 years) with a body weight above 60 kg and an initial body mass index (BMI) corresponding to 30 kg/m2 or greater for adults, as an adjunct to reduced-calorie meals and increased physical activity	12/04/2020
Benlysta™ (belimumab) Injection / Human Genome Sciences, Inc. and GlaxoSmithKline	Immunological agent	Treatment of patients with systemic lupus erythematosus	Treatment of adult patients with active lupus nephritis (LN) who are receiving standard therapy	12/16/2020
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New FDA Approved Indications

Drug name / Manufacturer	Therapeutic class	Previous indication(s)	New indication(s)	Date
Kineret™ (anakinra) Injection / Sobi	Immunological agent	Treatment of rheumatoid arthritis and neonatal- onset multisystem inflammatory disease (NOMID)	Treatment of deficiency of IL-1 receptor antagonist (DIRA)	12/18/2020
Iclusig™ (ponatinib) Tablets / Ariad Pharmaceuticals, Inc.	Antineoplastic agent	Treatment of chronic myeloid leukemia (CML) and Philadelphia-chromosome positive acute lymphoblastic leukemia (Ph+ ALL)	For adult patients with chronic-phase (CP) CML with resistance or intolerance to at least two prior kinase inhibitors	12/18/2021
Xeomin™ (incobotulinumtoxinA) Injection / Merz Pharmaceuticals	Musculoskeletal agent	Treatment of cervical dystonia, blepharospasm, glabellar lines, upper limb spasticity, and excessive drooling	Patient population altered: Treatment of patients aged 2 years and older with chronic sialorrhea, or drooling	12/18/2021
Xpovio™ (selinexor) Tablets / Karyopharm Therapeutics Inc.	Antineoplastic agent	Treatment of patients adult patients with multiple myeloma (RRMM) and relapsed or refractory diffuse large B-cell lymphoma (DLBCL)	Treatment of adult patients with multiple myeloma who have received at least one prior therapy	12/18/2020
Tagrisso™ (osimertinib) Tablets / AstraZeneca	Antineoplastic agent	 Treatment of adult patients with metastatic EGFR T790M mutationpositive non-small cell lung cancer (NSCLC), as detected by an FDA- approved test, whose disease has progressed on or after EGFR TKI therapy First-line treatment of adult patients with metastatic NSCLC whose tumors have EGFR 	As adjuvant therapy after tumor resection in adult patients with non-small cell lung cancer (NSCLC) whose tumors have epidermal growth factor receptor (EGFR) exon 19 deletions or exon 21 L858R mutations, as detected by an FDA- approved test	12/20/2020
	i i i	exon 19 deletions or exon 21 L858R mutations, as detected by an FDA-approved test.		
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New First Time Generic Drug Approval

Drug	name /	' Manuf	facturer	≂ Ti	herapeı	utic Cla	ISS 🔉	a.	Indic	ation(s	5) .	21		1	Ger for:	neric	Date	*	
Efinaco	nazole To	pical Solu	tion 10% /	Ar	nti-infectiv	ve agent;	Antifungal		Onych	omycosis	due to de	ermatoph	yte, Toena	ails	Jublia	a	12/16	/2020	
Perrigo Teva Ph	Pharma I narmaceut	nternation ticals USA	nal DAC; , Inc.																
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Drug name / Manufacturer	Date Indication(s)	Comments	Impact
Infigratinib / BridgeBio Pharma, Inc.	12/01/2020 Treatment for: Cholangiocarcinoma of biliary tract	Infigratinib is an orally administered, ATP-competitive, FGFR1-3 tyrosine kinase inhibitor in development for the treatment of individuals with FGFR-driven conditions, including cholangiocarcinoma (bile duct cancer), urothelial carcinoma (bladder cancer) and achondroplasia.	High
		The FDA accepted the NDA for infigratinib.	
Ublituximab / TG Therapeutics, Inc.	12/01/2020 Treatment for: Chronic Lymphocytic Leukemia	Ublituximab (TG-1101) is an investigational glycoengineered anti- CD20 monoclonal antibody in development for the treatment of non- Hodgkin lymphoma (NHL), chronic lymphocytic leukemia (CLL), and relapsing forms of multiple sclerosis (RMS).	High
		TG Therapeutics, Inc. has initiated the rolling submission of a BLA for ublituximab.	
Amivantamab / Janssen	12/03/2020 Treatment for: Non-Small Cell Lung Cancer	Amivantamab is an investigational, fully-human EGFR-MET bispecific antibody in development for the treatment of metastatic non-small cell lung cancer (NSCLC) with epidermal growth factor receptor (EGFR) exon 20 insertion mutations.	High
		Janssen submitted a BLA for amivantamab.	
Ibrexafungerp / Scynexis, Inc.	12/07/2020 Treatment for: Vaginal Candidiasis	Ibrexafungerp is a first-in-class triterpenoid antifungal agent in development for the treatment of vulvovaginal candidiasis.	Moderate
		FDA accepted NDA for ibrexafungerp.	
Brincidofovir / Chimerix, Inc.	12/07/2020 Treatment for: Smallpox	Brincidofovir is a nucleotide analog broad-spectrum antiviral in development as a medical countermeasure for smallpox.	Moderate -
		FDA accepted NDA for brincidofovir.	
Twyneo (benzoyl peroxide and tretinoin) Cream / Sol-Gel Technologies, Ltd.	12/07/2020 Treatment for: Acne	Twyneo (benzoyl peroxide and tretinoin) is a fixed-dose combination of encapsulated benzoyl peroxide, 3%, and encapsulated tretinoin, 0.1%, cream for the treatment of acne vulgaris.	Moderate

FDA accepted NDA for Twyneo.

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Drug name / Manufacturer	Date	Indication(s)	Comments	Impact
Odevixibat / Albireo Pharma, Inc.	12/08/2020	Treatment for: Progressive Familial Intrahepatic Cholestasis (PFIC)	Odevixibat is a once-daily, non-systemic ileal bile acid transport inhibitor (IBATi) in development for the treatment of rare pediatric cholestatic liver diseases, including progressive familial intrahepatic cholestasis (PFIC), biliary atresia and Alagille syndrome.	High
			Albireo Pharma, Inc. submits a NDA and FDA granted orphan drug designation for odevixibat.	
TAK-721 (budesonide) Oral Suspension / Takeda Pharmaceutical Company Limited	12/15/2020	Treatment for: Eosinophilic Esophagitis	TAK-721 (budesonide oral suspension) is a novel mucoadherent topically active oral viscous formulation of budesonide in development as a treatment for eosinophilic esophagitis (EoE).	High
			FDA accepted NDA and granted orphan drug designation for TAK-721.	
 /P-102 (cantharidin) Topical Solution / Verrica Pharmaceuticals Inc. 	12/23/2020	Treatment for: Molluscum Contagiosum	VP-102 (cantharidin) is a topical terpenoid in development for the treatment of molluscum contagiosum.	Moderate
			NDA resubmitted.	
Corsuva (difelikefalin) / Cara herapeutics, Inc.	12/28/2020	Treatment for: Chronic Kidney Disease-Associated Pruritus	Korsuva (difelikefalin) is a selective peripheral kappa opioid receptor agonist in development for the treatment of moderate-to-severe pruritus in hemodialysis patients.	Moderate
			Cara Therapeutics submits a NDA for Korsuva.	
MydCombi (phenylephrine and tropicamide) Ophthalmic Solution / Eyenovia, Inc.	12/29/2020	Treatment for: Pharmacologic Mydriasis	MydCombi (phenylephrine and tropicamide) is a fixed-combination microdose formulation of the approved mydriatics phenylephrine and tropicamide in development for pharmacologic mydriasis in the eye care practitioner's office.	Low
			Eyenovia submits a NDA for MydCombi.	a

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Indication(s) Drug name / Manufacturer Date Comments Impact Treatment for: Schizophrenia, ALKS 3831 (olanzapine and 12/28/2020 ALKS 3831 (olanzapine and samidorphan) is an investigational, once-Moderate samidorphan) / Alkermes plc Bipolar Disorder daily, oral atypical antipsychotic combination of an established antipsychotic agent (olanzapine) and a novel µ-opioid receptor antagonist (samidorphan) in development for the treatment of schizophrenia and bipolar I disorder. NDA resubmitted. POWERED BY ONEARK

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