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NEWS LETTER OF CLINICAL PHARMACY

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Vision

St.Peter's is committed to generate, disseminate and preserve knowledge and work with pioneers of this knowledge, and to be the most sought after institute globally in the field of pharmaceutical sciences by creating world class pharmacy professionals and researchers.

Mission

To achieve academic excellence with integrity and creating opportunities for leadership and responsibilities through groundbreaking performance in the field of Pharmaceutical Sciences by educating students with pharmaceutical needs of the society and to advance the knowledge through research and to serve the profession and community.

INFORMATION ABOUTCOVID-19 (JANUARY -MARCH 2021)

Coronavirus disease (COVID-19) is acommunicable disease caused by the SARS-CoV-2 virus.

The month of March unpredictably ended with its biggest single-day surge in infections and deaths

Nearly 11.1 lakh Covid-19 cases were recorded in the month of March, more than the count in the previous two months put together. That is, January and February
Deaths too, rose during March, during a bright side tothe second Covid wave till now, fatalities have not surged as dramatically as the cases. The month saw 5,755 deaths, quite double the toll in February (2,767) but just a shade above the number reported in January (5,453).

Date	Confirmed cases	Deaths
Jan 4,2021	5,001,583	89,210
Jan 11,2021	4,828,190	97,740
Jan 18,2021	4,244,027	101,078
Jan 25,2021	3,759,975	101,114
Feb 1,2021	3,221,175	92,705
Feb 8,2021	2,730,630	85,255
Feb 15,2021	2,480,400	71,114
sFeb 22,2021	2,663,817	66,350
Mar 1,2021	2,735,396	63,015
Mar 8,2021	2,963,449	61,824
Mar 15,2021	3,308,473	63,973
Mar 22,2021	3,819,245	70,145
Mar 29,2021	4,060,710	74,278

VACCINATION: India began administration of COVID-19 vaccines on 16 January

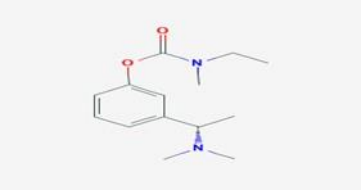
FDA APPROVED DRUGS (JANUARY-MARCH 2021)

Drug Name	**Date of Approval**	**Category**	**Indication**	**Mechanism of Action**	**Precautions**	**Complications**
Verquvo (Vericiguat)	19/01/2021	Vasodilators, Soluble Guanylate Cyclase stimulator	Reduce the risk of Cardio vascular death and Heart Failure	By directly stimulating sGC, independently of and synergistically with NO, vericiguat augments levels of intracellular cGMP, leading to smooth muscle relaxation andvasodilation.	Do not use this medication during Pregnancy and with medicine to treat erectile dysfunction (e.g:sildenafil).	Anemia Low blood pressure

Tepmetko (Tepotinib)	03/02/2021	Tyrosine Kinase Inhibitor	Metastatic non-small cell lung cancer (NSCLC) who have mesenchymal-epithelial transition (MET).	Tepotinib is a kinase inhibitor that targets MET, including variants with exon 14 skipping alterations.Tepotinib inhibits hepatocyte growth factor (HGF)-dependent and -independent MET phosphorylation and MET-dependent downstream signalling pathways.	Monitor LFTs prior to initiation, every 2 weeks during 1st 3 months, then once monthly. Test for increased AST, ALT, or bilirubin develops. Severe renal (CrCl<30mL/min).	Liver problems Lung problems
Breyanzi (Lisocabtagene maraleucel)	05/02/2021	Chimeric antigen receptor (CAR)-T cell.	Relapsed or refractory large B-cell lymphoma (LBCL).	CAR binding to CD19 expressed on the cell surface of tumour and normal B cells induces activation and proliferation of CAR T cells, release of pro-inflammatory cytokines, and cytotoxic killing of target Cells.	This may cause cytokine release syndrome (CRS), lowers the blood cells in your body. Because of this, you may bleed or get infections more easily.	Encephalopathy Low blood pressure Cytokine release syndrome.
Pepaxto (Melphalan flufenamide)	26/02/2021	Antineoplastics, Alkylating	Used in combination with dexamethasone for adult patients with relapsed or multiple myeloma.	Pepaxto (Melphalan flufenamide) is a peptide conjugated alkylating drug. Due to its lipophilicity, melphalan flufenamide is passively distributed into cells and thereafter enzymatically hydrolysed to melphalan.	Pepaxto with dexamethasone causes Thrombocytopenia, Neutropenia, Anaemia, malignancies, Embryo-foetal toxicity, Increased risk of mortality	Low blood cell counts are common and can be serious, Secondary cancers.

MONOGRAPH ON RIVASTIGMINE

Drug name: Rivastigmine

Structure: 

Pharmacological class: Reversible cholinesterase inhibitor

Available dosage forms

Oral: Capsule - 1.5mg, 3mg, 4.5mg, 6mg

Transdermal patches: 4.6mg/24hr, 9.5mg/24hr, 13.3mg/24hr.

Mechanism of action: Reversible acetylcholinesterase inhibitor that causes an increase in concentrations of acetylcholine, which in turn enhances cholinergic neurotransmission.

Indications – FDA Approved

Alzheimer Dementia

Oral:Initial: 1.5mg PO q12hr Transdermal:

Initial: Apply 4.6mg.

Parkinson Dementia.

Oral: Initial: 1.5mg PO.

Transdermal: Initial: Apply 4.6 mg.

Contraindications: Hypersensitivity to Rivastigmine, other carbamate derivatives, or any component of the formulation.

- Patients with history of severe skin reactions
- Not recommended for use in children

Half-life: 1.5hr (PO), 3hr (patch)

Adverse Effects: Dizziness, headache, agitation and falling,Nausea, vomiting, diarrhea, anorexia, abdominal pain, Weight loss.

Interactions: The concomitant use of Metoclopramide and Rivastigmine tartrate capsules are not recommended due to risk of additive extrapyramidal adverse effects.

Guideline From the American Heart Association/American Stroke Association

1. New in this guideline is a section describing recommendations for the diagnostic workup after ischemic stroke, to identify targets for treatment in order to reduce the risk of recurrent ischemic stroke.

2. Management of vascular risk factors remains extremely important in secondary stroke prevention, including (but not limited to) diabetes, smoking cessation, lipids, and especially hypertension. It is usually best, with goals of therapy tailored to the individual patient.

3. Antithrombotic therapy, including antiplatelet or anticoagulant agents, is recommended for nearly all patients without contraindications.

4. Atrial fibrillation remains a common and high-risk condition for second ischemic stroke. Anticoagulation is usually recommended if the patient has no contraindications.

5. Extracranial carotid artery disease is an important and treatable cause of stroke. Patients with severe stenosis ipsilateral to a nondisabling stroke or transient ischemic attack who are candidates for intervention should have the stenosis fixed.

6. Patients with severe intracranial stenosis in the vascular territory of ischemic stroke or transient ischemic attack should not receive angioplasty and stenting as a first-line therapy for preventing recurrence.

7. There have been several studies evaluating secondary stroke prevention of patent foramen ovale closure since the previous guideline in 2014. It is now considered reasonable to percutaneously close patent foramen ovale in patients who meet each of the following criteria: age 18–60 years.

8. Patients with embolic stroke of uncertain source should not be treated empirically with anticoagulants or ticagrelor because it was found to be of no benefit.

TRICUSPID ATRESIA

Tricuspid atresia is a type of congenital heart disease in which the valve between the right atrium and right ventricle fails to develop.

SYMPTOMS

Blue tinge to the skin and lips (cyanosis)

Difficulty breathing

Tiring easily, especially during feedings
Slow growth and poor weight gain

Fatigue and weakness

Shortness of breath

Swelling

Swelling of the abdomen (ascites)

RISK FACTORS

A mother who had German measles (rubella) or another viral illness during early pregnancy
A parent who has a congenital heart defect
alcohol consumption
Smoking
Diabetes
Use of some types of medications during pregnancy, such as the acne drug isotretinoin (Claravis, Amnesteem, others), some anti-seizure medications and some bipolar disorder medications.

COMPLICATIONS

Formation of blood clots that can lead to a clot blocking an artery in the lungs (pulmonary embolism) or cause a stroke
Easy tiring when participating in activity or exercise
Heart rhythm abnormalities (arrhythmias)
Kidney or liver disease

DIAGNOSIS

Before birth – Ultrasound
After birth – Echocardiogram,
Electrocardiogram(ECG),Pulse oximetry, Chest X-ray, Cardiac catheterization.

TREATMENT:

Cardiologists might recommend the use of prostaglandin.

SURGICAL PROCEDURES:

Includes - Atrial
septostomy
Shunting
Pulmonary artery band placement
Glenn operation
Fontan procedure