



DIRC Newsletter



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Official Desk



Dear Pharmacists,

Pharmadisha Orientation programme

We had mentioned in our July-September 2019 DIRC newsletter regarding the collaborative programme of our Council being contemplated with Rajiv Gandhi University of Health Sciences, Bengaluru. The plan was to organize an orientation programme for PG students (1st Sem M.Pharm) of Pharmacy to introduce them to learning and research processes of PG program.

True to our word, we designed and executed this program, with a motive to enhance the quality of profession of Pharmacy and upgrading the skills of pharmacy professionals in the state. KSPC, as you are already aware, has already introduced several schemes and programs towards betterment of profession of Pharmacy. In addition, KSPC plans to introduce the following programs in the future like Continuing Pharmacy Education program for Registered Pharmacists, Train the Trainer program for Teachers of Pharmacy, etc. The council is happy to share that this collaborative programme **"PHARMADISHA - An Orientation program for PG Students (1st Sem M.Pharm) of Pharmacy"** by Rajiv Gandhi University of Health Sciences and Karnataka State Pharmacy Council (KSPC), Bengaluru was successfully conducted between 2nd and 6th February 2020 for first year M.Pharm students of 2019 batch.

The Karnataka State Pharmacy Council, Karnataka has signed a Memorandum of Understanding (MoU) with Rajiv Gandhi University of Health Sciences on 19th November 2019. As agreed by KSPC and RGUHS, this training program is a prerequisite condition for M.Pharm students to submit their PG dissertation synopsis to the University.

The two-day PHARMADISHA orientation programme was conducted at seven centers of Karnataka -

1. Acharya & B M Reddy College of Pharmacy, Bengaluru.
2. V.V. Puram Institute of Pharmaceutical Sciences, Bengaluru.
3. Government College of Pharmacy, Bengaluru.
4. Soniya Education Trust College of Pharmacy, Dharwad.
5. Rajiv Memorial Education Society's College of Pharmacy, Kalaburagi.
6. Bharathi College of Pharmacy, Mandya.
7. Sridevi College of Pharmacy, Mangaluru.

759 students from 42 PG Pharmacy Colleges of Karnataka attended this training programme. Pre-orientation and Post orientation quizzes were administered to all students. Participants have provided a good feedback about the program.

39 resource persons from different colleges and institutions were part of this training program.

This is the first-of-its-kind training program for all the 1st M.Pharm students in the State of Karnataka, which shall be a regular feature henceforth.



Sri. Gangadhar V. Yavagal

President
Karnataka State
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Drug Alert

Favipiravir Tablets and Remdesivir Injection - 2nd July 2020

The Drug Controller General of India (DCGI) has approved Restricted Emergency Use of Favipiravir Tablets and Remdesivir Injection considering the emergency and unmet medical need for mild to moderate COVID-19 infection subject to various conditions and restrictions.

Both Remdesivir and Favipiravir formulations are required to be sold under the prescription of medical specialists only. Further, Remdesivir formulations are required to be supplied for use only to the hospital / institutions to ensure proper use of the drug as recommended.

In both the cases, informed consent of the patient or his /her representative in the prescribed form is mandatory before initiating the treatment.

Reference: <https://cdsco.gov.in/>

Guest Column Over-the-counter pharmacist advice

Scenario: Mr. X had a son who was very naughty – but fragile. The boy would often get throat infection and pain. But the naughty boy would not take full course of antibiotic therapy since it would cause diarrhea and weakness in him. Eventually, the boy was not responding to routine oral antibiotics, he had to get hospitalized for recovery from the repeat infections.

Pharmacists make the difference

When pharmacists provide medications and advice against prescriptions, their words of counsel deliver high impact. A parent once went to buy oral antibiotics for her child against a prescription. The mother was communicative with the pharmacist. She started complaining how her daughter would bring back respiratory infections from school, thanks to the close contact with fellow children and dust pollution during play in the ground. The pharmacist presented a smile of genuine concern when the mother vent her feelings. The pharmacist said that the doctor's prescription of the oral antibiotic would certainly help her daughter recover. And smiling the pharmacist gave some cough lozenges to the mother and said: "With my best compliments to your daughter". The mother cheered up and asked if there was any possibility to boost her daughter's immunity! The pharmacist said that there were products that would help her.

The pharmacist proceeded to show her a range of products and explain the benefits:

- Oral mouthwash and throat gargle products: The pharmacist explained how the virucidal and antibacterial effects of the mouthwash and throat gargle routinely at night, before sleeping would help the child protect from throat infections and gum disease! Many a times, the oral cavity and throat runs dry at night during sleep and leads to vulnerability to oral and throat infections.
- Zinc and Vitamin C supplements: The pharmacist through his wisdom emphasized that zinc and Vit. C are not stored in the body, hence daily intake is required, which may not be sufficient to kids. Moreover, fussy eating habits, fast food intake and food processing may reduce micronutrient levels,



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hence, taking daily zinc and Vit. C supplements would help the patient.

The pharmacist acted as a professional counsellor across the counter and did not oversell the concepts. He allowed the mother to decide. Looking at the appealing logic of the pharmacist's presentation, the mother bought above products for her child's benefit.

Just before she left, the pharmacist asked if her child suffered diarrhea or weakness due to antibiotic therapy. The mother responded with a resounding - yes. The pharmacist then recommended her to purchase Lactobacillus chewable tablets to be taken along with the beta lactam antibiotic to help overcome dysbiosis that caused the diarrhea and weakness.

When the mother asked what dysbiosis meant, the pharmacist smiled encouragingly and said: "The antibiotic does not differentiate between good beneficial bacteria and the disease causing bacteria; it kills them all, this shall result in an imbalance in the bacterial population, there is a reduction in number of beneficial bacteria. This causes the diarrhea and weakness!"

The mother made a quick purchase of the probiotic chewable tablets and smiled gratefully at the friendly and informed pharmacist.

Endnote: Friendly professional pharmacist counselling need not be an elaborate affair, just nuggets of useful advice on medications will provide confidence and help to the patient. Furthermore, this improves pharmacist & patient relationship, thereby loyalty of the patient to the pharmacy too increases, this results in overall better business outcomes for the pharmacy. □

Drug of the Quarter

Drug : Isavuconazonium Sulfate
Class : Antifungal /Anti-Infective Agent
Dosage form : 100 mg
Strength : Capsules
DCGI Approval : 14.02.2020
USFDA Approval : 06.03.2015

Indication: Indicated for patients 18 years of age and older for the treatment of Invasive Aspergillosis and invasive Mucormycosis.

Dosing Information:

Invasive Aspergillosis

- Loading dosage, 372 mg orally (2 capsules) or IV every 8 hours for 6 doses
- Maintenance dosage, 372 mg orally (2 capsules) or IV once daily, starting 12 to 24 hours after the last loading dose
- The duration will be 6 to 12 weeks depending on disease site, disease improvement, and level of immunosuppression.

Invasive Mucormycosis

- Initial loading dose, 372 mg ORALLY (2 capsules) or via IV infusion every 8 hours for 6 doses (48 hours)
- Maintenance, 372 mg ORALLY (2 capsules) or via IV infusion once daily, starting 12 to 24 hours after the last loading dose

Pediatric Dosing: Safety and efficacy have not been established in pediatric patients.

Pharmacokinetics

Absorption

- Tmax, Isavuconazole, Oral: 3 hours (372 mg/day); 4 hours (1116 mg/day)
- Bioavailability, Isavuconazole, Oral: 98%
- Effects of food, Isavuconazole: Minimal

Distribution

- Protein binding, Isavuconazole: Greater than 99%
- Vd, Isavuconazole: 450 L

Metabolism

- Blood: Predominant site
- Isavuconazole (major): Active
- Isavuconazole (active moiety), substrate of CYP3A4 (sensitive), CYP3A5, and UGT
- Isavuconazole (active moiety), inhibitor of CYP3A4 (moderate), CYP2C8, CYP2C9, CYP2C19, CYP2D6, and P-gp-, BCRP-, and OCT2-transporters
- Isavuconazole (active moiety), inducer of CYP3A4, CYP2B6, CYP2C8, CYP2C9

Excretion

- Renal excretion: 45.5%; less than 1% as isavuconazole
- Fecal: 46.1%
- Dialyzable, Isavuconazole: Not readily
- Total body clearance, Isavuconazole: 2.6 L/hr (Western subjects); 1.6 L/hr (Chinese subjects); 40% reduced (mild hepatic impairment); 48% (moderate hepatic impairment)

Elimination Half Life

- Isavuconazole, 130 hours

Contraindication:

- Concomitant use with CYP3A4 inhibitors such as ketoconazole or high-dose ritonavir; increased plasma concentrations of isavuconazole (active moiety of isavuconazonium sulfate)
- Concomitant use with CYP3A4 inducers such as rifampin, carbamazepine, St. John's wort, or long acting barbiturates; decreased plasma concentrations of isavuconazole (active moiety of isavuconazonium sulfate)
- Familial short QT syndrome
- Hypersensitivity to isavuconazole (active moiety of isavuconazonium sulfate)

Cautions

- **Dermatologic:** Serious hypersensitivity and severe skin reactions, such as Stevens Johnson syndrome, have been reported with other azole antifungals; discontinue if severe cutaneous reaction develops.
- **Hepatic:** Elevations in ALT, AST, alkaline phosphatase, and total bilirubin have been reported; evaluate at baseline and monitoring recommended.
- -- Hepatitis, cholestasis, hepatic failure, and death have been reported in patients with serious underlying medical disease (eg, hematologic malignancy); evaluate at baseline, monitoring recommended, and discontinue if suspected
- **Immunologic:** Serious hypersensitivity reactions, such as anaphylaxis, have been reported with other azole antifungals; use cautiously in patients with hypersensitivity to other azole antifungals.
- **Reproductive:** Pregnancy; risk of embryo-fetal toxicity.
- **Other:** Hypotension, dyspnea, chills, dizziness, paraesthesia, hypoesthesia have been reported during IV administration; discontinue.

Mechanism of Action:

Isavuconazonium sulfate is the prodrug of the azole antifungal, isavuconazole. Isavuconazole weakens the fungal cell membrane structure and function by inhibiting lanosterol 14-alpha-

demethylase which prevents the conversion to ergosterol, part of the fungal cell membrane. Mammalian cells are less sensitive to isavuconazole inhibition of demethylation.

Adverse Effects

Common

- **Cardiovascular:** Peripheral edema
- **Endocrine metabolic:** Hypokalemia
- **Gastrointestinal:** Constipation, Diarrhea, Nausea, Vomiting
- **Musculoskeletal:** Backache

- **Neurologic:** Headache
- **Respiratory:** Cough, Dyspnea

Serious

- **Hepatic:** Cholestasis, Hepatitis, Increased liver function test, Liver failure
- **Immunologic:** Hypersensitivity reaction
- **Renal:** Renal failure
- **Respiratory:** Acute respiratory failure
- **Other:** Infusion reaction

Drug-Drug Interactions

Category	Drug/s (Examples)	Interaction Effect	Management
Antiretroviral	Ritonavir	May result in increased isavuconazole plasma concentration and decreased ritonavir exposure.	Contraindicated for concurrent use.
Antifungal	Itraconazole	May result in increased isavuconazole plasma concentration.	Contraindicated for concurrent use.
Strong Cyp3a4 Inducers	Phenytoin, Carbamazepine, Rifampin, Mitotane, Fosphenytoin, St John's Wort, Enzalutamide	May result in decreased isavuconazole plasma concentration.	Contraindicated for concurrent use.
Strong Cyp3a4 inhibitors	Ketoconazole, Clarithromycin, Nefazodone, Saquinavir, Indinavir, Delavirdine, Nelfinavir, Voriconazole, Tipranavir, Telithromycin, Posaconazole, Atazanavir	May result in increased isavuconazole plasma concentration.	Contraindicated for concurrent use.
Antiretroviral	Lopinavir	May result in increased isavuconazole plasma concentration and decreased lopinavir exposure.	Avoid concomitant use.
P-GP and CYP3A4 substrates with a narrow therapeutic index	Cyclosporine, tacrolimus, sirolimus	May result in increased plasma concentration of the P-gp/CYP3A4 substrate.	Avoid concomitant use.
Immune Suppressant	Mycophenolate Mofetil	May result in increased plasma concentration of mycophenolate mofetil and possible increased in the adverse effects.	Avoid concomitant use.
Anesthetic Adjunct / Anticonvulsant	Midazolam	May result in increased midazolam plasma concentration.	Avoid concomitant use.
Antihyperlipidemic	Atorvastatin	May result in increased atorvastatin plasma concentration.	Avoid concomitant use.

Severity: *The interaction may be life-threatening and/or require medical intervention to minimize or prevent serious adverse effects.

Drug-Food Interactions

Food	Interaction Effect	Management
Grapefruit Juice	Increases isavuconazole plasma concentration.	Contraindicated for concurrent use.

** The interaction may be life-threatening and/or require medical intervention to minimize or prevent serious adverse effects.

Effects in Pregnancy

Severity	Management
Moderate	Fetal risk cannot be ruled out. Available evidence is inconclusive or is inadequate for determining fetal risk when Isavuconazonium Sulfate is used in pregnant women or women of childbearing potential. Weigh the potential benefits of drug treatment against potential risks before prescribing Isavuconazonium Sulfate during pregnancy.

Effect in Lactation

Severity	Management
Major	Infant risk cannot be ruled out: Available evidence and/or expert consensus is inconclusive or is inadequate for determining infant risk when Isavuconazonium Sulfate is used during breast-feeding. Weigh the potential benefits of treatment against potential risks before prescribing Isavuconazonium Sulfate during breast-feeding.

Patient Education

- Advise patient to report symptoms of hepatitis, cholestasis, or hepatic failure.
- Instruct patient to report symptoms of exfoliative cutaneous reactions or Stevens-Johnson syndrome.
- Recommend female patient of childbearing potential use effective contraception during therapy and for 28 days after the final dose.
- Side effects may include nausea, vomiting, diarrhea, headache, constipation, dyspnea, cough, peripheral edema, and back pain.
- Injection side effects may include infusion-related reactions.

References:

1. <http://www.micromedexsolutions.com/>
2. <http://www.cdsc.nic.in/>



Drug Safety Alerts

- Pharmacovigilance Programme of India (PvPI)



The preliminary analysis of Serious Unexpected Serious Adverse Reaction (SUSARs) from the PvPI database reveals that the following drugs are associated with the risks as given below.

Sl. No	Suspected Drug/s	Category	Indication/Use	Adverse Reaction/s Reported
January 2020				
1	Fluconazole	Antifungal	Systemic candidiasis, mucosal candidiasis, pityriasis versicolor, prevention of fungal infections in patients with malignancy.	Mouth Ulceration
2	Disulfiram	Dependency Agent	Antidotes, Detoxifying Agents & Drugs Used in Substance Dependence	Skin Hyperpigmentation
December 2019				
3	Cephalosporin	Antibiotic	Treatment of serious infections due to susceptible organisms-respiratory tract infections, urinary tract infections, skin billiary tract infections, septicaemia, meningitis other infections due to susceptible organisms and in the treatment of infections due to penicillin resistant strains of staphylococci.	Acute Generalized Exanthematous Pustulosis
4	Levamisole	Anthelmintic	Treatment and control of mature and developing immature infections of haemonchus, ostertagia, trichostrongylus, cooperia, nematodinus, bunostomum, oesophagastomum and dictyocaulus and all forms of liver fluke infection.	Stevens Johnson Syndrome

Sl. No	Suspected Drug/s	Category	Indication/Use	Adverse Reaction/s Reported
November 2019				
5	Cetirizine	Antibiotic	Allergic rhinitis and chronic urticaria.	Hiccups
6	Cilostazole	Blood Modifier Agent	Treatment of stable intermittent claudication, acting or cramping in legs that occur with walking.	Tinnitus
October 2019				
7	Clozapine	Antipsychotic	Management of Schizophrenic patients.	Neural Tube Defects
8	Cetirizine	Antihistamine	Treatment of allergic rhinitis and chronic urticaria.	Acute Generalized Exanthematous Pustulosis

Healthcare professionals, Patients / Consumers are advised to closely monitor the possibility of the above adverse events associated with the use of above drugs.

If such events are encountered, please report to the NCC-PvPI either by filling of Suspected Adverse Drug Reactions Reporting Form/ Medicines Side Effect Reporting Form for Consumer (<http://www.ipc.gov.in>) or by PvPI Helpline No. 1800-180-3024.

Meaning: Symmetrical drug-related intertriginous and flexural exanthema (SDRIFE)- A symmetrical erythematous rash on the flexures after systemic exposure to a drug.

Reference: www.ipc.gov.in



Serious Risks/Safety Information – USFDA

Potential Signals of Serious Risks/New Safety Information Identified by the Adverse Event Reporting System (AERS) – USFDA

The USFDA Adverse Event Reporting System (FAERS) is a database that contains information on adverse event and medication error reports submitted to FDA. The database is designed to support the FDA's post-marketing safety surveillance program for drug and therapeutic biologic products.

The appearance of a drug on this list does not mean that conclusive of the risk. It means that FDA has identified a **potential safety issue** but does not mean that FDA has identified a causal relationship between the drug and the listed risk. If after further evaluation the FDA determines whether the drug is associated with the risk or not and it may take a variety of actions including requiring changes to the labeling of the drug, requiring development of a Risk Evaluation and Mitigation Strategy (REMS) or gathering additional data to better characterize the risk.

Therapeutic Class / Category	Drug (Examples)	Route of Administration	Potential Signal of a Serious Risk / New Safety Information	Additional Information
July – Sept 2019				
Antineoplastic Agent	Cisplatin	Intravenous	Aortic thrombosis	Evaluation is in progress.
Antineoplastic Agent	Palbociclib, ribociclib, letrozole and ribociclib, abemaciclib	Oral	Interstitial Lung Disease/ Pneumonitis	The labeling section of the product was updated to include Interstitial Lung Disease/Pneumonitis.
Genitourinary Agent	Pentosan polysulfate sodium	Oral	Eye disorders	Evaluation is in progress.
Antiretroviral	Bictegravir, emtricitabine and tenofovir alafenamide; Emtricitabine and tenofovir alafenamide; Elvitegravir, cobicistat, emtricitabine and tenofovir alafenamide;	Oral	Renal toxicity	Evaluation is in progress.

Therapeutic Class / Category	Drug (Examples)	Route of Administration	Potential Signal of a Serious Risk / New Safety Information	Additional Information
	Emtricitabine, rilpivirine and tenofovir alafenamide; Darunavir, cobicistat, emtricitabine and tenofovir alafenamide; Tenofovir alafenamide			
Antineoplastic Agent	Bosutinib monohydrate, Imatinib mesylate, Ponatinib	Oral	Thyroid dysfunction	Evaluation is in progress.
Antibiotic	Vancomycin hydrochloride	Oral/ Intravenous	Serious cutaneous adverse reactions, including drug reaction with eosinophilia and systemic symptoms (DRESS), Stevens-Johnson syndrome (SJS), toxic epidermal necrolysis (TEN), acute generalized exanthematous pustulosis (AGEP), and Linear IgA disease	Evaluation is in progress.
Fluoroquinolones	Moxifloxacin hydrochloride, Delafloxacin meglumine, Ciprofloxacin, Gemifloxacin mesylate, Levofloxacin	Oral/ Intravenous	Risk of mitral and aortic regurgitation	Evaluation is in progress.
Antirheumatic/ Central Nervous System Agent	Glatiramer Acetate	Subcutaneous	Drug device usage errors	Evaluation is in progress.
Dermatological Agent	Deoxycholic acid	Injection	Injection site scarring	Evaluation is in progress.
Antirheumatic/ Musculoskeletal Agent	Baricitinib	Oral	Hypersensitivity reaction	Evaluation is in progress.
Antibiotic	Oritavancin diphosphate	Intravenous	Infusion-related reactions	Evaluation is in progress.
Antineoplastic Agent	Tacrolimus	Intravenous/ Oral/Topical	Therapeutic inequivalence	Evaluation is in progress.
Antineoplastic Agent	Capecitabine	Oral	Cerebellar toxicity	Evaluation is in progress.
Antiviral	Baloxavir marboxil	Oral	Serious skin reactions	The labeling section of the product was updated to include adverse reactions of erythema multiforme and rash.
Antineoplastic Agent/ Immunological Agent	Axicabtagene ciloleucel	Intravenous	Dysphagia	Evaluation is in progress.

Meanings:

Aortic regurgitation - a heart valve disease in which the aortic valve does not close tightly, **Dysphagia** - difficulty in swallowing.

References:

1. <http://www.fda.gov/>
2. www.micromedexsolutions.com, Micromedex (R) 2.0, 2002-2020, IBM Corporation 2020.



Drug News – Around the Globe



1. Drug: Sofosbuvir and Velpatasvir*

Country: USA

Sofosbuvir and Velpatasvir is an antiviral drug.

Approved Indication: Sofosbuvir and Velpatasvir combination is approved to treat hepatitis C virus (HCV) in children ages 6 years and older or weighing at least 17 kilograms with any strain of hepatitis-C without cirrhosis (liver disease) or with mild cirrhosis.

Approved Dosage Form: Tablet.

Side-effects: Fatigue, headache¹.

2. Drug: Nintedanib**

Country: USA

Nintedanib is in a class of kinase inhibitors. It works by blocking the action of enzymes involved in causing fibrosis.

Approved Indication: Nintedanib is approved to treat patients with chronic fibrosing (scarring) interstitial lung diseases (ILD) with a progressive phenotype (trait). It is the first FDA-approved treatment for this group of fibrosing lung diseases that worsen over time.

Approved Dosage Form: Capsule.

Side-effects: Diarrhea, nausea, stomach pain, vomiting, liver problems, decreased appetite, headache, weight loss¹.

3. Drug: Teprotumumab*

Country: USA

Teprotumumab is an Endocrine-Metabolic Agent

Approved Indication: Teprotumumab is approved for the treatment of adults with thyroid eye disease, a rare condition where the muscles and fatty tissues behind the eye become inflamed, causing the eyes to be pushed forward and bulge outwards (proptosis). It is the first FDA-approved treatment of thyroid eye disease.

Approved Dosage Form: Injection.

Side-effects: Muscle spasm, nausea, alopecia (hair loss), diarrhea, fatigue, hyperglycemia (high blood sugar), hearing loss, dry skin, dysgeusia (altered sense of taste) and headache¹.

4. Drug: Ripretinib*

Country: USA

Ripretinib is an antineoplastic agent or a Tyrosine Kinase Inhibitor

Approved Indication: Ripretinib is approved as a fourth-line treatment for advanced gastrointestinal stromal tumor (GIST), a type of tumor that originates in the gastrointestinal tract. This drug is indicated for adult patients who have received prior treatment with three or more kinase inhibitor therapies, including imatinib.

Approved Dosage Form: Tablet.

Side-effects: Alopecia (hair loss), fatigue, nausea, abdominal pain, constipation, myalgia (muscle pain), diarrhea, decreased appetite, palmar-plantar erythrodysesthesia syndrome (a skin reaction in the palms and soles) and vomiting¹.

5. Drug: Solifenacin**

Country: USA

Solifenacin succinate is anticholinergic or antimuscarinic

Approved Indication: Solifenacin succinate is approved for the treatment of neurogenic detrusor overactivity (NDO), a form of bladder dysfunction related to neurological impairment, in children ages two years and older. Solifenacin succinate tablets were initially approved in 2004 for the treatment of overactive bladder in adults 18 years and older.

Approved Dosage Form: Oral Suspension.

Side-effects: Constipation, dry mouth, urinary tract infection¹.

6. Drug: Canakinumab*

Country: USA

Canakinumab is an immune modulator.

Approved Indication: Canakinumab is approved for the treatment of Active Still's disease, including Adult-Onset Still's Disease (AOSD). Canakinumab was previously approved for Systemic Juvenile Idiopathic Arthritis (SJIA) in patients aged 2 years and older.

Approved Dosage Form: Injection.

Side-effects: Colds and upper respiratory tract infections, abdominal pain and injection-site reactions¹.

7. Drug: Fenfluramine*

Country: USA

Fenfluramine is an anti-convulsant drug.

Approved Indication: Fenfluramine is approved for the treatment of seizures associated with Dravet syndrome in patients age 2 and older. Dravet syndrome is a life-threatening, rare, and chronic form of epilepsy. It is often characterized by severe and unrelenting seizures despite medical treatment.

Approved Dosage Form: Tablet.

Side-effects: Decreased appetite, drowsiness, sedation, diarrhea, constipation, abnormal echocardiogram, fatigue¹.

8. Drug: Fostemsavir*

Country: USA

Fostemsavir is an antiretroviral drug.

Approved Indication: Fostemsavir is approved as a new type of antiretroviral medication for adults living with HIV who have tried multiple HIV medications and whose HIV infection cannot be successfully treated with other therapies because of resistance, intolerance, or safety considerations.

Approved Dosage Form: Tablet.

Side-effects: Elevations of liver enzymes¹.

Note – *Not available in India

**Available in India

Reference: <https://www.fda.gov/>



Safety Alert - Around the Globe



1. Drug: Ondansetron**

Country: UK

May cause increased risk of oral clefts following use in the first 12 weeks of pregnancy.

Ondansetron is an antiemetic drug.

Alert: The Medicines and Healthcare products Regulatory Agency, UK has alerted that exposure to ondansetron during the first trimester of pregnancy is associated with a small increased risk of the baby having a cleft lip and/or cleft palate.

Hence, KSPC-DIRC alerts the healthcare professionals to be cautious while prescribing Ondansetron during pregnancy¹.

2. Drug: Clozapine**

Country: USA

May cause increased risk of serious bowel complications.

Clozapine is an Antipsychotic drug.

Alert: The US Food and Drug Administration (FDA) is strengthening an existing warning that constipation caused by clozapine can, uncommonly, progress to serious bowel complications. This can lead to hospitalization or even death if constipation is not diagnosed and treated quickly. Constipation is a frequent and known side effect of clozapine, but serious and fatal events continue to be reported.

Hence, KSPC-DIRC alerts the healthcare professionals to be cautious while prescribing Clozapine¹.

Note – **Available in India

References:

1. <https://www.gov.uk/>
2. www.medsafe.govt.nz/



Continuing Pharmacy Education (CPE)

Dispensing Instructions to the Pharmacists

Scabies

Scabies is a contagious, intensely itchy skin condition caused by a tiny, burrowing mite.

The most common symptom of scabies is intense itching in the area where the mites burrow. Scabies can spread quickly through close physical contact in a family, childcare group, school class, nursing home or prison. Because scabies is so contagious, doctors often recommend treatment for entire families or contact groups.

Symptoms

Scabies signs and symptoms include:

- Itching, often severe and usually worse at night
- Thin, irregular burrow tracks made up of tiny blisters or bumps on your skin

The burrows or tracks typically appear in folds of skin. Though almost any part of the body may be involved, in adults and older children scabies is most often found:

- Between the fingers
- In the armpits
- Around the waist

- Along the insides of the wrists
- On the inner elbows
- On the soles of the feet
- Around the breasts
- Around the male genital area
- On the buttocks
- On the knees

In infants and young children, common sites of infestation usually include the:

- Scalp
- Palms of the hands
- Soles of the feet

Scabies can be treated by killing the mites and their eggs with medication that is applied from the neck down and left on for eight hours. The mites can also be killed using oral medication.

Permethrin cream and ivermectin are the drugs of choice for the treatment of scabies; lindane is used only as an alternative because of its potential toxicity.

Below is a brief overview of few topical drugs used in the treatment of scabies.

Drugs/ Category	Use	Warnings	Less serious side effects	Advice
Permethrin Topical forms available: Cream, Lotion, Soap	Treats head lice infestation and scabies.	Prescription to be reconfirmed in case of patient is pregnant or breastfeeding. Not recommended to use this medicine in an infant younger than 2 months of age.	Swelling, erythema, pruritus, rash, stinging of skin, burning sensation	Advise to teach the patient proper application technique, depending on affected body site. Inform the patient to wash clothes, bedding, and personal items in hot, soapy water to prevent reinfection. Advise the patient to cleanse their eyes with lots of water if any medicine gets in their eyes. Do not use this medicine on eyebrows or eyelashes.
Ivermectin Topical forms available: Cream, Lotion, Shampoo	Treats head lice and rosacea.	Prescription to be reconfirmed in case of patient is pregnant or breastfeeding or if you have any other skin problems.	Skin burning sensation and skin irritation	Use this medicine as directed or prescribed. Do not use more medicine or use it more often. Instruct the patient that the cream is not for oral, ophthalmic, or intravaginal use. Use only on skin. Advise the patient that if they have missed a dose, then apply a dose as soon as possible. If it is almost time for the next dose, wait until then and apply a regular dose. Do not apply extra medicine to make up for a missed dose.
Lindane Topical forms available: Lotion, Ointment, Shampoo, Emulsion	Treatment of lice and scabies.	Prescription to be reconfirmed in case of used in infants, children, the elderly, and patients weighing less than 50 kg as these populations may be at increased risk of serious neurotoxicity. Contraindicated in uncontrolled seizure disorders. Lindane shampoo should only be used in patients who cannot tolerate or have failed first-line treatment with safer medications for the treatment of lice.	Post-treatment Pruritus, dizziness, insomnia, anxiety	Advise the patients for proper use of lindane shampoo, the amount to apply, how long to leave it on and avoiding retreatment. Caution to avoid medication in contact with eyes, mouth, or open wounds. Advise the patient caregivers applying medication to patient to wear less permeable gloves (avoid natural latex) during application. Avoid contact with the medicine as much as possible if caregiver is pregnant.

Storage: Advise the patient or caretaker to store the medicine in a closed container at room temperature, away from heat, moisture, and direct light. Ensure to keep all medicine out of the reach of children.

References:

1. Handbook of Pharma SOS, Educational Series-I, 9th Edition 2020, published by Karnataka State Pharmacy Council, Bangalore.
2. www.micromedexsolutions.com, Micromedex® 2.0, 2002-2020, IBM Corporation 2020.
3. www.mayoclinic.org



Drug Usage in Special Population - Pediatrics and Geriatrics

(From KSPCDIRC publication)

Antineoplastic Drugs

Drug	Usage in Children (Pediatrics)	Usage in Elderly (Geriatrics)
Actinomycin D/ Dactinomycin	Safety and efficacy have been well established in paediatric patients.	Dose adjustment is required only in obese patients.
Bleomycin Sulfate	Safety and efficacy have not been established.	Dosage adjustment is necessary in patients with renal impairment.

Drug	Usage in Children (Pediatrics)	Usage in Elderly (Geriatrics)
Chlorambucil	Safety and efficacy have not been established.	Dosage adjustment required in Geriatric and patients with hepatic impairment.
Cisplatin	Safety and efficacy have not been established.	Dosage reduction or alternative treatments in patients with baseline impairment in renal failure. Careful selection of dose in Geriatric patients due to increased risk of some adverse events.
Cyclophosphamide	Safety and efficacy have been well established in paediatric patients.	Dosage adjustment required in Geriatric and patients.
Doxorubicin	Safety and efficacy have been well established in paediatric patients.	Use reduced dosage in hepatic insufficiency. Consider using the lower dose in the recommended dose range or longer intervals between cycles.
Fluorouracil	Safety and efficacy have not been established.	No dosage adjustment is required.
Hydroxyurea	Safety and efficacy have not been established except in Sickle cell anemia with crisis.	Dosage adjustment required in patients with hepatic impairment.

Reference: Drug Usage in special Population-Pediatrics and Geriatrics, Educational Series-II, 8th Edition 2020, published by Karnataka State Pharmacy Council, Bengaluru.



Drug Usage in Special Population - Pregnancy and Lactation

(From KSPCDIRC publication)

Antineoplastic Drugs

Drug	Usage in Pregnancy (Teratogenicity)	Usage in Breastfeeding (Lactation)
Actinomycin D / Dactinomycin	Fetal risk cannot be ruled out. Available evidence is inconclusive or is inadequate for determining fetal risk when used in pregnant women or women of childbearing potential. Weigh the potential benefits of drug treatment against potential risks.	Infant risk cannot be ruled out. Weigh the benefits of breastfeeding with the mother's clinical need before use.
Bleomycin Sulfate	Fetal risk cannot be ruled out. Teratogenic effects have not been reported with this drug, although one case involving combination treatment with bleomycin did result in fetal adverse effects. Weigh the potential benefits of drug treatment against potential risks.	Infant risk cannot be ruled out. Avoid breastfeeding.
Chlorambucil	Fetal risk cannot be ruled out. Apprise women of the potential risk to the fetus if chlorambucil is used during pregnancy or if pregnancy occurs during treatment.	Infant risk cannot be ruled out. Caution to use.
Cisplatin	Fetal risk has been demonstrated. Weigh the potential benefits of drug treatment against potential risks before prescribing this drug during pregnancy.	Infant risk cannot be ruled out. Use with Caution.
Cyclophosphamide	There is positive evidence of human fetal risk, but the benefits from use in pregnant women may be acceptable despite the risk.	Infant risk has been demonstrated. Use with caution.
Doxorubicin	Fetal risk cannot be ruled out. Available evidence is inconclusive or is inadequate for determining fetal risk. Weigh the potential benefits of drug treatment against potential risks before prescribing this drug during pregnancy.	Infant risk cannot be ruled out. Weigh the benefits of breastfeeding with the mother's clinical need before use.
Fluorouracil	Fetal risk has been demonstrated. Weigh the potential benefits of drug treatment against potential risks before prescribing this drug during pregnancy.	Infant risk cannot be ruled out. Avoid breastfeeding.

Drug	Usage in Pregnancy (Teratogenicity)	Usage in Breastfeeding (Lactation)
Hydroxyurea	Fetal risk cannot be ruled out. Available evidence is inconclusive or is inadequate for determining fetal risk when used in pregnant women or women of childbearing potential. Weigh the potential benefits of drug treatment against potential risks before prescribing this drug during pregnancy.	Infant risk cannot be ruled out. Use with caution.

Reference: Drug Usage in special Population-Pregnancy and Lactation, Educational Series-I, 8th Edition 2020, published by Karnataka State Pharmacy Council, Bangalore.

ಕೊರೋನಾವೈರಸ್ (COVID-19) – ಸಾಂಕ್ರಾಮಿಕ ದೃಷ್ಟಿಯಿಂದ ಅಧಿಕ ರಕ್ತದೊತ್ತಡ, ಮಧುಮೇಹ ಮತ್ತು ಹೃದ್ರೋಗ ಹೊಂದಿರುವ ರೋಗಿಗಳಿಗೆ ಸಲಹೆ (Patients with Hypertension, Diabetes and Heart Diseases in view of Coronavirus/COVID-19 Pandemic)

ಹೃದಯ ಕಾಯಿಲೆ ಅಥವಾ ಅಧಿಕ ರಕ್ತದೊತ್ತಡ ಹೊಂದಿರುವ ರೋಗಿಗಳು ಕೊರೋನಾವೈರಸ್ ಸೋಂಕನ್ನು ಪಡೆಯುವ ಅಪಾಯವನ್ನು ಹೆಚ್ಚಿಸುತ್ತಾರೆಯೇ? ಇಲ್ಲ, ಹೃದಯ ಮತ್ತು ರಕ್ತಪರಿಚಲನಾ ಕಾಯಿಲೆಗಳು ಅಥವಾ ಅಧಿಕ ರಕ್ತದೊತ್ತಡ ಇರುವವರು ಎಲರಿಗಿಂತ ಅಧಿಕೃತವಾಗಿ ಹೆಚ್ಚು ಸೋಂಕನ್ನು ಪಡೆಯುವ ಅಪಾಯವಿಲ್ಲ.	Are patients with heart disease, diabetes, or hypertension at increased risk to get coronavirus infection? No, people with hypertension, diabetes or heart diseases are at no greater risk of getting the infection than anyone else.
ನೀವು ಸೋಂಕಿಗೆ ಒಳಗಾದ ನಂತರ ಹೆಚ್ಚಿನ ಅಪಾಯವಿದೆಯೇ? COVID-19 ಸೋಂಕಿನಿಂದ ಬಳಲುತ್ತಿರುವ ಬಹುಪಾಲು (80%) ಜನರು ಉಸಿರಾಟದ ತೊಂದರೆಯ (ಜ್ವರ, ನೋಯುತ್ತಿರುವ ಗಂಟಲು, ಕೆಮ್ಮು) ಸೌಮ್ಯ ಲಕ್ಷಣಗಳನ್ನು ಹೊಂದಿದ್ದಾರೆ ಮತ್ತು ಪೂರ್ಣವಾಗಿ ಚೇತರಿಸಿಕೊಳ್ಳುತ್ತಾರೆ. ಆದರೆ ಪೀಡಿತ ದೇಶಗಳಲ್ಲಿ ನಾವು ನೋಡಿದ ಸಂಗತಿಯೆಂದರೆ, ಅಧಿಕ ರಕ್ತದೊತ್ತಡ ಮತ್ತು ಹೃದಯ ವೈಫಲ್ಯ (ದುರ್ಬಲ ಹೃದಯ) ಸೇರಿದಂತೆ ಹೃದ್ರೋಗ ಹೊಂದಿರುವ ಜನರು ಹೆಚ್ಚು ತೀವ್ರವಾದ ಕಾಯಿಲೆಯ ಅಪಾಯವನ್ನು ಹೊಂದಿರುತ್ತಾರೆ, ಆದ್ದರಿಂದ ನಾವು ಜಾಗರೂಕರಾಗಿರಬೇಕು. ನಿಮ್ಮ ಔಷಧಿಗಳನ್ನು ನಿಯಮಿತವಾಗಿ ತೆಗೆದುಕೊಳ್ಳಿ - ಇದು ಬಹಳ ಮುಖ್ಯ. ನೀವು ಸ್ವಲ್ಪ ರೋಗಲಕ್ಷಣ ಹೊಂದಿದ್ದರೂ ಸಹ ನೀವು ಸೂಚಿಸಿದ ಎಲ್ಲಾ ಔಷಧಿಗಳನ್ನು ತೆಗೆದುಕೊಳ್ಳುತ್ತೀರಾ ಎಂದು ಖಚಿತಪಡಿಸಿಕೊಳ್ಳಿ. ಸಾಧ್ಯವಾದರೆ ಕನಿಷ್ಠ ಎರಡು ವಾರಗಳವರೆಗೆ ಔಷಧಿಗಳ ಸಾಕಷ್ಟು ಸಂಗ್ರಹವನ್ನು ಹೊಂದಲು ಪ್ರಯತ್ನಿಸಿ.	Among people with above diseases is there an increased risk of severe illness or complications once infected? The majority (80%) of people diagnosed with COVID-19 will have mild symptoms of a respiratory infection (fever, sore throat, cough) and make full recovery. Some of the people with diabetes, hypertension and heart diseases including Heart Failure (weak heart) may develop more severe symptoms and complications. Therefore, extra care is advised for these patients.
COVID-19 ಸೋಂಕಿನ ತೀವ್ರತೆಯನ್ನು ಹೆಚ್ಚಿಸುವ ಬಿಪಿ ಔಷಧಿಗಳ ವರದಿಗಳ ಬಗ್ಗೆ ಏನು? ಲಭ್ಯವಿರುವ ಮಾಹಿತಿಯ ಪರಿಶೀಲನೆಯ ನಂತರ ವಿವಿಧ ವೈಜ್ಞಾನಿಕ ಸಮಾಜಗಳು ಮತ್ತು ಹೃದ್ರೋಗ ತಜ್ಞರ ಒಮ್ಮತವೆಂದರೆ ಪ್ರಸ್ತುತ ಎರಡು ಗುಂಪು ಔಷಧಿಗಳು (ಎಸಿಇ ಪ್ರತಿರೋಧಕಗಳು (ರಾಮಿಪ್ರಿಲ್, ಎನಾಲಾಪ್ರಿಲ್ ಇತ್ಯಾದಿ) ಮತ್ತು ಆಂಜಿಯೋಟೆನ್ಸಿನ್ ರಿಸೆಪ್ಟರ್ ಬ್ಲಾಕರ್‌ಗಳು (ಎಆರ್‌ಬಿಗಳು) (ಲೋಸಾರ್ಟನ್, ಟೆಲಿಸಾರ್ಟನ್ ಇತ್ಯಾದಿ) COVID-19 ಸೋಂಕುಗಳ ಒಳಗಾಗುವಿಕೆ ಅಥವಾ ತೀವ್ರತೆಯನ್ನು ಹೆಚ್ಚಿಸುತ್ತದೆ. ನಿಮ್ಮ ಹೃದಯದ ಕಾರ್ಯವನ್ನು ಬೆಂಬಲಿಸುವ ಮೂಲಕ ಮತ್ತು ಅಧಿಕ ರಕ್ತದೊತ್ತಡವನ್ನು ನಿಯಂತ್ರಿಸುವ ಮೂಲಕ ಈ ಔಷಧಿಗಳು ಹೃದಯ ವೈಫಲ್ಯಕ್ಕೆ ಬಹಳ ಪರಿಣಾಮಕಾರಿ. ನಿಮ್ಮ ಹೃದಯ ಸ್ಥಿತಿಯನ್ನು ಇನ್ನಷ್ಟು ಹದಗೆಡಿಸುವ ಈ ಔಷಧಿಗಳನ್ನು ನೀವೇ ಸೂಚಿಸಿದ ಎಲ್ಲಾ ಔಷಧಿಗಳನ್ನು ತೆಗೆದುಕೊಳ್ಳುವುದನ್ನು ಮುಂದುವರಿಸುವುದು ಬಹಳ ಮುಖ್ಯ. ಕೊಲೆಸ್ಟಾಲ್ (ಸ್ಟ್ಯಾಟಿನ್) ಅನ್ನು ನಿಯಂತ್ರಿಸುವ ಔಷಧಿಗಳನ್ನು ಮುಂದುವರಿಸಬೇಕು.	What about reports about Blood Pressure medications increasing severity of COVID-19? After review of available information, the consensus of various scientific societies and expert group of cardiologists is that currently there is no evidence that the two group of drugs- ACE inhibitors (eg. Ramipril, Enalapril and so on) and angiotensin receptor blockers (ARBs) (eg. Losartan, Telmisartan and so on) increase the susceptibility or severity of COVID-19. These drugs are highly effective for heart failure by supporting your heart function and controlling high blood pressure. It may be harmful to stop these medications by yourself. This can worsen your heart condition.

ರಕ್ತದೊತ್ತಡ (ಬಿಪಿ), ರಕ್ತದಲ್ಲಿನ ಸಕ್ಕರೆಯನ್ನು ನಿಯಂತ್ರಿಸಿ ಮತ್ತು ನಿಯಮಿತವಾಗಿ ದೈಹಿಕ ಚಟುವಟಿಕೆಯನ್ನು ಮಾಡಿ.

ನಿಮ್ಮ ಅಪಾಯಕಾರಿ ಅಂಶಗಳ ಮಟ್ಟವನ್ನು ನಿಯಂತ್ರಿಸುವುದು ಸಹ ಮೂಖ್ಯವಾಗಿದೆ. ಧೂಮಪಾನ ಮತ್ತು ಮದ್ಯಪಾನ ತಪ್ಪಿಸಿ. ನಿಮ್ಮ ಬಿಪಿ ಮತ್ತು ರಕ್ತದಲ್ಲಿನ ಸಕ್ಕರೆ ಮಟ್ಟವನ್ನು ನಿಯಂತ್ರಣದಲ್ಲಿಟ್ಟುಕೊಳ್ಳಿ ಮತ್ತು ಕೆಲವು ರೀತಿಯ ದೈಹಿಕ ಚಟುವಟಿಕೆಯನ್ನು ಹೊಂದಿರಿ (ಅದಾಗ್ಯೂ, ದಯವಿಟ್ಟು ನಿಮ್ಮ ಹೊರಗಿನ ಚಟುವಟಿಕೆಗಳನ್ನು ಸಾಮಾಜಿಕ ನಿಯಮಗಳಿಗೆ ಅನುಗುಣವಾಗಿ ಮಾರ್ಪಡಿಸಿ - ಸಾಮಾಜಿಕ ದೂರ). ಸಲಹೆ ಮಾಡಿದಂತೆ ಆಹಾರ ಮತ್ತು ಉಪ್ಪು ನಿರ್ಬಂಧವನ್ನು ಅನುಸರಿಸಿ. ನೀವು ಮಾಂಸಾಹಾರಿಗಳಾಗಿದ್ದರೆ, ನೀವು ಹಾಗೆ ಮುಂದುವರಿಯಬಹುದು.

Control blood pressure (BP), blood sugar and do regular physical activity

It is also important to control your risk factor levels – Avoid smoking and alcohol, have your BP and blood sugar levels under control and have some form of regular physical activity (However, please modify your out-door activities according to the norms of social-distancing.). Follow the diet and salt restriction as advised. If you are a non-vegetarian, you can continue to be so. Increasing the fibre and protein content of the diet and more vegetables and fruits in diet is advisable.

ನಾನು ನೋವು ನಿವಾರಕಗಳನ್ನು ತೆಗೆದುಕೊಳ್ಳಬಹುದೇ?

ಇಬುಪ್ರೋಫೆನ್ ನಂತಹ ಕೆಲವು ರೀತಿಯ ನೋವು ನಿವಾರಕಗಳು (ಎನ್‌ಎಸ್‌ಎಐಡಿಗಳು ಎಂದು ಕರೆಯಲ್ಪಡುತ್ತವೆ) COVID-19 ಸೋಂಕನ್ನು ಇನ್ನಷ್ಟು ಹದಗೆಡಿಸುತ್ತದೆ. ಅಂತಹ ಔಷಧಿಗಳು ಹೃದಯ ವೈಫಲ್ಯದ ರೋಗಿಗಳಿಗೆ ಹಾನಿಕಾರಕವೆಂದು ತಿಳಿದುಬಂದಿದೆ ಮತ್ತು ಹೇಗಾದರೂ ಅದನ್ನು ತಪ್ಪಿಸಬೇಕು. ಆದ್ದರಿಂದ ಎನ್‌ಎಸ್‌ಎಐಡನ್ನು ತಪ್ಪಿಸಲು ಪ್ರಯತ್ನಿಸಿ ಅಥವಾ ನಿಮ್ಮ ವೈದ್ಯರು ಸೂಚಿಸಿದಾಗ ಮಾತ್ರ ತೆಗೆದುಕೊಳ್ಳಿ. ಅಗತ್ಯವಿದ್ದರೆ ಬಳಸುವ ಸುರಕ್ಷಿತ ನೋವು ನಿವಾರಕಗಳಲ್ಲಿ ಪ್ಯಾರಾಸಿಟಮಾಲ್ ಕೂಡ ಒಂದು.

Can I take painkillers?

Some type of pain killers (called NSAIDs) like Ibuprofen is found to worsen the COVID-19. Such drugs are known to be harmful to heart failure patients and may increase your risk of kidney damage. Avoid NSAIDs or take them only when prescribed by your doctor. Paracetamol is one of the safest pain killers to use if needed.

ನನ್ನ ರೋಗಲಕ್ಷಣಗಳನ್ನು ನಾನು ಹದಗೆಡಿಸುತ್ತಿದ್ದೇನೆ ಎಂದು ನಾನು ಭಾವಿಸುತ್ತೇನೆ. ನಾನು ಈಗ ಏನು ಮಾಡಬೇಕು?

ಹೊಸದಾಗಿ, ಉಸಿರಾಟದ ತೊಂದರೆ ಅಥವಾ ಆಯಾಸ ಜಾಸ್ತಿಯಾದ ಸಂದರ್ಭದಲ್ಲಿ ನೀವು ನಿಮ್ಮ ಆಸ್ಪತ್ರೆಯನ್ನು ಸಂಪರ್ಕಿಸಬೇಕು. COVID-19 ಸಹಾಯವಾಣಿ ಸಂಖ್ಯೆ - 1075 ಸೇರಿದಂತೆ ಕಾರ್ಯಸಾಧ್ಯವಾದರೆ ದೂರವಾಣಿ ಸಮಾಲೋಚನೆಯನ್ನು ಪ್ರಯತ್ನಿಸಿ.

What should I do if I get symptoms suggestive of COVID-19?

In case you get fever, cough, muscle pain without shortness of breath, call your doctor and seek advice on phone. You need to stay at home (at least for 14 days) and avoid close contact with other family members and maintain hand hygiene and correctly wear a medical mask.

If there is shortness of breath or worsening symptoms like excessive fatigue call/visit your doctor (further advice will depend on advice of your physician).

COVID-19 ಅನ್ನು ತಡೆಯಲು ನೀವು ಏನು ಮಾಡಬೇಕು?

COVID-19 ಕೆಮ್ಮು ಮತ್ತು ಸೀನುಗಳಿಂದ ಹರಡುತ್ತದೆ. ಹನಿಗಳು / ಫೋಮ್‌ಗಳು ಎಂದು ಕರೆಯಲಾಗುತ್ತದೆ. ವೈರಸ್ ಕಣಗಳನ್ನು ಹೊಂದಿರುವ ವಸ್ತುವನ್ನು ನೀವು ಸ್ಪರ್ಶಿಸಿದಾಗ, ಈ ವೈರಸ್ ನಿಮ್ಮ ಕೈಗೆ ಸಿಗುತ್ತದೆ ಮತ್ತು ನಿಮ್ಮ ಮುಖವನ್ನು ಸ್ಪರ್ಶಿಸಿದಾಗ, ನೀವು ಸೋಂಕಿಗೆ ಒಳಗಾಗಬಹುದು. ವೈದ್ಯರಿಗೆ (>60-65 ವಯಸ್ಕರಿಗೆ) ಬಹಳ ಬೇಗ ಸೋಂಕು ತಗಲುವ ಸಾಧ್ಯತೆ ಇರುತ್ತದೆ. ಆದ್ದರಿಂದ ಮುಂಜಾಗೃತ ಕ್ರಮವಾಗಿ ಎಚ್ಚರ ವಹಿಸಬೇಕು.

What should you do to prevent COVID-19?

Covid-19 is spread by coughs and sneezes, through what are called droplets (tiny amount saliva or other secretions expressed through cough/sneezing or even after a hearty laugh) and through touch. When you touch an object that has the virus particles on it, the virus may get onto your hands and when you touch your face, you may get infected. Virus particles can persist upto 3 days and therefore it is important to maintain hygiene of your surroundings. Wash the rooms, tables and other surfaces with floor cleaners or even simple soap solution and sanitize your hands with hand sanitizers or by washing when you touch unknown or suspicious surfaces.

ಮಧುಮೇಹ ಇರುವವರು COVID-19 ಸೋಂಕಿಗೆ ಹೆಚ್ಚು ಒಳಗಾಗುತ್ತಾರೆಯೇ?

ಸಾಮಾನ್ಯವಾಗಿ, ಅನಿಯಂತ್ರಿತ ಮಧುಮೇಹ ಹೊಂದಿರುವ ಜನರು ಎಲ್ಲಾ ಸೋಂಕುಗಳ ಅಪಾಯವನ್ನು ಹೊಂದಿರುತ್ತಾರೆ ಎಂದು ನಿಮಗೆ ತಿಳಿದಿದೆ. ಮಧುಮೇಹದಿಂದ ಬಳಲುತ್ತಿರುವ ಜನರು ಕರೋನಾ ಸೋಂಕನ್ನು ಪಡೆಯಲು ಹೆಚ್ಚಿನ ಅಪಾಯವನ್ನು ಹೊಂದಿರುವುದಿಲ್ಲ. ಆದರೆ ರೋಗ ಬಂದರೆ ಹೆಚ್ಚು ತೀವ್ರವಾದ ಕಾಯಿಲೆಗೆ ಗುರಿಯಾಗುತ್ತಾರೆ ಮತ್ತು ಬಡ ಫಲಿತಾಂಶಗಳಿಗೆ ಗುರಿಯಾಗುತ್ತಾರೆ. ಆದ್ದರಿಂದ, ಸಾಧ್ಯವಾದಷ್ಟು ಮಟ್ಟಿಗೆ ನಿಮ್ಮ ಆಹಾರ ಮತ್ತು ವ್ಯಾಯಾಮ ದಿನಚರಿಯನ್ನು ಅನುಸರಿಸಿ. ನಿಮ್ಮ ಔಷಧಿಗಳನ್ನು ನಿಯಮಿತವಾಗಿ ತೆಗೆದುಕೊಳ್ಳಿ ಮತ್ತು ನಿಮ್ಮ ಸಕ್ಕರೆ ಮಟ್ಟವನ್ನು ಆಗಾಗ್ಗೆ ಪರೀಕ್ಷಿಸಿ. ಇದರಿಂದ ನಿಮ್ಮ ಮಧುಮೇಹವನ್ನು ನಿಯಂತ್ರಣದಲ್ಲಿಡಬಹುದು.

Are people with diabetes more prone to Covid-19?

In general, you know that people with uncontrolled diabetes are at increased risk of all infections. People with diabetes are not at higher risk for acquiring the infection, but some individuals are prone to more severe disease and poorer outcomes once infected. Hence, follow your diet and exercise routine (to the extent possible), take your medications regularly and test your sugar levels frequently to keep your diabetes under control.

When diabetic patients become sick, they may require frequent monitoring of blood glucose and adjustment of drugs including insulin, small frequent meals, and adequate fluids.

	Some tips for those with diabetes, hypertension and heart disease: Take your medicines regularly - It is important Make sure that you take all medications prescribed regularly as before even if you are mildly symptomatic. Do not stop any medication unless advised by your doctor. Continue with your blood pressure, diabetes, and heart disease medications in case you are unable to visit your doctor. Medications to control cholesterol (statins) should be continued.
ಸೋಂಕನ್ನು ತಡೆಗಟ್ಟಲು ನೀವು ಏನು ಮಾಡಬಹುದು. 1. ಸಾಮಾಜಿಕ ದೂರ - ಬಹಳ ಮುಖ್ಯ ಎ. ಸಂಭವನೀಯ COVID-19ನ ಲಕ್ಷಣಗಳನ್ನು ತೋರಿಸುವ ವ್ಯಕ್ತಿಯೊಂದಿಗೆ ಸಂಪರ್ಕವನ್ನು ತಪ್ಪಿಸಿ. ಸೋಂಕು - ಶೀತ ಅಥವಾ ಕೆಮ್ಮು ಅಥವಾ ಜ್ವರ ಇರುವ ಯಾರಾದರೂ. ಬಿ. ಅನಿವಾರ್ಯವಲ್ಲದ ಪ್ರಯಾಣ ಮತ್ತು ಸಾರ್ವಜನಿಕ ಸಾರಿಗೆಯ ಬಳಕೆಯನ್ನು ತಪ್ಪಿಸಿ. ಸಿ. ಸಾರ್ವಜನಿಕ ಸ್ಥಳಗಳನ್ನು ತಪ್ಪಿಸಿ, ಜನಸಂದಣಿ ಮತ್ತು ದೊಡ್ಡ ಕುಟುಂಬ ಬಟ್ಟಿಗೆ ಸೇರುವುದನ್ನು ತಪ್ಪಿಸಿ. ಸ್ನೇಹಿತರು ಮತ್ತು ಸಂಬಂಧಿಕರು ಸಂಪರ್ಕದಲ್ಲಿರುವುದಕ್ಕೆ ಫೋನ್, ಇಂಟರ್ನೆಟ್ ಮತ್ತು ಸಾಮಾಜಿಕ ಮಾಧ್ಯಮವನ್ನು ಬಳಸಿ. ಡಿ. ಆಸ್ಪತ್ರೆಗಳು / ಲ್ಯಾಬ್‌ಗಳಿಗೆ ದಿನನಿತ್ಯದ ಭೇಟಿಗಳನ್ನು ತಪ್ಪಿಸಿ. ಸಣ್ಣ ಸಮಸ್ಯೆಗಳಿಗೆ ಸಾಧ್ಯವಾದರೆ ಫೋನ್ ಅಥವಾ ಸಹಾಯವಾಣಿ ಸಂಖ್ಯೆ ಮೂಲಕ ಆಸ್ಪತ್ರೆ ಅಥವಾ ಕ್ಷೀಣಿಕವನ್ನು ಸಂಪರ್ಕಿಸಿ. ನೀವು ನಿಯಮಿತವಾಗಿ PT-INR ಅನ್ನು ಪರಿಶೀಲಿಸುತ್ತಿದ್ದರೆ ಮತ್ತು ರಕ್ತ ತೆಳುವಾಗುತ್ತಿರುವ ಔಷಧಿಗಳನ್ನು (ಅಸಿತ್ರೋಮ್ ಅಥವಾ ವಾರ್ಫಾರಿನ್) ತೆಗೆದುಕೊಳ್ಳುತ್ತಿದ್ದರೆ, ದಯವಿಟ್ಟು ಫೋನ್‌ನಲ್ಲಿ ವೈದ್ಯರನ್ನು ಸಂಪರ್ಕಿಸುವುದು ಸಮಂಜಸ. ದಯವಿಟ್ಟು ಆಸ್ಪತ್ರೆಯನ್ನು ಮಾತ್ರ ತಪ್ಪಿಸಿ. 2. ಕೈ ನೈರ್ಮಲ್ಯ ಎ. ಹ್ಯಾಂಡ್‌ಶೇಕ್ ಮತ್ತು ಕೈಗಳಿಂದ ಮುಖವನ್ನು ಸ್ಪರ್ಶಿಸುವುದನ್ನು ತಪ್ಪಿಸಿ. ಬಿ. ನಿಮ್ಮ ಕೈಗಳನ್ನು ಸಾಬೂನು ಮತ್ತು ನೀರಿನಿಂದ ಆಗಾಗ್ಗೆ ತೊಳೆಯಿರಿ - ಇದನ್ನು ಕನಿಷ್ಠ 20 ಸೆಕೆಂಡುಗಳ ಕಾಲ ಮಾಡಿ. ಕೈಯ ಎಲ್ಲಾಭಾಗಗಳನ್ನು ವ್ಯವಸ್ಥಿತವಾಗಿ ಸ್ವಚ್ಛಗೊಳಿಸಿ. ಸಿ. ಆಲ್ಕೋಹಾಲ್ ಆಧಾರಿತ ಹ್ಯಾಂಡ್-ಸ್ಯಾನಿಟೈಸರ್‌ಗಳು ಸಹ ಉಪಯುಕ್ತವಾಗಿವೆ. ಡಿ. ಕಲುಷಿತ ಪ್ರದೇಶಗಳು / ವಸ್ತುಗಳನ್ನು ಸ್ಪರ್ಶಿಸುವುದನ್ನು ತಪ್ಪಿಸಿ - ಸಾರ್ವಜನಿಕ ಶೌಚಾಲಯದ ಬಾಗಿಲುಗಳು, ಬಾಗಿಲ ಕೈ, ಇತ್ಯಾದಿಗಳು.	What are the important steps you can do to prevent acquiring or spreading infection? 1. Social distancing – Very important. A. Avoid contact with someone who shows symptoms of possible COVID-19 - anyone having a cold or cough or fever. B. Avoid non-essential travel and use of public transport. C. Avoid public places, crowds and large family get togethers. Keep in touch with friends and relatives using phone, internet, and social media. D. Avoid routine visits to hospitals / Labs. for minor problems, contact hospital or HF clinic by phone or helpline number if possible. If you are regularly checking INR and adjusting blood thinning medicines, please contact the doctor over phone if possible and try and avoid a hospital as much as possible. 2. Hand hygiene A. Avoid handshakes and touching face with hands B. Wash your hands with soap and water frequently – do this for at least 20-30 seconds and systematically to clean all parts of the hand C. Alcohol based hand-sanitizers are also useful. D. Avoid touching possibly contaminated areas/objects – Public toilet doors, door handles etc.

ಉಲ್ಲೇಖ: Indian Council of Medical Research (ಐಸಿಎಂಆರ್), New Delhi.

KSPC News



Shreedevi College of Pharmacy, Mangaluru

The convocation and annual day celebration of the different institutes of Shree Devi Education Trust such as Pharmacy, Physiotherapy, Nursing and Social work was held at Kudmul Ranga Rao Memorial Town Hall, Mangalore on 20th February 2020. District Surgeon and Superintendent of Wenlock Hospital, Dr. Rajeshwari Devi H. R. inaugurated the function. She expressed

the importance of Mathr devobhava, Acharya devobhava and Loka devobhava. She appealed to the outgoing students to treat the patients in a humane way and advised the students to spend more time in social activities than social media and to become good human beings.

Vice Principal of Father Muller's Medical College Dr. Padmaja Uday Kumar who was the guest, in her address advised to the

students to develop professionalism, ethics and communication skills. She also emphasized the need of identifying the talent in students by the teachers.

Sri. A. Sadananda Shetty, Chairman of Shree Devi Education Trust greeted the students. Sri. Nidhish S Shetty, Vice-Chairman, Smt. Maina S. Shetty, Secretary of the Trust, Pharmacy College Principal and Executive Committee Member, Karnataka State Pharmacy Council Dr. Jagadish V. Kamath, Nursing College Principal Dr. Bibiana, Physiotherapy College Principal Dr. Vijay, Social Work College Principal Smt. Abhita were present on the occasion.



264 students received their degrees and prizes were distributed to the winners in academic and extracurricular events. Smt. Adwin welcomed the gathering and Smt. Rehab delivered vote of thanks. Mr. Mayur and Smt. Disha were in the MC desk. The formal programme was followed by entertainment from talented students.

Webinars

Karnataka State Pharmacy Council has had the reputation of initiating many Continuing Pharmacy Education programs for the benefit of the Registered Pharmacists.

Since due to this COVID 19 pandemic, the Council have taken the initiative to conduct the program through webinars and provide information to Pharmacists who are working at par with other healthcare professionals.

During the pandemic period, council has conducted four webinars respectively. The highlights of the webinars are illustrated below.

1. Drug Information Service - "Usefulness to Community Pharmacists in Patient Care"

2nd Series Webinar was conducted on 4th July 2020 at 3.00 p.m. on the topic **"Drug Information Service - "Usefulness to Community Pharmacists in Patient Care"**.

Sri.Gangadhar V. Yavagal, President, KSPC welcomed all the resource persons and the participants for the webinar. Mr.Samson P. George, Deputy Registrar cum Drug Information Pharmacist introduced the speakers to all the participants.

The webinar was presented by expert Academic Pharmacists

who have carved a niche for themselves in their chosen areas.

Dr.Ramesh Adepu, Principal & H.O.D of Pharmacy Practice, Vikas College of Pharmaceutical Sciences, Hyderabad highlighted on the main topic on "Drug Information Service". Prof. Ramesh K Goyal, Vice-Chancellor, Delhi Pharmaceutical Sciences & Research University, Delhi highlighted about the "Challenges in Drug Information related to COVID 19 pandemic". Dr.E. Maheswari, Prof. & HOD of Pharmacy Practice, Ramaiah University of Applied Sciences, Bangalore delivered a lecture on "Poly Pharmacy & Deprescribing". Dr.Vithya T., Asst. Professor, Department of Pharmacy Practice, Al-Ameen College of Pharmacy, Bangalore on "How a Pharmacist should identify an Adverse Drug Reaction and how to report". The question and answer session was headed by Mr.Samson and concluding remarks were given by the President.

Around 2977 pharmacists registered and more than 400 attended the webinar. E-attendance were collected, and feedback form was sent through mail for those participants who have submitted the attendance form. The E-Certificate was mailed for all those who have submitted the feedback form.

2. Drug Abuse and Illicit Trafficking - Pull the Plug

On the occasion of "International Day against Drug Abuse and Illicit Trafficking", Karnataka State Pharmacy Council in association with Karnataka Pharm.D Association®, Bengaluru organised a webinar on 26th June 2020 at 03.00 p.m. on **"Drug Abuse and Illicit Trafficking -Pull the Plug on Drugs"**. The theme for 2020 was **'Better Knowledge for Better Care'**. Mr.Samson P. George, Deputy Registrar cum Drug Information Pharmacist was the main speaker for this webinar and he highlighted on the Role of Pharmacist in preventing substance abuse in the society.

More than 650 participants attended the webinar. The E-Certificate was sent through mail to all those who attended the webinar.

3. Clinical Pharma Practice -Indian & Global Scenario (CPP-IGS 2020)

4th National level webinar was organized by Department of Pharmacy Practice, Swamy Vivekanandha College of Pharmacy, Tamilnadu on 26th June 2020 at 11.45 a.m. Mr.Samson P George, Deputy Registrar cum Drug Information Pharmacist was the speaker of this webinar. He highlighted on the topic of **"Role of Pharmacists in COVID-19 and Tech Updates"**.

Dr.G.Muruganathan, Principal, Swamy Vivekanandha College of Pharmacy was the convener and Dr.M.Rangapriya, Prof. & Head, Department of Pharmacy Practice, Swamy Vivekanandha College of Pharmacy was the organizing secretary for the webinar.

More than 250 participants including, professors, lecturers' and students attended the webinar.

4. Importance of knowledge updation for Community and Hospital pharmacists

The webinar was conducted in co-ordination with Group Pharmaceuticals, Bengaluru on 8th May 2020 at 3.00 p.m. on **"Importance of knowledge updation for Community and Hospital pharmacists"**.

Sri.Gangadhar V. Yavagal, President, KSPC introduced and welcomed all the resource persons and the participants for the webinar.

Mr.Sunil Chiplunkar, VP – Business Development, Group Pharmaceuticals Ltd., Bengaluru was the moderator of this webinar. Dr Gayathri Devi, Consultant, KSPC provided General awareness, Do's and Don'ts to be followed by the Pharmacists,

during this pandemic. Mr.Samson P. George, Deputy Registrar cum Drug Information Pharmacist touched upon advice to be provided to a special population of patients, in a bid to safeguard their health in this fragile situation. Mr. Manoj Kumar, IT Consultant, KSPC discussed on how Pharmacists can be equipped themselves through technology, so that life goes on, in spite of the pandemic. The concluding remarks were given by Mr.Sunil Attavar, President, Karnataka Drugs and Pharmaceuticals Manufacturer's Association (KDPMA), Bengaluru.

More than 2200 participants from various pharmacy fields participated in this webinar. Feedback forms were mailed to all the participants who attended the webinar. E-Certificate was mailed for those participants who submitted the feedback form.



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