



ashp Accredited



Shaukat Khanum Memorial Cancer Hospital and Research Center

Pharmacy Newsletter

Special Edition – Corona Virus / COVID -19

Volume X, Issue # 1, 2020

Issued By:

Drug Information Centre, SKMCH & RC

P&TC Updates:

Following drugs are approved by Pharmacy & Therapeutics Committee (P&TC) during 2020 SKMCH&RC:

1. **Indomethacin Caps.** Restricted by service.

Following MMU policies were updated / included

1. **Policy on Intrathecal (IT) Medications**
2. **Policy on Oral Chemotherapy Workflow**
3. **Policy on Chemotherapy Associated Hypersensitivity**
4. **Policy on Chemotherapy Extravasation**

COVID – 19 Edition

Coronavirus disease 2019 (COVID-19) is a respiratory illness caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) first reported in Wuhan, China, that is now spreading in more than 200 countries across the globe.



Chloroquine and Hydroxychloroquine: Old Weapons with New Target

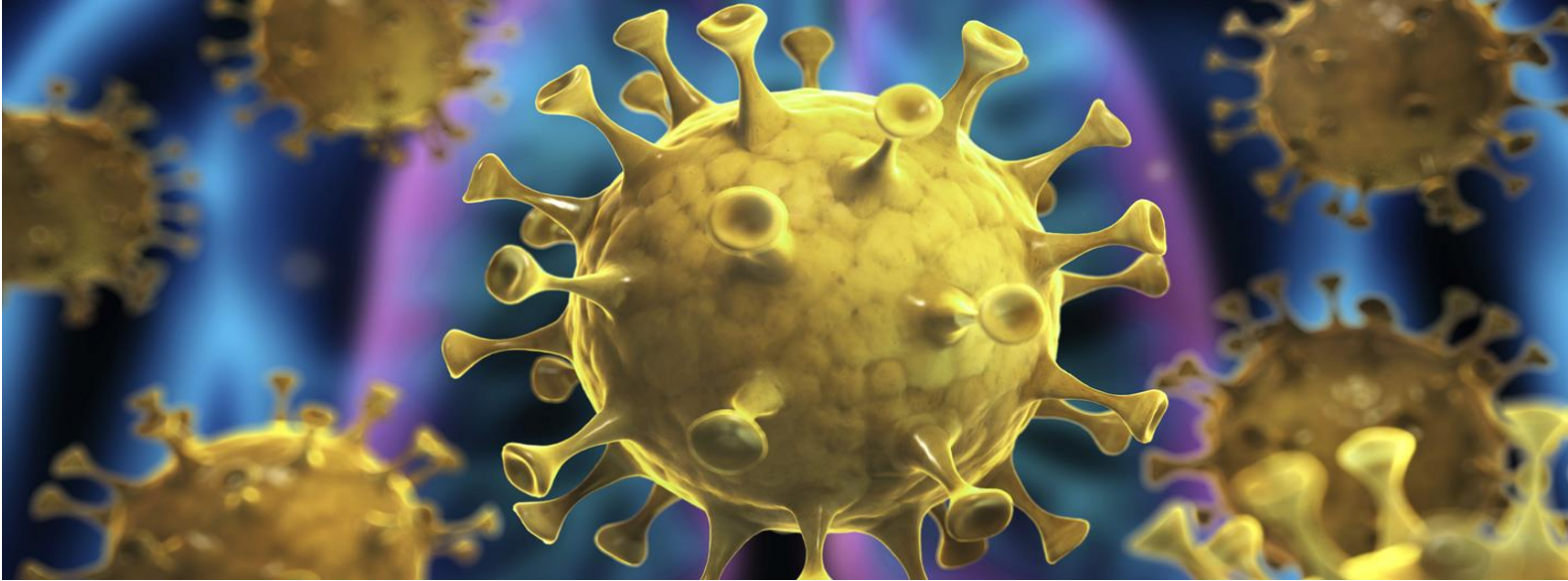
The COVID-19 outbreak emerged from china of has been declared as pandemic by WHO. Throughout the world, scientists are trying to find a cure of the disease. An efficient approach to this is to test whether the existing antiviral drugs are effective in treating this viral infection. Previously, an already approved drug for its antimalarial effects, chloroquine showed its high efficacy against one type of HCoV-OC43 infection in new born mice¹. Thus in a recent study, promising effects of chloroquine in vitro have been demonstrated. These effects are attributed to block of virus infection by increasing endosomal pH required for virus cell fusion as well as interfering with the glycosylation of cellular receptors of SARS-CoV². Another recent study showed in vitro antiviral activity of hydroxychloroquine and came up with dosing recommendations as well on the foundation of physiologically based pharmacokinetic models³.



Results of these studies along with others are encouraging not only for immediate future clinical trials to identify such unrevealed spectrum of these old weapons but also has led to the issuance of emergency use authorization (EUA) by US-FDA to permit the emergency use of chloroquine phosphate⁴ & hydroxychloroquine sulphate⁵ to treat adults and adolescents who weigh 50 kg or more and are hospitalized with COVID-19 for whom a clinical trial is not available, or participation is not feasible.

Ref:

- 1) Keyaerts, E., Li, S., Vijgen, L., Rysman, E., Verbeeck, J., Van Ranst, M., & Maes, P. (2009). Antiviral activity of chloroquine against human coronavirus OC43 infection in newborn mice. *Antimicrobial agents and chemotherapy*, 53(8), 3416-3421.
- 2) Wang, M., Cao, R., Zhang, L., Yang, X., Liu, J., Xu, M., ... & Xiao, G. (2020). Remdesivir and chloroquine effectively inhibit the recently emerged novel coronavirus (2019-nCoV) in vitro. *Cell research*, 30(3), 269-271.
- 3) Yao, X., Ye, F., Zhang, M., Cui, C., Huang, B., Niu, P., ... & Zhan, S. (2020). In Vitro Antiviral Activity and Projection of Optimized Dosing Design of Hydroxychloroquine for the Treatment of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). *Clinical Infectious Diseases*.
- 4) <https://www.fda.gov/media/136535/download>
- 5) <https://www.fda.gov/media/136537/download>



Stewardship of Off-Label Treatments for COVID-19

The COVID-19 pandemic has become a public health emergency. While researchers are working to find a treatment for the infection, no medication is currently FDA-approved to treat COVID-19. Novel drugs like remdesivir are currently being studied and some drugs that are already FDA-approved for other indications are being tried as off-label treatments of COVID-19.



During this crisis, there is understandable concern over the health and safety of loved ones. However, inappropriate prescribing of these experimental treatments to have “just in case” or for patients who are not at high risk of severe illness may lead to an inadequate supply of medications for those who need them most. Similarly, stocking up and hoarding can also create shortages or exacerbate existing shortages.

Following recommendations should be used as a general guide for prescribers, pharmacists, and patients when considering the appropriate use of experimental treatments. These especially include azithromycin, chloroquine, and hydroxychloroquine, but also include baloxavir, lopinavir and ritonavir, oseltamivir, remdesivir, sarilumab, tocilizumab, and sirolimus.

<p>Recommendation 1 Any prescription or medication order for a drug that is also being investigated for the off-label treatment of COVID-19 should be reviewed for appropriateness</p>	<p>Recommendation 2 Prescriptions or medication orders for the off-label treatment of confirmed COVID-19 patients should be prioritized for inpatient use and limited in duration of treatment</p>
<p>Recommendation 3 Inventory of drugs being studied for the treatment of COVID-19 should be maintained responsibly</p>	<p>Recommendation 4 Patients already taking medications being studied for off-label treatment of COVID-19 should not stock-up or hoard medications</p>

ASHP: <https://www.ashp.org/Coronavirus>

Assessment of Evidence for COVID-19 Related Treatments

ASHP provides this evidence-based table of drugs / treatments to help practitioners better understand current approaches related to treatment and care – Please see attached subsidiary document.

First Shot Injected to First Volunteer: The COVID-19 Vaccine



Researchers in U.S. gave the first shot to the first volunteer in a test of an experimental COVID-19 vaccine. In this new phase 1 clinical trial, the aim is to assess the safety, reactogenicity and immunogenicity of vaccine developed by ModernaTX, Inc. across 3 dosages in healthy adults. The vaccine mRNA-1273, that encodes for a full-length, prefusion stabilized spike (S) protein of 2019-novel coronavirus (nCoV), will be injected to 45 healthy volunteers into one of three cohorts (25 microgram [mcg], 100 mcg, 250 mcg) via IM injection on Days 1 and 29 in the deltoid muscle and will be followed through 12 months post second vaccination (Day 394).

Ref: <https://clinicaltrials.gov/ct2/show/NCT04283461>

COVID-19 Challenge & Pharmacy SKMCH & RC

The global outbreak of COVID-19 has affected drastically not only the clinical but also the economic measures of the entire world. To cope with the current scenario, every individual is required to play the crucial role to save the mankind. Just like rest of world, department of pharmaceutical services SKMCH & RC has a dedicated team of pharmacists, residents, pharmacy technicians and pharmacy assistants, who are very much keen to serve the humanity. The department joined the race against COVID-19 and took serious measures to break the chain of the virus. With a devoted team and high spirits, we will be able to win the war against coronavirus.

Preparation of Hand Sanitizer

Necessary Medicine Stock Keeping

Restriction on Drug Prescribing

Dedicated pharmacists to cover ICU's

Social Distancing Practice Adherence

Public Awareness Brochure



"I'll shake your hand as soon as I'm done downloading this hand sanitizer app."



Sharing is caring:

Clinical Pharmacy Services in Paediatric Oncology



Department of pharmaceutical services proudly presents the highlights of workshop held by Pakistan Society of Paediatric Oncology. In this auspicious event held on 23rd February 2020 at SKMCH & RC, the guest speaker spotlighted the clinical and legal challenges in paediatric oncology pharmacy practice. Another speaker presented a talk on the role of paediatric oncology pharmacist at a tertiary care hospital. The necessity of future advancements in aseptic policies and procedures was highlighted for the insight of audience.

How to Keep Your Community Pharmacy Running During COVID-19 Pandemic – FIP Initiative

Unlike many other public services and businesses, community pharmacies will continue to stay open during the COVID-19 pandemic to deliver essential counselling, information and medicines supply to patients and local communities. With a significant increase in demand for medicines, coupled with a change in public behaviour — such as panic buying over-the-counter painkillers and routinely prescribed medications in advance in response to the lockdown — is going to put tremendous pressure on pharmacy teams.

Pharmacists at community can implement guidance and best practices in response to the rapidly changing COVID-19 pandemic to ensure patient and staff safety.

International federation of pharmacist (FIP) and local authorities designed guideline for pharmacies working during this pandemic.

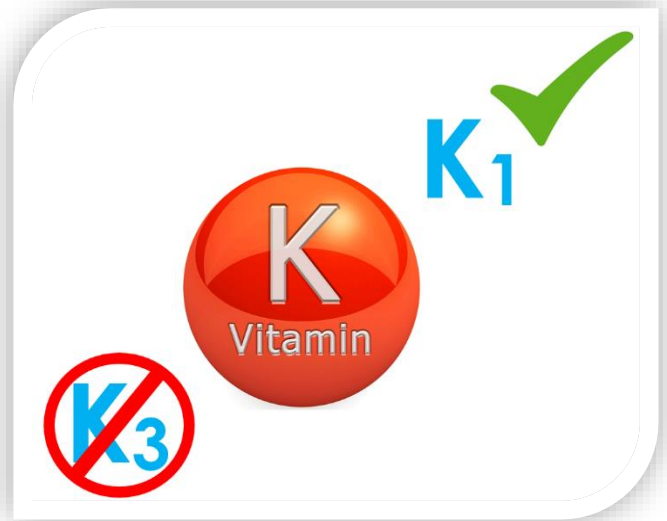
- 1 Pharmacy Signage**
Have a banner/standee at the pharmacy entrance advising patients not to enter the pharmacy if they are displaying any signs or symptoms of COVID-19. Signpost patients to contact the COVID-19 Helpline 1166 or to contact COVID-19 designated hospitals.
- 2 Wash your hands**
Regularly wash your hands with soap and water for at least 20 seconds or use an alcohol based rub. Use WHO 7 steps of hand-washing technique. Provide hand gels at the pharmacy counter for the public.
- 3 Self-Isolate**
If you have a new cough and/ or a fever DO NOT come to work and self-isolate for 7 days or until when symptoms get better.
- 4 Social Distance**
Maintain a 1 meter distance between yourself and patients when taking in and giving out prescriptions. Consider restricting the number of patients who can enter your pharmacy at one time.
- 5 Face Masks**
Only wear a mask if you are in contact with a patient who may have COVID-19. Disposable face masks can only be used once.
- 6 Prescription Handling**
Wear disposable gloves in the pharmacy. Ensure you change your gloves every time you handle a new prescription.
- 7 Mobile Phones Rx Handling**
Encourage patients to sanitize mobile phones with alcohol wipes available at the pharmacy counter, before you handle the mobile.
- 8 Cash/PC Handling**
Cash should be strictly handled with gloves and should be changed after every hour. Handling of medicines and cash should not be done by the same member of staff simultaneously. Use gloves to operate keyboards.
- 9 Sanitation of Premises**
All surfaces including appliances, shelving, medicines packaging, computers, telephones should be sanitized on a regular basis using a rota system.
- 10 COVID-19 Testing**
Testing will only take place at designated areas. If a patient has recently traveled from a COVID-19 high prevalent area AND is displaying symptoms of fever or persistent cough.

Logos at the bottom include: fip, PHARMACEUTICAL SOCIETY OF PAKISTAN, doctHERs, and other organizational logos.

News & Update:

Vitamin K3 Recall:

Unlike the natural forms of vitamin K, like Vitamin K1 phytonadione, the synthetic forms of Vitamin K—K3 menadione have shown to be harmful to human health. Higher doses reported with allergic reactions, haemolytic anemia, and hepatotoxicity. The U. S. Food and Drug Administration, hence, has banned all synthetic forms of vitamin K. Following this action, Drug Regulatory Authority in Pakistan (DRAP), has cancelled the registration for menadione in Pakistan. Thus, the department of pharmaceutical services at SKMCH has initiated its protocol for drug recall for this drug and withdrawn it from shelves.



Final Rule Banning Electrical Stimulation Devices (ESDs): Says FDA

The U.S. Food and Drug Administration (FDA) issued a final rule banning electrical stimulation devices (ESDs) used for self-injurious or aggressive behaviour because they present an unreasonable and substantial risk of illness or injury that cannot be corrected or eliminated through new or updated device labelling.

These devices are associated with an extensive list of potentially serious psychological harms and physical risks, including depression, anxiety, worsening of underlying symptoms, development of post-traumatic stress disorder (PTSD), pain, burns, and tissue damage. FDA suspects that many people who are exposed to these devices have intellectual or developmental disabilities that make it difficult for them to communicate their pain or make their own treatment decisions. As these risks cannot be corrected or eliminated by labelling or a change in labelling, banning the product is necessary to protect public health

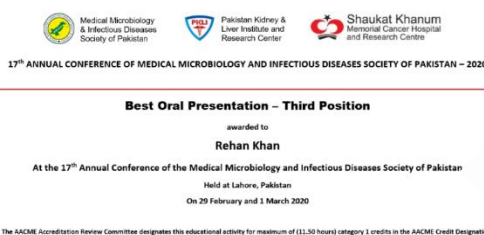
Serious Mental Health Side Effects: Montelukast Boxed Warning

The U.S. Food and Drug Administration (FDA) is strengthening existing warnings about serious behaviour and mood-related changes with montelukast. Montelukast prescribing information already includes warnings about mental health side effects; however, many health care professionals and patients/caregivers are not aware of the risk. FDA suggests that a stronger warning is needed after conducting an extensive review of available information and therefore determined that a boxed warning was appropriate. Because of the risk of mental health side effects, the benefits of montelukast may not outweigh the risks in some patients, particularly when the symptoms of disease may be mild and adequately treated with other medicines.

Oral Presentation Award: MMIDSP 17th Annual Conference 2020

Muhammad Rehan Khan

Assistant Manager Clinical Pharmacy Services
ASHP Preceptor- Infectious Diseases & Internal
Medicine



Prof. Dr. Bushra Jamil
President MMIDSP

Dr. Ahsan Ahmed
Chair MMIDSP Conference 2020

Prof. Dr. Fakal Sultan
Patron in Chief Conference 2020

