



Need for Recognition of Pharmacists as Front Liners in Covid-19 Pandemic: An Indian Perspective

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ABSTRACT

Novel Coronavirus Disease 2019 or Covid-19 Pandemic has become a globally recognized public-health phenomenon. As of September 2020, over 30 million people have been affected worldwide, and more than 1 million deaths have been registered. Healthcare professionals & researchers around the world are working hand in hand to find a vaccine or an efficient cure for this disease. Till then, a large part of the globe remains under lock down, and people are advised to follow certain guidelines like social distancing, practicing hand hygiene, etc. Pharmacists are one of the key healthcare workers who are working to fight this Pandemic. This commentary is an effort to describe their role in combating this Pandemic in a developing nation India. They are responsible for manufacturing/ supplying/dispensing of drugs to the ailing patients in the hospitals and community. In rural areas, pharmacists are expected to provide medical guidance. They play a vital role in medical information services within the hospital, along with providing Pharmacovigilance activities related to Covid-19 drugs. The essentiality of the presence of clinical pharmacists is being felt increasingly in India, where the healthcare workforce is limited. The safety of these caregivers during this Pandemic should be a priority so that this healthcare force can be efficiently utilized in managing the Pandemic in the country in the coming days.



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INTRODUCTION

In the year 2019, the month of December, the spread of a viral infection that was first reported from

the Wuhan, Hubei Province of China. The virus was causing severe respiratory symptom and was from the preexisting virus family known as corona viruses, which has earlier caused Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS) in the year 2003 and 2012 respectively. The present corona virus infection is named as novel corona virus 2019 (nCoV-19) or as SARS-Covid-2 or Covid-19. The first cases of Covid-19 reported were linked to the Huanan Seafood Wholesale Market, & the WHO declared it as a pandemic on 11th March 2020. The Covid-19 Pandemic has become a globally recognized public-health phenomenon ([World Health Organization, 2020](https://www.who.int/news-room/feature-stories/covid-19)). As of September 2020, numbers of confirmed cases worldwide were 30 million and around 1 million death cases were registered. But this number is

probably much less than the actual number of cases as several cases may have gone unrecognized. As of September 2020, the Government of India has reported 5 million people to be infected and 0.1 million deaths ([World Health Organization, 2020](#)).

Cough, shortness of breath, fever, tiredness and diarrhoea have been typical symptoms of Covid-19, ranging from asymptomatic to severe infection, which led to pulmonary disease, respiratory failure, and death ([Zheng et al., 2020](#)). The disease transmission can spread via droplet, aerosol sprayed by an infected person while sneezing and surface contamination of any objects. Many people can unknowingly acquire Covid-19 when they touch their eyes, nose, or mouth after touching any infected surfaces. Therefore, social distancing becomes mandatory to stop the spread of the infection ([Gross and MacDougall, 2020](#)). The latest statistics show that the highest risk for death is for older people or those with comorbid conditions such as hypertension, diabetes or any other immunodeficient conditions.

Due to the lack of personal protective equipment (PPE) and adequate medication therapies, there have been hindrances in systematically containing the disease. Pharmacists play a crucial and unique role within the healthcare team in improving patient treatment during this Covid-19 Pandemic. We are aiming to address the role of pharmacists during this Covid-19 Pandemic to encourage successful prevention, control and safe usage of drugs by the patient community.

Pharmacy services and patient based needs during the Pandemic Covid-19

During the Covid-19 Pandemic, the need for pharmacy services goes beyond the conventional practice of local pharmaceutical practitioners. The pharmacist can be slip into groups based on their degree, training and experience. All the components of pharmacist are at the urgent need of the hour. Pharmacist having Diploma in Pharmacy (D.Pharm) and Bachelor of Pharmacy (B.Pharm) may work as a community pharmacist, industrial pharmacist and drug supply chain Pharmacist as per their skill and experience, pharmacist having Master degree and PhD in Pharmaceutical Sciences can involve themselves in Industrial Pharmacy and Research & Development. Doctor of Pharmacy (Pharm.D) graduates and interns can be heavily utilized as a front line task force in screening and managing Covid-19 patients.

The pharmacists have one of the essential functions to ensure that the most appropriate and efficient care is available on time. In the wake of the Covid-19 Pandemic, drug specialists will prepare, define, and

mitigate medication shortages. The fact that drug shortages can lead to sub-optimal therapy prescription and patient harm can be essential.

Roles of Hospital Pharmacist

Hospital Pharmacist plays an essential role in maintaining proper functioning of the in-patient and out-patient pharmacy of the hospital

1. Maintaining, adequate stock of life-saving drugs and other medicinal products
2. Maintaining adequate stock of PPE, and monitor the accountability & judicious use of PPE and also the safe disposal of PPE.
3. Ensuring the safe use of the medications provided
4. Promoting prevention and infection control in hospitals
5. Collaborate with other healthcare professionals in patient care
6. Promoting drug safety and pharmacovigilance

Role of Community Pharmacist

Pharmacists have contributed to improving public health across the globe in a variety of ways, including immunizations, health promotion, health education, patient and medication counseling, medication reconciliation, disease self-management training, point-of-care testing, screenings, and EP&R disaster management. International, national and state pharmacy organizations have supported public health pharmacy, including EP&R efforts ([Coronavirus preparedness, 2020](#)). The International Pharmaceutical Federation (FIP) recently released an extensive document guiding pharmacy professionals related to Covid-19 measures in the pharmacy workforce, including a list of resources in eight different languages ([International Pharmaceutical Federation, 2020](#)).

Community Pharmacists can play a pivotal role in containing the spread of the infection among the community.

1. Screen the patient for common symptoms of Covid-19 and can refer the patient to the physician/hospital for further diagnosis and management.
2. They shall also establish a collaborative relationship with its surrounding fever clinics and designated Covid-19 medical institutions for mutual patient information sharing during transitions of care. It can happen both ways.

3. They can make extra efforts to identify suspected patients based on clinical symptoms such as coughing and fatigue, and epidemiological history such as travel history, contact with Covid-19 positive in the past fourteen days ([World Health Organization, 2020](#)).
4. Maintain adequate stock of the essential medicine, other medicinal products and Covid-19 preventative products (e.g. masks, alcohol-based hand rubs).
5. Proper dispensing of drugs as per prescription to avoid misuse and panic buying, during the lock down situation, which may lead to stock out of the drug.
6. Maintain a record of patients who have been dispensed drugs for Covid-19.
7. Community Pharmacist should promote the prevention methods for the infection using social media platform and if possible, display audiovisual clippings about prevention of infection in their community pharmacy premise and should also maintain the social distancing measures while running their regular business.
8. They should educate the patients that there is no effective vaccine or targeting a therapeutic agent for Covid-19 prevention or treatment at present. Advise them to follow a physician's treatment plan and avoid blind use of medications or so-called "wonder drugs".
9. They may offer medication reconciliation, consultation and home care guidance for these patients to support their recovery at home. While the home delivery services are a better option to avoid the large crowd at the pharmacy, safety precautions such as PPE, maintain safe distance needs to be followed.
10. During the Covid-19 Pandemic, these community pharmacists can actively guide patient community population on chronic disease management to improve patients' medication adherence and support their self-monitoring of the effectiveness and safety of current therapy.
2. While investigational drug pharmacists play a significant role here, active involvement of those practicing in infectious diseases, information technology, critical care, distribution, and management can streamline the process and speed the time to therapy for study patients ([Zheng et al., 2020](#)).
3. Preparation of Institutional standard treatment guidelines for the management of Covid-19 in consultation with infectious diseases, critical care and general medicine consultants. Clinical Pharmacists serves as a vital member of the critical care team for dosing adjustments in critically ill Covid-19 patients.
4. At present, antivirals, symptomatic and supportive treatment based on the clinical condition is advised in the treatment protocol. Some of the medicines that are on used to treat the Covid-19 patients includes α -Interferon, lopinavir/ritonavir, remdesivir, favipiravir, ivermectin, chloroquine phosphate, tocilizumab, hydroxychloroquine, azithromycin, vitamin C & D, zinc and anticoagulation. The dosing regimen for the medicines as mentioned above, should be carefully formulated and their use closely monitored for safety and effectiveness ([Gross and MacDougall, 2020](#)).
5. Clinical pharmacists should also monitor prophylaxis usage of hydroxychloroquine in hospital staff as guideline given by Ministry of Health & Family Welfare. They should also screen for patients to whom the hydroxychloroquine can be given based on drug-interaction, contraindication and other medical conditions. As per the ICMR advisory, safety data needs to be maintained for hydroxychloroquine usage. They should also work on drug safety and pharmacovigilance, monitoring and reporting adverse drug reaction of drugs used in the prophylaxis and treatment of Covid-19.
6. A clinical pharmacist can also take part in clinical trials of an upcoming drug/vaccine for the treatment of Covid-19, such as convalescent plasma therapy.
7. Patient Counseling becomes an important aspect to avoid panic-induced excess buying of essential drugs. Also, patients can be instructed through virtual counselling regarding drugs, disease and lifestyle to reduce the unnecessary visit of the patient to the hospital.

Role of Clinical Pharmacist

1. A clinical pharmacist can be utilized as Covid-19 front-liner for screening and management of the Covid-19 with other healthcare professionals.

8. A clinical pharmacist can be involved in the proper functioning of Drug Information Center (DIC) through the virtual platform so that maximum drug and also Covid-19 related queries can be addressed which will be also helpful for the patient to collect information on self-administration of medications. Medical information dissemination to personnel after screening newly published literature on drug usage in Covid-19.
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CONCLUSION

Pharmacists are playing an essential role during this Covid-19 crisis in a developing country like India. They are the people who are in charge of not only dispensing the drugs that are essential for the survival of ailing persons but also responsible for the rational and judicious use of the same and maintain adequate supplies. Even in emergencies, general people tend to resort to pharmacists, especially in rural areas due to lack of easy access to doctors. Visiting hospitals is also difficult because of extensive lockdowns, and hence the role of the community pharmacist in terms of doorstep pharmacy services and screening while being quarantined also becomes essential. Clinical pharmacists are qualified to provide drug-related information whenever needed. During this Covid-19 Pandemic, demand for clinical pharmacists has come into the forefront, and the necessity to incorporate their skills more in healthcare services are being felt increasingly. Moreover, the safety protocols for the pharmacists are also to be kept in minds who are working tirelessly alongside the doctors and other healthcare professionals to fight this disease in search of a better and healthier future.

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Conflict of Interest

The authors declare that they have no conflict of interest for this study.

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