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COVID-19 PANDEMIC- OUTBREAK CONTROL BY PHARMACY PROFESSIONALS

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ABSTRACT

As we battle the pandemic of corona virus disease 2019 caused by the novel severe acute respiratory syndrome corona virus 2 (SARS-CoV-2) presents an unprecedented challenge we observed all over the global and the national level pharmacy professionals are performing outbreak roles, this editorial highlights the role of pharmacists in the COVID – 19 pandemic. Pharmacists globally are providing services again COVID -19 including pharmacy services, seeing patients and reducing the patients' burden on health care facilities such as hospitals and pharmaceutical profession practices. Pharmacists are also working to providing home deliveries, as well as dealing with the increasing number of patients coming through to pharmacies with the other ailments. Pharmacy associations have issued their guidelines and in this editorial, several global examples of pharmacists' role in the COVID 19 are being discussed. pharmacy guidance educates community pharmacies for safety and standard operation as the number of patients in the country continues to rise The results of pharmacy profession work gratification from the perception that performs its task, or allows the execution of its own important values job, provided that to extent that these values are comparable to their needs. Conclusion the need of pharmaceutical care services in COVID-19 hospitalized patient during this pandemic was quite distinguished shall join the collaborative multidisciplinary team to improve COVID-19 patients outcome and reduce mortality, and to facilitate the pandemic control.

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INTRODUCTION

Corona virus is a huge viral family that causes a wide range of diseases, from colds to severe infections like SARS and MERS-COV. Corona virus is a brand-new viral strain that has never been seen or diagnosed in humans. The most common symptoms for patients infected with COVID-19 are fever, cough, difficulty breathing, fatigue, and headache.⁴ Most symptomatic patients will develop mild symptoms. However, some patients may progress to serious illness, such pneumonia, acute respiratory distress syndrome, multi organ dysfunction and even death.⁵ So far, there are no proven effective treatments against COVID-19 and widespread effort is being devoted towards the development of a safe vaccine.³ Thus, the population must follow recommendations to decrease the transmission of SARS-CoV-2, including social distancing, wearing masks and strict hand hygiene.⁶

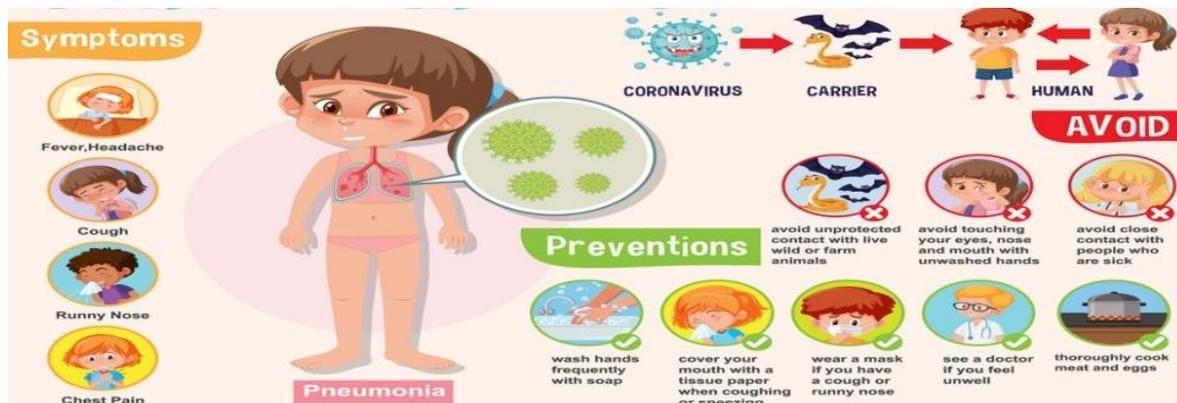


Figure no-1.

The Coronavirus Disease 2019 (COVID-19) is an infection caused by the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) first emerged in Wuhan (China) in December 2019, spreading rapidly across the world.¹ On the 11th of March 2020, the World Health Organization (WHO) declared COVID-19 a pandemic.² At the time of writing there have been 10 million cases of COVID-19 reported globally, with more than 500 000 deaths reported across 216 countries.³ Currently, the COVID-19 pandemic is a major public health problem worldwide. While millions of people are in their homes in order to decrease the risk of transmission of the infection, health workers are on the frontline against COVID-19.² These professionals are committed to ensuring that the population have access to health services and to minimize the adverse impact of the pandemic. Given the seriousness of the coronavirus outbreaks, health professionals with expertise in public health are essential.

As healthcare professionals, pharmacists can play key role during the pandemic, acting directly with the community,⁸ continuing to care for patients with chronic diseases,^{9, 10} working in hospital pharmacies and providing pharmaceutical care to COVID-19 patients.¹¹ Moreover, they may provide reliable information for preventing, detecting, treating and managing coronavirus infections.^{12, 13} As a result, several challenges have emerged and innovative strategies are being adopted by pharmacists to overcome them.

Since the beginning of the outbreak, many guidelines have been published with recommendations for pharmacists as well as their responsibilities during the pandemic. However, few describe pharmacists' experiences in this novel context. Therefore, this scoping review is aimed to identify and describe core services provided by the pharmacist during the COVID-19 pandemic.

AIM

- To give up-to-date information and recommendations on the covid-19 pandemic.
- To aid pharmacists and pharmacy staff in avoiding the spread of the illness, to contribute to its effective management in the healthcare system,
- To study and produce medication and vaccines to combat the disease.
- To conduct illness research and development,
- To supply diagnostic kits and related equipment to industrial sectors.
- During covid-19 testing and other close contact pharmacy care services, the goal is to decrease risk.

METHOD

Collect and summarise community pharmacy services during the COVID-19 epidemic, and evaluate and explain the techniques and tactics that community pharmacies and pharmacists will employ to offer healthcare during the pandemic, taking patients' pharmaceutical care needs into account.

COMMUNITY PHARMACISTS

Pharmacists have traditionally been the most accessible health-care providers, and this is even more true now that COVID-19 is in effect. Despite tougher lockout limitations, community pharmacies remained accessible to the public while other professionals closed their doors to patients. Community pharmacists, as highly trusted healthcare clinicians, play a critical role in filling the gaps that are exacerbated by the increased load on the system and decreased access to healthcare providers.¹⁴ Community pharmacies in low- and middle-income countries provide free medical advice to people who cannot afford to pay physician costs. Despite a scarcity of personal protective equipment at first, pharmacy employees continued to provide direct patient care. The key responsibilities of frontline community pharmacists include delivering medications to patients free of charge, assessing patients who require chronic medication renewal, performing consultations on minor ailments, clarifying misconceptions about COVID-19 treatments, and contributing to COVID-19 screening.¹⁵

HOSPITAL PHARMACISTS

The public is also overlooking the function of hospital pharmacists during this pandemic. Hospital pharmacists participate to COVID-19 management procedures with ICU nurses, physicians, and respiratory therapists by engaging in inpatient rounds and ensuring enough drug supply to sustain ICU beds. While addressing significant medication shortages by using conservation methods and alternate sourcing Hospital pharmacists are actively involved in planning and responding to pathogen outbreaks as part of antimicrobial stewardship programmes, which is especially important during COVID-19. Hospital pharmacists have been active in establishing local treatment regimens that recycle antivirals and monitoring the use of antibiotics in situations of bacterial co-infections in COVID-19 patients as part of antimicrobial stewardship initiatives. In addition, pharmacists may assist in the interpretation of COVID-19 test findings, the exploration of new pharmacological treatments or applications, and the provision of medication management recommendations. The role of hospital pharmacists during this pandemic is also being overlooked by the public. Alongside ICU nurses, physicians, and respiratory therapists, hospital pharmacists contribute to COVID-19 management protocols by participating in inpatient rounds, ensuring sufficient medication supply to support ICU beds while managing critical drug shortages through the implementation of conservation strategies and sourcing alternatives Hospital pharmacists participate in antimicrobial stewardship programs; thus are directly involved in planning and responding to pathogen outbreaks, which is of heightened importance during COVID-19. As part of antimicrobial stewardship programs, hospital pharmacists have been involved in developing local treatment protocols that repurpose antivirals and monitoring the use of antibiotics in cases of bacterial co-infections in COVID-19 patients. In addition, pharmacists can help interpret test results for COVID-19, explore new drug therapies or uses, and provide medication management recommendations to their colleagues¹⁵ While there is no current cure for COVID-19, potential treatment options like hydroxy-chloroquine, methylprednisolone, and remdesivir are being evaluated in clinical trials. Hospital pharmacists can help with the enrolment of infected patients for these types of studies the key roles of frontline hospital pharmacists. Because of various roles hospital pharmacists play in the effort against COVID-19, they are constantly exposed to the virus. However, they manage to complete their responsibilities similarly to their co-workers without the same recognition as frontline workers.

INDUSTRIAL PHARMACIST

The hidden but most important sector is pharmaceuticals industry and their respective pharmacist and workers. Multiple Role of Pharmacist to Tackle Over Covid-19: Frontline Healthcare Professionals great achievement of pharma-industries all doctors pharmacists smoothly conducting services. in the devastating situation smooth supply of proper medicines, surgical items, masks, sanitizer help proper controlling of covid situations. HCQS, remdesivir, immunomodulating agents etc. and other related medicines to treat in symptomatic patients in hospitals or home need proper supply by working extra shifts. Biomedical field with proper diagnostic equipments help to identify the patients. Screening tools like thermal gun (temp recordings), swab collection tools, PCR detecting machines proper supply to the health care provides great and smooth running of programmes. Day night shifts of same no of pharmacist worker along with other non-technical worker play vital role to tackle covid situation.¹⁶ Pharmacist on research and development In a short time period researcher are successfully produces vaccine and they are on trials. From the formulation of drugs, discovering the structure of covid-19, its receptor and effect of drugs on the receptor are serious challenges till date. Besides all this problems all health workers along with pharmacist play a vital role to develop plasma replacement therapy techniques, vaccines, drugs like favipiravir, remdesivir, in short time. they also discovered hydroxychloroquine's to suppress symptoms, immunomodulating agents etc. Pharmacists provide an invaluable interface in this process by liaising with scientists and clinicians across the development arena. During the discovery research phase of development of a medicine pharmacists will work with other scientists to develop and select drug compounds that may be valuable as medicines. They will also help the project team, which might include medicinal chemists, bioscientists, toxicologists, pharmacokinetics and others, to understand the biopharmaceutical properties of the compound, the dosage form and how the route of administration might affect the rate and extent of absorption¹³. Within clinical research, pharmacists can help assess the safety and efficacy of new medicines. Skills learnt during pharmacy training allow them to contribute to the entire clinical trial process from planning the trial, developing the prototype formulations for administration first in animals and later for trials in humans, the production, packaging, labelling and supply of the medicine to clinical researchers, through to the monitoring and reporting of complex studies¹⁷. Pharmacists in miscellaneous role Covid-19 is a newly diagnosed virus of Coronaviridae, most of the healthcare and other non-technical staffs are not aware of this. community people and other healthcare students have lack of knowledge regarding this. Whiles lecturer in the pharmacy or medical colleges was doing great job to spread the proper knowledge, preventing methods, control of spreading disease by educating others. Implementation of law by government authority, pharmacy councils, medical councils, pharmacist associations, drug development authority, pharmacovigilance sector etc. play vital role to tackle covid-19.

Conclusion Pharmacist have several scope and various role performed in healthcare facilities in pandemic condition. Several role of pharmacists like community, clinical and hospital, industrial as well as other play vital role in controlling pandemic.¹⁸ Acknowledgements I would like to acknowledge the support from the pharmacy team in facilitating the data collection. Funding I know of no conflict of interest with this publication, and there has been no. financial support for this work that could have influenced the outcome. Availability of Data and Materials Data sharing does not apply to this article as no datasets were generated or analyzed during the current study. Competing Interests No known competing interest to declare.

FUTURE ROLE OF PHARMACISTS AMID COVID-19

Looking forward, pharmacists' medication expertise should be leveraged in vaccine development and clinical trials. When the vaccine against COVID-19 is available, pharmacists will be considered one of the frontline health workers that should be permitted to give immunizations. Given the past success of community pharmacists with increasing annual seasonal influenza uptake and their accessibility, pharmacists will need to be central in administering COVID-19 vaccines in order to achieve rapid population-wide coverage. Furthermore, screening and testing patients for COVID-19 are both crucial interventions to flatten the curve. Pharmacists in Alberta are screening patients daily and referring them to nearest testing facilities⁷. While American pharmacists may order and administer FDA-approved tests⁸. Increasing the accessibility of testing is imperative if countries wish to escape lockdowns.

CONCLUSION

In the fight against COVID-19, our shield is the healthcare system and our soldiers, healthcare professionals, which undoubtedly include pharmacists. Pharmacists have not stopped working because of COVID-19 and in fact, have stepped up to take on more responsibilities. Their efforts should not be forgotten when frontline workers are lauded once this global pandemic ends, but without question, should not be overlooked in the present, when their frontline efforts are still needed to fight COVID-19. Pharmacists are frontline workers; they should be addressed as such and given the recognition they deserve

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