Health Policy Analysis and Perspective

Community Pharmacy Practice During COVID-19 Pandemic: A Perspective From the Middle East

Saja H. Hamed

Faculty of Pharmaceutical Sciences, Hashemite University, Zarqa, Jordan

Address correspondence to Saja H. Hamed (hamedsh@hu.edu.jo)

Source of Support: None. Conflict of Interest: None.

Received: April 17, 2020; Accepted: May 28, 2020

Hamed SH. Community pharmacy practice during COVID-19 pandemic: A perspective from the Middle East. Glob J Qual Saf Healthc. 2020; 3:109–114. DOI: 10.36401/JQSH-20-14.

© Innovative Healthcare Institute

ABSTRACT

The coronavirus disease 2019 (COVID-19) pandemic poses serious challenges to pharmaceutical care services, and innovative responses by community pharmacists and regulatory bodies are needed. The experience in Jordan, located in the Middle East, is shared in this article in light of available international guidelines to provide insight into the efforts made by the pharmacists to safely maintain pharmaceutical services during the current pandemic. In addition, unique roles played by community pharmacists in other countries are discussed to shed light on the important role of community pharmacists in this outbreak.

Keywords: pharmacy practice, COVID-19 pandemic, health policy, guidelines, Jordan, Middle East

INTRODUCTION

The first case of coronavirus infection was reported on December 31, 2019 in Wuhan City, China, which then led to a nationwide pandemic.[1] The causative virus was officially designated SARS-CoV-2 by the International Committee on Taxonomy of Viruses[2] and the resulting disease was named coronavirus disease 2019 (COVID-19) by World Health Organization (WHO).[2,3]

Jordan is located in the Middle East and shares land borders with Saudi Arabia, Syria, Iraq, and Palestine. Jordan confirmed its first imported case of the SARS-CoV-2 infection on the March 2, 2020, a young man who had visited Italy. As of April 16, 2020, there have been 401 confirmed cases[4] of a population of 10,181,889 whose median age is 23.8 years.[5] Of the 401 confirmed cases, there are 250 recovered/discharged cases, 7 deaths, and 144 hospitalized cases; most cases are mild according to health officials’ statements in the media.

According to WHO, the Eastern Mediterranean region had 111,432 confirmed cases of worldwide 1,991,562 confirmed cases on April 16, 2020.[4] SARS-CoV-2 is highly infectious, spreading rapidly via human-to-human transmission, with no current effective drug therapy or vaccine. WHO declared COVID-19 a pandemic on March 11 after more than 110,000 cases were confirmed in 114 countries around the world,[6] making it clear that the COVID-19 has become a public health event that needs worldwide attention and collaboration.

Healthcare workers caring for patients are at a particular risk of infection, with confirmed cases and deaths among this group.[5] A number of pharmacists worldwide died of COVID-19, and their names and countries are listed on the FIP (International Pharmaceutical Federation) Web site for commemoration.[7]

Similar to other affected countries, Jordan has announced several protective measures and restrictions to control the pandemic.[8] On March 15, 2020, the government announced the closure of all nurseries, schools, and universities in the Kingdom. Cinemas, swimming pools, and gyms were also closed, and religious services in mosques and churches have also been suspended. On March 17, 2020, the government suspended all flights to and from the Kingdom except for air freight, and all 5800 arriving passengers were sent to quarantine in assigned hotels for 14 days at the expense of the government.

On March 20, a comprehensive curfew for all public and private sectors was implemented. It lasted for almost 40 days, during which people were allowed to buy their basic goods by walking to nearby stores on restricted hours. Transportation was also prohibited during the comprehensive curfew, with few exceptions made for vital sectors including healthcare.

Jordan national public health and regulatory bodies have initiated preparedness and response activities to (1) provide health services under pressure and (2) protect health care providers in the frontline.
Furthermore, international professional organizations have issued recommendations and guidelines to help their members worldwide practice their health care roles in a safe manner. On February 6, 2020, FIP issued guidelines for pharmacists and the pharmacy workforce to provide them with information and recommendations to ensure safety for all and continuity of service.

In this article, I share Jordan’s responses of providing community pharmacy services during the lockdown and measures taken by the Jordanian Pharmacists Association (JPA) in collaboration with other authorities and policy makers to meet the unique needs of community pharmacy services during this pandemic. The local measures are discussed in light of available international guidelines, as well as the unique roles played by community pharmacists worldwide.

**LOCAL GUIDELINES FOR COMMUNITY PHARMACY AND PHARMACY WORKFORCE**

**Guidelines to Provide Community Pharmacy Services Safely During the Pandemic**

The Ministry of Labor in collaboration with the National Epidemiology Committee, JPA, and the Jordan Food and Drug Administration (JFDA) issued, by the end of March 2020, guidelines and safety measures for infection control in pharmacies under the penalty of closing the facility, if not followed. It is important to highlight that in case one of the pharmacy employees was infected with the coronavirus, a mandatory closure of up to 14 days and an extensive disinfection of the pharmacy is required according to a JFDA official letter dated April 7, 2020.

In addition, pharmacists are directed to do the following:

- “Perform comprehensive disinfection for their Pharmacies on daily basis before opening as well as periodically during the opening hours with particular attention to contact points (ie, doors and door knobs, floor, and cashier area).”
- “Provide accessible hand sanitizers in various locations for the pharmacy employees.”
- “Practice social distancing among pharmacy employees of more than 1 meter, and advise employees to avoid touching their eyes, nose, and mouth.”
- “Wear lab coats, masks, protective goggles (if possible), and gloves that should be periodically changed.”
- “Use hand sanitizers and/or soap and water after each money transaction, filling a prescription, and receiving medication boxes and medical supplies from wholesale distributors.”
- “Provide services from behind a barrier 1 meter away from the entrance for one patient at a time. This regulation applies for pharmacies with total area of less than 64 square meters. Pharmacies with total area of 64 to 120 square meters can allow two patients inside the pharmacy at the same time provided that they step on floor marks that are 2 meters apart from each other and from the pharmacist station. Further, pharmacies with total area of more than 120 square meter can allow three patients at the same time inside the pharmacy provided that they follow the same distance guidance of 2 meters apart.”
- “Provide hand sanitizers at the entrance of the pharmacy and direct patients/customers to use it before entrance to the pharmacy.”
- “Disinfect goods and medication boxes supplied by the wholesale distributors.”
- “Provide public educational posters about the signs and symptoms of COVID-19 infection and the proper protective measures. In addition, educate patients on how to distinguish among common cold, flu, and COVID-19, and make sure they know when to seek medical help. Furthermore, the Ministry of Health has provided a toll-free number (111) called ‘Ask about Corona’ to answer public inquiries about COVID-19 through a specialized medical team around the clock.”
- “Avoid using air freshener inside the pharmacy that may induce coughing for some allergic patients.”

In addition, medical representatives were required to stop visiting hospitals as well as physicians during the pandemic. All of the preceding measures are to protect the pharmacists, reduce the risks of transmitting the virus between people, and prevent the spread of infection through contacts of items in the pharmacy.

**Guidelines to Maintain a Stable Supply of Pharmaceuticals and Personal Hygiene Products and Sustain Chronic Medication Supply for Patients as Well as Milk Formulas for Infants**

Community pharmacies are a valuable component in the drug supply chain. The pharmacists and regulatory bodies adjusted their operations to match the challenges of the COVID-19 pandemic and related patients’ needs during lockdown. The following operational guidelines were implemented:

- To minimize unessential hospital and outpatient clinic visits during the lockdown that started on March 21, 2020, the outpatient clinics and pharmacies were closed and hospitals focused on emergency cases through their emergency departments. To address the health care needs of patients with chronic diseases, the government established an electronic platform called “Emed Hakeem” on April 8, 2020, to meet the prescription refill needs. For the insured patient to receive his or her prescription refill, the patient needs to fill out his or her health insurance information and public hospital name, as well as residential address, and groups of pharmacists, physicians, and other allied health workers took the responsibility of coordinating with public hospitals to provide home delivery for the refilled medications.
- The JFDA, after the panic purchase of the anti-malarial drug hydroxychloroquine tablets, restricted its dispensing to prescriptions from a specialist physician and required pharmacists to keep records of these prescriptions.
- During the lockdown, sedatives and restricted drugs were allowed to be dispensed/refilled based on the last available prescription or based on a photo of a prescription sent from the physician/patient to the pharmacy via email or text messaging services.
- During the lockdown, and because residents are not allowed to use their cars and are only allowed to shop for their needs from neighborhood markets, JPA in collaboration with the government provided a service hotline named “Hello-Pharmacist” to provide customers with information on the nearest community pharmacy in their area.
- Community pharmacists offered their customers during quarantine free home delivery services for their chronic disease medications and pharmaceutical supplies, as well as milk formulas, provided they follow the announced mandatory regulations issued by JFDA in this regard. The home delivery was performed only by pharmacists and pharmacists’ assistants themselves to provide patients with proper pharmaceutical counseling. It is important to point out that this home delivery service of drugs is illegal in normal circumstances in Jordan.
- The JFDA controlled the prices of surgical masks as well as rubbing alcohol to make them accessible for the public.

Table 1 summarizes the previously mentioned community pharmacy standard operating procedures implemented in Jordan.

**Discussion of Local Guidelines Considering International Guidelines**

The FIP considers community pharmacies during the SARS-CoV-2 pandemic to be one of the first points of contact with the health system for those with concerns or in need of reliable information. In addition, the National Health Service (NHS) in England considers pharmacists one of the critical key workers at the time of outbreak. Thus, to ensure continuous function of pharmacies during the COVID-19 pandemic and to minimize pharmacy staff risk of exposure to the virus, national and international health-related regulatory bodies issued guidelines and considerations for safe operation and continuity of services of community pharmacies during this pandemic.

The FIP, NHS, Centers for Disease Control and Prevention (CDC), and pharmaceutical associations in each affected country issued guidelines for standard operating procedures for community pharmacies that share common points with variation related to jurisdiction pharmacy practice issues in each country. These international resources help community pharmacists become aware of their COVID-19-related roles during the pandemic in addition to the traditional services they provide during normal circumstances.

Available resources share common guidelines regarding social distancing and limiting the number of patients/customers entering the pharmacy at one time; however the implementation of social distancing in real-life situations is achieved through a variety of approaches. The FIP advises pharmacists to use a plastic shield in front of the dispensing area, or marks placed on the ground to indicate the 1- to 2-m distance between customers and staff; in case neither of these measures is possible, patients/customers should not enter the pharmacy. The CDC also instruct pharmacists to minimize physical contact with customers and between customers and to maintain social distancing (6 feet, 1.8 m) between individuals for people entering the pharmacy as much as possible with the help of barriers and floor markers. Users of the pharmacy are also advised to keep a distance of at least 2 m from other people by the NHS. If the pharmacy becomes busy and staff are concerned that it would not be possible to maintain the 2-m distance, the entrance to the pharmacy can be closed by a member of staff managing entry and exit to the pharmacy until there is sufficient space to maintain the 2-m distance inside of the pharmacy, and pharmacies may consider screens to be installed to protect members of staff.

JPA guidelines share common social distancing guidelines with the previously mentioned international organization with more details regarding the number of patients allowed to be inside the pharmacy at one time per surface area of the pharmacy.

Pharmacy staff are considered according to the US Occupational Safety and Health Administration, at medium exposure risk for COVID-19, as they may have frequent and/or close contact (ie, 6 feet) with asymptomatic or symptomatic patients with COVID-19, thus, they advise pharmacists to install physical barriers, such as clear plastic sneeze guards, where feasible and to consider offering face masks to ill employees and customers. In the event of a shortage of masks, a reusable face shield that can be decontaminated may be an acceptable method of protecting against droplet transmission. The CDC recommends that pharmacy staff who have fever or respiratory symptoms stay home and away from the workplace until they have recovered.

The NHS requires pharmacies to remain open. Pharmacies that need to close temporarily for cleaning of communal areas should follow usual business continuity arrangements. In Jordan, pharmacies in which one of the employees is diagnosed with COVID-19 are forced to close for up to 14 days, during which decontamination is performed under the supervision of official personnel. In addition, it is mandatory to perform COVID-19 diagnostic testing for all other pharmacy employees. The JPA recommends that the pharmacists and pharmacy employees wear face masks. Interestingly, the recommendation for the use of masks for pharmacy employees varies between available guidelines. The FIP
states that “it is reasonable to recommend that pharmacy staff wear a face mask to protect themselves from infection, and to avoid further dissemination in case the pharmacy personnel become infected themselves.”[11] Although NHS states that “In general, it is not recommended that pharmacy staff need to wear facemasks to protect against the virus. These would only be required in high-risk situations such as supporting a
person showing symptoms of COVID-19 in an emergency.”[10]

**UNIQUE ROLES PLAYED BY COMMUNITY PHARMACISTS IN OTHER COUNTRIES THAT SHOULD BE TAKEN INTO CONSIDERATION BY HEALTH AUTHORITIES WORLDWIDE TO HELP CONTROL THE SPREAD OF SARS-CoV-2**

The role of pharmacists in the COVID-19 pandemic goes beyond the expected role. Community pharmacists in Macao, China, played a key role in the smooth implementation of “The Guaranteed Mask Supply for Macao Residents Scheme” to control mask shortage. The government of Macao ordered 20 million masks and announced a controlled distribution through pharmacies so that each local resident and persons on a working visa could buy a maximum of 10 surgical masks every 10 days for only US$1 with a valid identity card. The data about the purchase and sales were collected during each transaction by an information technology system and a Web page with updates every 15 minutes of the number of surgical masks available at different pharmacies was made public for the convenience of the buyers.[15]

Pharmacists also can play a unique role in screening for COVID-19 suspected cases and making appropriate referral to health authorities in an effort to control the spread of the infection. According to FIP, community pharmacists are considered the first point of contact with the health care system for those with health-related issues.[11] The national authority bodies can take advantage of the position of the community pharmacists as the first point of contact when the affected people ask for basic medical aid for symptomatic relief,[15] and design a referral scheme that engages pharmacists in the referral of suspected cases and trains community pharmacists on how to evaluate patients with suspected COVID-19 according to criteria provided by the US CDC and is also included in the FIP Guideline.[11] A proposed route was published for community pharmacists in Colombia to engage them in the early detection and appropriate referral of possible cases of COVID-19.[16] In this route, pharmacists are trained to deal with customers asking for anti-flu drugs or symptoms related to COVID-19 and to report possible suspected cases to health authorities by a hotline designated by the governor.[16] Interestingly, according to the current US Department of Health and Human Services regulations, licensed pharmacists can test for COVID-19 and collect, store, and ship the specimens appropriately to the designated laboratories.[17]

**CONCLUSION**

The COVID-19 pandemic is posing serious challenges to pharmaceutical care services, and innovative responses are needed by regulatory bodies to maintain the continuity of community pharmacy services during the current pandemic as well as to protect the pharmacy workforce while they are serving the public in the frontline. Thus, the JPA in collaboration with national health policy makers reshaped community pharmacy standard operating procedures in response to this health crises to sustain a stable supply of pharmaceuticals as well as to provide community pharmacy services safely during the pandemic. The Jordanian community pharmacy standard operating procedure guidelines share common points with FIP guidelines and other previously mentioned international guidelines with variation related mainly to restrictions by local pharmacy practice laws and the number of patients allowed to be inside the pharmacy at one time per surface area of the pharmacy.

In addition, as the scope of community pharmacy practice varies across countries, it is important to benefit from other countries’ experiences and survey ways in which community pharmacists can assist the public health authorities in controlling the spread of the infection and perform screening as well as appropriate referral of suspected cases.

**Acknowledgments**

The author acknowledges Dr Hatim S. AlKhatab (Faculty of Pharmacy, University of Jordan) for his helpful suggestions and discussions.

**References**

1. Zheng S-q, Yang L, Zhou P-x, Li H-b, Liu F, Zhao R-s. Recommendations and guidance for providing pharmaceutical care services during COVID-19 pandemic: A China perspective. *Res Social Adm Pharm.* 2020 March 26 [Epub ahead of print]. DOI: 10.1016/j.sapharm.2020.03.012.
2. Deng SQ, Peng HJ. Characteristics of and public health responses to the coronavirus disease 2019 outbreak in China. *J Clin Med.* 2020:9:575.
3. Yang Y, Peng F, Wang R, et al. The deadly coronaviruses: The 2003 SARS pandemic and the 2020 novel coronavirus epidemic in China. *J Autoimmun.* 2020;109:102434.
4. World Health Organization. WHO Coronavirus Disease (COVID-19) Dashboard. https://covid19.who.int/region/emro/country/jo. Accessed April 16, 2020.
5. Worldometers. Worldometers. https://www.worldometers.info/world-population/jordan-population/. Accessed April 16, 2020.
6. World Health Organization. WHO Director-General’s opening remarks at the media briefing on COVID-19 - 11 March 2020. https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020. Accessed April 16, 2020.
7. International Pharmaceutical Federation. FIP Covid-19 Information Hub. https://www.fip.org/coronavirus. Accessed April 16, 2020.
8. Wikipedia. 2020 Corona Virus pandemic in Jordan. https://ar.wikipedia.org/wiki/2020_CoronaVirusPandemic_inJordan. Accessed May 17, 2020.
9. Centers for Disease Control and Prevention (CDC). Guidance for pharmacists and pharmacy technicians in community pharmacies during the COVID-19 response. https://www.cdc.gov/coronavirus/2019-ncov/healthcare-resources/pharmacies.html. Accessed April 16, 2020.

10. National Health Service (England) NHS. Novel Coronavirus (COVID19) standard operating procedure: community pharmacy. https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/Novel-coronavirus-COVID-19-standard-operating-procedure-Community-Pharmacy-v2-published-22-March-2020.pdf. Accessed April 16, 2020.

11. International Pharmaceutical Federation. FIP guidance on COVID-19 for pharmacists and the pharmacy workforce. https://www.fip.org/coronavirus. Accessed April 16, 2020.

12. Jordan Ministry of Labour. Guide 8: working procedures for safety and health protection measures to limit the spread of Coronavirus. http://www.mol.gov.jo/AR/List/GuidebooksIssuedbytheMinistryofLabor. Accessed April 16, 2020.

13. Jordan Pharmacists Association (JPA). Announcement: safety measures. https://www.facebook.com/JPA.org.jo/posts/2712812345441013. Accessed April 16, 2020.

14. US Department of Labor, Occupational Safety and Health Administration (OSHA). Guidance on preparing workplaces for COVID-19. https://www.osha.gov/Publications/OSHA3990.pdf. Accessed April 16, 2020.

15. Ung COL. Community pharmacist in public health emergencies: Quick to action against the coronavirus 2019-nCoV outbreak. Res Social Adm Pharm. 2020;16:583–586.

16. Amariles P, Ledezma-Morales M, Salazar-Ospina A, Hincapié-García JA. How to link patients with suspicious COVID-19 to health system from the community pharmacies? A route proposal. Res Social Adm Pharm. 2020 March 3 [Epub ahead of print]. DOI: 10.1016/j.sapharm.2020.03.007.

17. American Pharmacists Association (APhA). APhA coronavirus watch: Licensed pharmacists can test for COVID-19, HHS says. https://www.pharmacist.com/article/apha-coronavirus-watch-licensed-pharmacists-can-test-covid-19-hhs-says. Accessed April 16, 2020.