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## Letter to the Editor

**Tele-pharmacy: A new opportunity for consultation during the COVID-19 pandemic**

Dear Editor-in-Chief

Today, there is a question of whether tele-pharmacy could be a powerful tool during the COVID-19 pandemic to deliver health care across health care system. The Coronavirus disease (COVID-19) pandemic is rapidly spreading across the world. Based on World Health Organization (WHO), worldwide 6881352 people were infected with the Coronavirus, and 399895 died until 8 June 2020 [1]. COVID-19 is a respiratory virus, which means that patients with chronic lung disease (including asthma, chronic obstructive pulmonary disease, and emphysema), diabetes mellitus, cardiovascular disease, chronic renal disease, chronic liver disease, immunocompromised condition, neurologic disorder, current smoker, former smoker are at increased risk of morbidity and mortality [2]. Because of the increased allergic reactions in the spring, allergic rhinitis of many patients may mistakenly be diagnosed as a symptom of COVID-19 [3]. Activities such as early diagnosis of the disease, isolation of the patients, monitoring of the contacts with suspected and confirmed cases, and public health quarantine are among the strategies taken to combat COVID-19 [4]. In this context, COVID-19 is changing the use of information technology in healthcare services. Telemedicine has achieved much more attention during this pandemic. Telemedicine provides electronic consultations and has reduced the risk of transmission by reducing in-person contact among people (self-quarantine) [4].

Tele-pharmacy is one of the practical aspects of telemedicine that refers to providing pharmaceutical services within the scope of a pharmacist's responsibilities, with a temporal and spatial distance between patients as the consumers of health services, and healthcare providers. Tele-pharmacy is used when a pharmacist is needed, but cannot be present in person [5–7]. Providing appropriate medical services to patients and consulting with other healthcare providers plays a significant role in decreasing the arbitrary use of medicines. It reduces adverse drug effects and interactions, resulting in the effectiveness of medications and diminishing costs. A pharmacy technician at a remote site prepares the prescribed medications for dispensing by a pharmacist. The pharmacist at the central location reviews the patient's profile and performs the clinical check for the appropriateness of the medications. As well, s/he communicates with patients for medication consultation through the real-time audio-video conferencing technology [5–7].

Due to the considerable uncertainty and danger following the outbreak of the disease, all the resources should be gathered to help patients and caregivers manage the pandemic crisis. Currently, most diagnostic tests of COVID-19 have a relatively long

turnaround time, often requiring patients to wait at home for results. When the results become available, tested individuals may consult a pharmacist on the phone or via video conferencing platforms such as Whatsapp, Skype, Telegram, etc. Currently, a consultation is taking place about take-at-home COVID-19 tests. If these tests become common, tele-pharmacy services could enable pharmacists to provide remote instructions to the patients administering their own tests.

In other words, tele-pharmacy reforms have also been known as an initiative to increase access to pharmacies among underserved populations, such as patients with COVID-19 in rural areas. Tele-pharmacy is a modern approach taken for training healthcare providers to deliver high-quality medication-related advice and services to treat COVID-19. Pharmacists have the duty of identifying and documenting adverse drug effects. Further, discharge consultation provided by pharmacists improves drug adherence and reduces drug side effects [7]. The pharmacist may give consultation on diet, self-protection and medication instructions after discharge, health care improvement, follow-up of disease, and knowledge required by patients concerning COVID-19 [8]. On the other hand, the use of tele-pharmacy can prevent unintended pharmaceutical problems and errors by pharmacists and physicians. As a result, it can reduce the costs for patients and health care providers.

Thus, although the tele-pharmacy program would not solve all the health problems, it is well suited as a solution in the relationship between pharmacists and healthcare providers or for the consultation between pharmacists and patients with COVID-19. Creative ways should be provided to ensure that all patients have equitable access to this valuable resource. Patients who lack access to technology should be screened and reached. The help of volunteers of telecommunication companies can help fill the potential gaps in access. Also, reimbursement for telephone visits, particularly to those for whom video visits are impossible, will incentivize the use of this critical modality when it is needed. Therefore, we recommend that health policymakers and planners formulate and revise reimbursement guidelines and determine the role of insurers in the tele-pharmacy sphere, after identifying potential benefits of the tele-pharmacy service in the COVID-19 era.

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## Authors' contributions

A. Ameri and F. Salmanizadeh were the responsible for the study design and writing the manuscript. K. Bahaadinbeigy has participated in drafting, reviewed, revised and approved the manuscript. All 3 authors read and approved the final manuscript.

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