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Remote Prescription During Pandemic: Challenges and Solutions

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The current COVID-19 pandemic has created an awareness and at the same time provides an impetus to transform digitalisation of healthcare delivery. Remote prescription is one key component of telemedicine, but it is the easiest and already practised in most places during the current pandemic even without the framework of virtual medicine in place. However, remote prescription, with its antecedent problems cannot be properly and safely executed in isolation. To ensure patients’ safety and health outcomes, specific guidelines will need to be developed to cater for specific medical conditions to address individual drug prescriptions and concerns. There is a need for a robust governance to ensure that patient’s safety is the foremost priority, and provisions should be made for requirements of remote prescription in the different medical subspecialities.

The pandemic provides an enormous opportunity for stakeholders and policymakers to come together to create a seamless and user friendly and yet innovative healthcare ecosystem to transform clinical healthcare delivery with patient safety as the core driver in the implementation.

Key Words: COVID-19, Remote prescription, Neurological disorders.

Prescribing medications as part of the treatment plan for the patient has long been seen as a cornerstone of routine clinical practice in Medicine. “Remote prescription” has been proposed as a measure to reduce waiting time and improve the efficacy of healthcare delivery in places constrained by travels and infrastructure support. It refers to the ordering of medications by the physician in the absence of the patient’s face to face visit to the clinic/hospital. Remote prescription is usually carried out via remote communication means such as telephone consultation, video consultation or over the internet. While remote prescription has already been practiced in certain setting, the concept has not been explored extensively by the healthcare community, with limited literature available that objectively address the effectiveness and limitations of this practice. In 2020, remote prescription has taken a new meaning and prominence due to the current COVID-19 pandemic (1–4), as it has become the default form of prescribing medications to patients due to the various isolation measures. To date, some countries such as the United Kingdom has issued general guidelines to facilitate good practices when prescribing medications remotely (5). As we embrace the “new norm” of prescribing approach, we will need to address the gaps in knowledge and understanding of this practice.

Here we discuss the challenges of remote prescription for “First” and “Repeat” prescriptions in an outpatient setting and explore their potential solutions. “First” prescription refers to the initial new order of medication(s) (not consumed by patient previously) by the physician for the patient.

First Prescription

“First” prescription can be challenging in situations where pre-screening for pre-morbid conditions or genetic status is required before medications can be ordered. As an illustration, for Carbamazepine prescription, the physician needs to screen patients for the HLA-B 1502 gene variant. A positive result for the HLA-B* 1502 gene variant suggests that patient is at higher risk of developing a potentially life-threatening reaction to the drug. Another example includes Ritalin (Methylphenidate Hydrochloride) and other psychotropics medications for autism and/or Attention Deficit...
Table 1. Challenges and Solutions for Remote Prescription

| Medical problems | Suggested solutions |
|------------------|---------------------|
| Medical history  | Physician together with healthcare team to conduct screening assessment, discussion of treatment options, pre- and post-counselling of assessment outcomes |
| Physical assessment | Physician providing remote prescription can depend on baseline assessment, or other healthcare professionals such as community nurses to facilitate any assessments |
| Consent          | Physicians must ensure that legal guardians are present during the tele-consultation, and status are verified through |
| Physical assessment | Physicians together with healthcare team to conduct screening assessment, discussion of treatment options, pre- and post-counselling of assessment outcomes |
| Consent          | Physicians providing remote prescription can depend on baseline assessment, or other healthcare professionals such as community nurses to facilitate any assessments |
| Monitoring of side effects | Set up a care team involving pharmacists and trained nurse practitioners, who can provide necessary and timely follow up |
| Duty of care     | Ensure competency and availability of complete information before prescribing |
| Monitoring of side effects | Physician together with healthcare team to conduct screening assessment, discussion of treatment options, pre- and post-counselling of assessment outcomes |
| Duty of care     | Physicians providing remote prescription can depend on baseline assessment, or other healthcare professionals such as community nurses to facilitate any assessments |

Hyperactivity Disorder (ADHD) in children. Screening for cardiac conditions, family history of cardiac conditions, mood disorders and uncontrolled muscle movements as well as seizures will be needed. These situations will require the physician and healthcare team to adopt a clinical pathway that comprises screening assessment, discussion of treatment options, pre- and post-counselling of assessment outcomes, and finally the ideal mode of prescription and other management options. Depending on the comfort level of the patient, the patient can do a follow-up visit with the attending physician to determine the treatment plan.

For some medical conditions, a physical and/or visual examination is required to ascertain diagnosis and/or severity of condition. For example, in Parkinson’s disease, a neurodegenerative condition where the physician will need to assess the tone of the limbs and neck and other neurological signs such as state of the reflexes and coordination. Previous baseline clinical signs by patient’s regular doctors or other healthcare professionals can help to corroborate or facilitate the assessment and such that a final diagnosis may be derived.

Age and cognitive ability are also major considerations. For children and young adults below the age of consent for medical treatment, their legal guardians will need to be present during remote consultation to discuss the care plan with the attending physician. Without which, prescription of medication cannot take place unless the legal guardian consents to do so. Similarly, for elderly patients who are at risk of mental dysfunction or those without mental capacity, their legal guardian would need to be available for the same reason.

Repeat Prescription

“Repeat” prescription refers to the replication of the previous medication order made by the physician. This can be done with relative ease if patients’ condition is stable with the medications. However, adverse drug-related effects may be difficult to monitor when patients self-adjust their medication dosage and/or frequency to their comfort level without consulting or updating the physician beforehand. This is especially so if the drug side effects are manageable or mild.

The attending physician can tap onto available resources within the healthcare system to ensure that the side effects are monitored closely by trained healthcare professionals at regular intervals. A care team involving pharmacists and trained nurse practitioners can follow-up with patients via telephone calls based on a standard template of checklist questions to ensure that patient is tolerating the medications. They can highlight these issues to the attending physicians at the earliest possible timing when problems are reported and thus preventing adverse health outcomes.

Challenges and Solutions

It can be challenging when the care for the patient needs to be transferred to other physician, whether temporarily or permanently, for various reasons (Table 1). Ordering a
remote prescription could have medico-legal complications should the patients experience adverse events from taking the medication. When the primary physician is not available, locum or covering doctors may not be able to provide an accurate clinical picture of the patients’ condition due to factors such as limited information available on the medical record system, language barriers or when history was taken from a secondary source (e.g. family member). These scenarios could lead to an erroneous remote prescription. There is a need for clear and specific clinical pathways and safeguards, facilitating cross validation by independent stakeholders and thus minimizing potential medication errors.

The current COVID-19 pandemic has created an awareness and at the same time provides an impetus to transform digitalisation of healthcare delivery. Remote prescription is one key component of telemedicine, but it is the easiest and already practised in most places during the current pandemic even without the framework of virtual medicine in place. However, remote prescription, with its antecedent problems cannot be properly and safely executed in isolation. To ensure patients’ safety and health outcomes, specific guidelines will need to be developed to cater for specific medical conditions to address individual drug prescriptions and concerns. There is a need for a robust governance to ensure that patient’s safety is the foremost priority, and provisions should be made for requirements of remote prescription in the different subspecialities.

More importantly, investments to create an optimal ecosystem to develop talent with specific skill sets (training of pharmacists, counsellors and doctors in counselling, medication reviews etc), pioneer suitable information technology platforms to better communicate with patients and artificial intelligence to screen for prescription errors or inconsistencies, implement algorithms for evaluation and cross checks, create long term socio-economic viability of the system, instil a robust medico-legal framework to forestall potential legal minefields, and to adapt all these solutions seamlessly into the routine clinical medical pathway.

Almost every clinician has done remote prescription during COVID-19 pandemic in some form but are probably not fully aware of the ramification of the potential problems. However, the pandemic provides an enormous opportunity for stakeholders and policymakers to come together to create a seamless and user friendly and yet innovative healthcare ecosystem to transform clinical healthcare delivery with patient safety as the core driver in the implementation.

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