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Emerging from the other end: Key measures for a successful COVID-19 lockdown exit strategy and the potential contribution of pharmacists



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ABSTRACT

As the world edges towards relaxing the lockdown measures taken to control the spread of the novel coronavirus SARS-CoV-2 (COVID-19), governments have started putting in place a variety of measures to avoid a second peak in the number of infections. The implementation of and adherence to such measures will be key components of any successful lockdown exit strategy. Ranging from expanded testing and widespread use of technology to building the public's trust in the post COVID-19 world, there is a role for pharmacists to play. In this commentary, these measures and the potential contribution of pharmacists to their successful implementation are outlined and discussed.

Introduction

On 11 March 2020, the World Health Organisation (WHO) declared the outbreak of an influenza-like illness caused by the novel coronavirus SARS-CoV-2 (COVID-19) a pandemic.^{1–3} This has mobilised governments across the globe and initiated a worldwide state of emergency to prepare healthcare systems for the upcoming tide of cases.^{4,5} With the focus shifting from containment to delay, the aim of these governments has also shifted to “flattening the pandemic curve” to enable their healthcare systems to cope with the expected unprecedented pressure that has never been encountered in peacetime.^{6,7}

Learning from previous pandemics, various non-pharmaceutical measures were put in place across the globe including travel bans, household quarantine, border closure, adult and child social distancing, and school closures.^{8,9} These drastic measures are usually reserved for pandemics that have high infectivity, as measured by the viral basic reproduction number (R₀), and high case fatality rate (CFR); particularly in absence of a vaccine and an effective curative treatment.^{10,11} However, given their negative economic and health consequences, these measures cannot be kept in place for the long time required for the development of a vaccine and/or an effective treatment.^{12,13} As the number of cases increases and the number of susceptible individuals decreases, the number of immune individuals starts to grow; making it possible to consider lifting some or all of these costly measures. Nevertheless, careful planning of exit strategies is required to ensure that a second wave of infections is avoided.¹⁴ These exit strategies should be tailored to each country's situation and place on the

trajectory of the pandemic spread.¹⁵

A number of measures has been proposed as key components of successful lockdown exit strategies.^{14,15} Effective implementation of these measures will require buy-in from the public and active involvement from a range of frontline workers including pharmacists, who have been playing a key role throughout this public health crisis and are ideally placed to continue supporting the public through these difficult times. Below, these measures are discussed and the potential contributions of pharmacists to their implementation is outlined.

Expanding antigen testing

Widening access to antigen testing to identify emergent cases is a key component of any successful exit strategy.^{16–18} Peto et al. proposed universal weekly antigen testing with strict household quarantine after a positive test.¹⁷ The authors, however, proposed evaluating the feasibility of such strategy before widespread adoption. Aggressive antigen testing has been key to the success of containment in a number of countries including Germany and South Korea.¹⁹ However, this has proven to be resource intensive. Thus, the capacity constraints of implementing large scale antigen testing will need to be carefully considered.²⁰ For example, the availability of PCR machines, reagents and the trained personnel to carry out these tests and interpret their results will require careful planning.¹⁷

Alternative testing methods are currently being developed with point-of-care testing, and home-testing kits offering a lot of promise, in terms of turnaround time and accuracy.^{21,22} These can facilitate prompt

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contact tracing, isolation and quarantine.

The availability and accessibility of testing sites for the wider population will be of particular importance. The USA has announced plans to use pharmacies as testing hubs in order to increase capacity and expand access.²³ This offers the advantage of reducing pressure on other healthcare facilities, such as hospitals and general practice offices, and moving testing closer to the public, given the wide coverage of the community pharmacy network in any country.

Introducing antibody testing

Identifying individuals who have been exposed to and may have developed immunity against COVID-19 has been proposed as a component of exit strategies.¹⁵ It has been suggested that this might be possible through antibody testing,²⁴ in which case the result of the test might be used as a basis for deciding on return to work. Some governments have proposed the use of an “immunity passport” or “risk-free certificate” that would enable individuals to travel or to return to work.^{25,26} However, the WHO has reported that there is currently no evidence that people who have recovered from COVID-19 and have antibodies are protected from a second infection, which calls into question the extent to which antibody testing could be used to inform return to work.²⁷

The availability of such tests is another limitation, with only one test currently approved. The U.S. Food and Drug Administration (FDA) has issued an Emergency Use Authorization (EUA) for Roche's new Elecsys® Anti-SARS-CoV-2 antibody test on 3 May 2020.²⁸ According to Roche's media release, the serology test has a specificity greater than 99.8% and sensitivity of 100% (14 Days post-PCR confirmation).²⁸

If it is confirmed that re-infection is unlikely, then antibody testing will indeed become a key consideration when deciding on individuals' return to work and other aspects of normal life.²⁶

Similar to antigen testing, capacity building for conducting these tests will be important.²⁹ There is a key role for pharmacies to play in becoming hubs for conducting these tests. Antibody testing carries less risks, as it should be conducted following recovery from the infection,²⁶ and it would be more acceptable and feasible for pharmacies to take a leading role in its provision.

Widespread use of technology

Technological applications have played a key role in controlling the spread of COVID-19 infections without resorting to imposing complete lockdown in some countries including South Korea.³⁰ Contact tracing using mobile phone applications can be an effective component of a successful exit strategy and will allow testing to be done less frequently as prevalence of COVID-19 cases fall.¹⁷ These applications have been key in the fight against the spread of COVID-19 in these countries and are now being trialled in other countries like the UK to be used after relaxing lockdown rules as an effective tool of contact tracing.³¹

However, regulations relating to ethics, privacy and data protection legislation will have to be in place before these applications are used on a large scale.³² To ensure public acceptance, individuals should be granted the right to limit access to their data once the pandemic and its associated public health emergency ends.³³

Expanding the use of telehealth and remote consultations in primary care will also aid in ensuring that access to healthcare is maintained while risks of infection and transmission are reduced.^{34,35} Pharmacists working in community and primary care, particularly those with prescribing roles, can contribute to expanding the capacity of service provision in these settings by implementing remote consultations, too.³⁶ This will also facilitate timely response to acute illnesses and effective management of chronic conditions.

Continued social distancing in public places

Social distancing will continue to be required as long as community transmission of COVID-19 continues on large scale.³⁷ Countries have developed their own standards in relation to social distancing including specifying the minimum distance to be observed when in public places to minimise transmission of infection.⁷ It is expected that some measures of social distancing might be relaxed during the immediate periods after moving out of lockdown. Shops, restaurants, and other places that will start opening to the public will be required to observe social distancing measures.³⁷

Community pharmacies have already put in place measures to ensure compliance with social distancing requirements such as queue management, floor marking and adapting their opening hours as required.³⁸ This will continue to be required but with potentially more relaxed requirements in relation to the distances observed and/or number of customers to be allowed at the same time.

Face covering in public

There has been a lot of controversy about the benefits of face covering in preventing the transmission of infection, however, the balance of evidence supports its use.^{39,40} The WHO has recently stated that “the use of a medical mask can prevent the spread of infectious droplets from an infected person to someone else and potential contamination of the environment by these droplets”.⁴¹ Thus, it is likely that the use of face covering, and potentially gloves, will become mandatory if not already implemented. However, there is growing concern that increasing public demand for face masks will create shortages and reduce their availability for frontline workers who are already facing problems in finding these masks.⁴² Ensuring the availability of face masks will, thus, be important for the implementation of face covering in public as a component of exit strategies.

Community pharmacies are likely to become major outlets where these masks will be made available for the public. Thus, pharmacists will need to ensure that adequate supplies are available and that appropriate instructions of how to correctly use these masks are communicated to individuals who need this information. This is critical to avoid the risks that could be associated with their use, such as the potential for infection when they are taken off in the wrong way and the potential for having a false sense of being “safe” and ignoring other important protective measures such as regular hand washing.⁴³

Availability of personal protective equipment for frontline key workers

A major setback for all healthcare systems since the start of the outbreak has been the lack of access to adequate levels of personal protective equipment (PPE) for health and social care frontline staff.^{42,44} This has resulted in a number of fatalities among these key workers and have adversely affected their trust in the system and its ability to provide them with adequate protection while undertaking their duties of care.⁴⁵ Going forward, there will even be more pressing need to ensure the availability of these PPEs for a wider range of health and social care staff, when hospitals and other healthcare facilities start its normal operation, albeit at a reduced level, such as outpatient clinics and surgeries.⁴⁶ Ensuring adequate supply of PPEs for health and social care facilities will continue to be a key aspect of any successful exit strategy.¹⁵ As community pharmacies continue to operate under these conditions, it will be important that their staff are adequately protected. This will not only ensure the safety of staff but will also increase public's trust in the safety of visiting the pharmacy and using its services.⁴⁷

Accelerated development and access to COVID-19 vaccine and antiviral treatment

Research continues to accelerate to develop a vaccine against COVID-19 and find a treatment for it. At the time of writing, the latest information from the WHO shows that 8 candidate vaccines are in clinical evaluation and 100 in preclinical evaluation.⁴⁸

The WHO SOLIDARITY Trial has also been set up to assess the safety and effectiveness of 4 potential options for treating COVID-19, based on evidence from laboratory, animal and clinical studies: Remdesivir; Lopinavir/Ritonavir; Lopinavir/Ritonavir with Interferon beta-1a; and Chloroquine or Hydroxychloroquine.⁴⁹ Trials of these and other repurposed drugs are progressing across the globe⁵⁰; with results already reported for some,⁵¹ while other large-scale trials (e.g. RECOVERY) continue recruiting.⁵²

Accelerating the regulatory approval of vaccines and treatments that show positive results will be important to avoid any delays in access to these eagerly awaited interventions. Regulatory authorities such as the US Food and Drug Administration (FDA) and the European Medicines Agency (EMA) have already started implementing emergency authorisation and accelerated approval processes for COVID-19 vaccines and treatments.^{53,54} Health Technology Assessment (HTA) agencies such as the UK National Institute for Health and Care Excellence (NICE), that are responsible for providing guidance regarding which technologies represent value for money and can be granted market access, are also prioritising the assessment of COVID-19 related technologies including treatments and diagnostics and some are offering free advice to companies developing these products.^{55,56} To ensure system preparedness, governments will need to consider how to ramp up production and facilitate distribution and administration of successful vaccines and treatments.

Pharmacies are ideally placed to act as vaccination hubs, with their long experience in administering flu and other vaccination.⁵⁷ Pharmacists will also be able to play a key role in ensuring appropriate prescribing and use of COVID-19 treatments, as the drug experts. Developing their knowledge of these potential therapeutic options and keeping up to date with the current research landscape around COVID-19 treatments will ensure they are well prepared and ready to act for when the dream of finding a cure becomes a reality.⁵⁸

Public trust

Above all what has been mentioned earlier, public trust in the measures put in place by their governments to protect them and prevent new spikes in infections will be of utmost importance. This trust can be created and maintained through open and transparent communication and evidence-based decisions.⁵⁹ Educating the public, providing them with evidence-based information and raising their awareness of the required measures to take to protect themselves and others is essential.⁶⁰ Healthcare professionals and educators will continue to play a key role in communicating these messages to the public through the different communication channels.

As one of the most trusted healthcare professionals, pharmacists are ideally placed and well trained to deliver these messages and educate the public.⁶¹ Across the globe, they have been actively involved in delivering these messages over the last few months through various channels of communication, including media appearances.⁶²

With the support of professional pharmacy organisations and the International Pharmaceutical Federation (FIP), pharmacists will have the required guidance to deliver these and other critically important roles to win the fight against this pandemic.⁶³

Conclusion

As the fight against the COVID-19 pandemic moves into its next phase, healthcare systems have to start planning their lockdown exit

strategies. The measures discussed above are key components that should be considered for inclusion in these exit strategies to ensure successful implementation. Pharmacists across the world have a central role to play in putting each of these measures into action to ensure that their countries emerge safely from the current state of lockdown and should be supported to do so.

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Declaration of competing interest

The author has no interests to declare.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.sapharm.2020.05.011>.

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