Readiness for influenza during the COVID-19 pandemic

Policy brief

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The purpose of this policy brief is to provide a concise summary of information and considerations to ensure optimal management of influenza during the COVID-19 pandemic. It addresses key issues policymakers may face, including potential co-circulation of influenza and SARS-CoV-2, differentiation between influenza and COVID-19 in patients and planning influenza prevention and control interventions. The document also includes links to detailed technical guidance and other resources regarding the intersection of influenza and COVID-19, including monitoring the situation, preventing seasonal influenza, reducing severe complications and mortality, protecting specific populations and communicating and engaging with the public.

Introduction

With the arrival of the influenza season in the Northern Hemisphere and the year-round activity in the tropics, countries need to review their influenza plans and policies and adapt them, as needed, to the concomitant COVID-19 pandemic. Each year, seasonal influenza affects individuals in every country and results in up to one billion cases, three to five million severe cases and up to 650 000 respiratory-related deaths worldwide [1]. The Southern Hemisphere has already experienced its influenza season, providing valuable insights that may be informative for other areas. The dramatic reduction in influenza detections during the 2020 Southern Hemisphere influenza season, as compared to previous years, may have resulted from public health and social measures (PHSM) and travel restrictions put in place for COVID-19 [2]. However, it is uncertain whether the situation will be similar for the 2020-21 Northern Hemisphere influenza season. There is a risk that if PHSM are lifted, influenza transmission could increase, leading to potential co-circulation of influenza and SARS-CoV-2, the virus that causes COVID-19, and creating an additional burden on vulnerable populations and health systems.

It is therefore important to ensure that overarching coordination mechanisms and partnerships are leveraged at national and sub-national levels to enhance influenza readiness during the COVID-19 pandemic and review influenza prevention and control plans and policies ahead of the relevant influenza season should they require adaptation to concurrent COVID-19 risk. In addition, influenza prevention and control programmes include a comprehensive package of interventions, such as vaccines, antivirals and PHSM (hand hygiene, physical distancing respiratory hygiene/etiquette and mask use in certain circumstances). These interventions are effective in reducing the impact of influenza and could be synergistic with efforts to reduce the impact of COVID-19.

Monitoring the situation

Influenza and SARS-CoV-2 are respiratory pathogens with similar modes of transmission. The two infections often have similar clinical presentation, with the exception of loss of taste and smell, which seems more specific to, although not exclusively associated with, COVID-19. It is thus necessary to distinguish between the two viruses and associated diseases.

Global influenza surveillance and monitoring is conducted through the Global Influenza Surveillance and Response System (GISRS), a WHO-coordinated network of over 155 institutions in 123 Member States. GISRS is tasked with conducting year-round surveillance and monitoring of influenza viruses and serving as the global alert mechanism for the emergence of influenza viruses with pandemic potential.

Influenza is usually monitored through influenza-like illness (ILI) and severe acute respiratory infections (SARI) sentinel surveillance systems. The objectives of global influenza surveillance are described in WHO's *Global Epidemiological Surveillance Standards for Influenza* [3]. Influenza surveillance often uses information from multiples

systems to meet both surveillance objectives and other public health objectives, including monitoring and assessing the burden and impact of influenza-associated disease and mortality and informing the development of influenza vaccines.

Routine monitoring to understand the circulation of both influenza and COVID-19 is important to achieve the following:

- reduce transmission, morbidity, and mortality due to influenza and COVID-19;
- guide laboratory testing and clinical management for both influenza and COVID-19, including potential co-infections; and
- inform scale up or adjustment of public health interventions.

Effective treatments for influenza are available, but they are most effective if used early in the course of the disease. Consequently, maintaining influenza surveillance reduces mortality and complications. Countries are advised to maintain and adapt, where needed, routine influenza surveillance in outpatient units and hospitals. They are also encouraged to leverage existing influenza surveillance systems to monitor COVID-19 as an efficient and cost-effective approach to complementing COVID-19 surveillance activities, outbreak investigations and control activities.

Adequate testing to ensure effective detection and surveillance of influenza and SARS-CoV-2 is critical for appropriate action. In May 2020, WHO released interim guidance on *Preparing GISRS for the upcoming influenza seasons during the COVID-19 pandemic – practical considerations* [4], which outlines considerations for preparing for and responding to the persistent threat of influenza while also contributing to the COVID-19 sentinel surveillance efforts. The guidance is complemented by practical considerations for National Influenza Centres (NICs) [5] and Collaborating Centres and Essential Regulatory Laboratories [6] that participate in GISRS.

Since SARS-CoV-2 emerged, GISRS has supported the response, including through detection of COVID-19 cases and spread in community, using the sentinel site approach on top of influenza surveillance. In March 2020, WHO released interim guidance on *Operational considerations for COVID-19 surveillance using GISRS* [7], which summarizes the operational considerations for leveraging existing influenza surveillance systems to incorporate COVID-19 testing. WHO's *Public health surveillance for COVID-19: interim guidance* [8] includes this sentinel site surveillance approach as complementary to other COVID-19 surveillance activities, outbreak investigations and control activities. One of the surveillance measures for countries to consider is incorporating multiplex testing for SARS-CoV-2 and influenza (testing that allows for both viruses to be detected at the same time using a single sample) in routine sentinel surveillance systems (either through in-house or commercially available, high-performing multiplex assays), which can save time and resources.

Considerations:

1. Maintain routine sentinel syndromic surveillance of diseases caused by respiratory pathogens, such as influenza and respiratory syncytial virus, through surveillance for ILI, SARI, atypical pneumonia and unexplained fever, with sampling and laboratory testing of all or a subset of cases.
2. Ensure NICs have the resources to remain vigilant, especially for novel influenza viruses with pandemic potential and seasonal influenza virus variants.
3. Resume or maintain timely, routine and complete reporting of influenza virological and epidemiological data to global or regional platforms.
4. Continue COVID-19 surveillance strategies, and ensure samples for influenza testing are sent to NICs.
5. Prioritize sampling and testing and use multiplex testing for influenza and COVID-19 in sentinel surveillance sites, where possible.

Preventing seasonal influenza

Personal measures, such as hand hygiene, physical distancing, respiratory etiquette and mask use in certain circumstances, which are effective in preventing COVID-19 transmission, are also effective for preventing influenza transmission. WHO's interim guidance, *Overview of public health and social measures in the context of COVID-19* [9], informs national authorities about the measures that can be implemented to control COVID-19, which also apply to influenza.

Influenza vaccination remains an essential intervention for preventing influenza disease and reducing disease severity in high-risk groups and the overall burden on society. Since 2012, WHO has recommended a number of target groups for priority use of influenza vaccines: pregnant women, children, older adults, individuals with underlying health conditions and health workers [10]. All of these risk groups remain important target groups for vaccination, and countries are encouraged to maintain their routine influenza vaccination programmes. In September 2020, WHO released interim guidance on *WHO Strategic Advisory Group of Experts (SAGE) Seasonal Influenza Vaccination Recommendations*

during the COVID-19 Pandemic [11], which supports Member States to prioritize risk groups for influenza vaccination in case of short supply. If supplies are limited, consider health workers and older adults as the highest priority groups for influenza vaccination during COVID-19. The above suggested approach to prioritization should be considered in conjunction with the 2012 WHO recommendations, national policies, local epidemiology, and the potential for increased demand for influenza vaccines.

Considerations:

1. Continue to promote personal measures, as feasible, to prevent transmission of both influenza and COVID-19.
2. Maintain routine influenza vaccination programmes to protect people vulnerable to influenza, ensuring vaccination activities are conducted with appropriate measures in place to reduce the risk of increasing exposure to COVID-19.
3. Prioritize risk groups according to the latest SAGE recommendations for influenza vaccination if vaccine supply is limited.
4. Begin planning efforts for the procurement and deployment of influenza vaccines for your country's upcoming influenza season to ensure adequate supply of vaccines.

Reducing severe complications and mortality

Clinical management of patients with influenza needs to be prioritized to reduce severe complications and mortality and prevent spread of infection at health facilities. Although most patients have uncomplicated influenza-like illness (characterized by sudden onset of cough, headache, muscle and joint pains, severe malaise and sore throat, with or without fever), there are some that develop severe or complicated disease (characterized by severe pneumonia, acute respiratory distress syndrome, sepsis, exacerbation of chronic medical conditions and, potentially, leading to death).

Based on current evidence, patients at greater risk for severe influenza illness include those with chronic medical conditions, extremes of age (young children and older adults), and pregnant women, including up to two weeks post-partum (see Table 1 for a comparison of risk factors for influenza and COVID-19 severe disease). Care of patients with suspected influenza infection should be considered holistically, from the first point of contact at a health facility through discharge, and should include the following major steps:

- Screening and triage: When influenza virus is known to be circulating, persons presenting to health facilities should be evaluated for influenza-like symptoms, and if present, immediate infection prevention control (IPC) measures should be put in place while clinical management actions are taken.
- Clinical assessment: Patients with suspected influenza should be evaluated for presence of risk factors for severe disease and complications. Those with severe disease or with risk factors need immediate treatment, where available. Those with suspected uncomplicated influenza-like illness can receive symptomatic care at home.
- Treatment: Patients with severe or progressive disease and those patients at risk for severe disease (regardless of disease severity) should be treated empirically with an antiviral, such as oseltamivir, as soon as possible, regardless of testing capacity, when influenza is known or suspected to be circulating. A test with rapid turnaround (see next bullet on testing) can be used to guide treatment. Other supportive treatments should be based on clinical presentation. This may include oxygen therapy and advanced respiratory interventions, such as non-invasive and invasive mechanical ventilation.
- Testing: Patients with severe or complicated disease or those with risk factors (regardless of severity) should be tested using a rapid molecular assay when results can be made available within 24 hours preferably. Awaiting test results should not delay empiric treatment, which can be modified subsequently, according to test results. The longer the time lag between sampling and test results, the less the test will benefit clinical management. Empiric treatment without laboratory diagnosis could lead to expanded use of oseltamivir and could contribute to overuse and the development of resistance.

Table 1: Risk factors for influenza and COVID-19 severe disease

Influenza	COVID-19
Chronic conditions, including cardiac conditions (hypertension and cardiovascular disease), chronic lung conditions (asthma or COPD), endocrine disorders (diabetes), neurological disorders (stroke and neurodevelopmental conditions), chronic kidney disease, metabolic disorders, hematologic disorders, chronic liver disease and other immunosuppressed conditions, including cancer and HIV/AIDS and chronic conditions requiring immunosuppressive therapy, such as chronic steroid treatment or chemotherapy	Chronic conditions, including cardiac conditions (hypertension and cardiovascular disease), chronic neurological disorders, including stroke, chronic lung disease (e.g., COPD), diabetes, chronic kidney disease and some immunosuppressed conditions (e.g., cancer)*
Obesity	Obesity
Pregnancy and post-partum period (up to two weeks)	Smoking
Young children (<59 months)	Older persons
Older persons (>65 years old)	

*list of risk factors to be updated as evidence emerges

WHO's interim guidance on *Clinical management of COVID-19* [12] provides further guidance for the care of COVID-19 patients during all phases of their disease, including the diagnosis and treatment of co-infections with influenza and other aetiologies.

Considerations:

1. Train health workers, including frontline and primary health care workers and laboratory personnel on clinical management and IPC measures for all respiratory pathogens, including influenza and COVID-19.
2. Ensure facilities throughout the health system are ready to surge to manage severe and critically ill patients in acute care areas.
3. Ensure that supplies of diagnostics, personal protective equipment, influenza antivirals and oxygen are planned in advance of an influenza season and are available for care of influenza and COVID-19 patients.
4. Ensure that integrated screening and referral systems for both COVID-19 and influenza are in place to facilitate rapid diagnosis and to prevent nosocomial transmission and overburdening of health systems.

Protecting specific populations

WHO encourages Member States to consider implementing measures to protect specific populations, including pregnant women, older adults (especially those in long-term care facilities) and individuals in confined settings from both influenza and COVID-19. These measures include but are not limited to encouraging pregnant women to seek care if they have influenza-like illness; increasing vaccination coverage for vulnerable populations; and increasing testing and the use of antivirals in long-term care facilities. The following guidance can provide further details for Member States: *Maintaining essential health services* [13], *Preventing and managing COVID-19 across long-term care services* [14], and *Infection prevention and control guidance for long-term care facilities in the context of COVID-19* [15].

Consideration:

1. Plan and implement measures nationally to protect specific vulnerable populations from both influenza and COVID-19.

Communicating to and engaging with the public

Targeted and consistent information to the public through trusted influencers and channels of communication can improve the uptake of public health interventions, including influenza vaccination, where advised. This is even more important as populations face 'pandemic fatigue', which results in a "demotivation to follow recommended protective

behaviours, emerging gradually over time and affected by a number of emotions, experiences and perceptions" [16]. Member States should communicate regularly and transparently during the entire influenza season. They can maximize outreach via communications and community engagement through multiple sectors (business/employment sector, faith leaders, existing community led structures) to explain clearly and simply the similarities and differences between COVID-19 and influenza, what individuals can do to protect and treat themselves and when and where to seek additional medical care.

Ministry of health communication experts can take this opportunity to reinforce the importance of protective public health and social measures, such as hand hygiene, physical distancing and mask use, as well as avoidance of crowds and enclosed and poorly ventilated spaces, to protect against both COVID-19 and influenza.

Several techniques can be employed to respond to the infodemic (an overabundance of information – some accurate and some not – occurring during an epidemic), which makes it hard for people to find trustworthy sources and reliable guidance when they need it. Social listening methods (e.g., community feedback, frequently asked questions from healthcare systems and hotlines, and social media rumour tracking) should focus on misinformation and questions primarily about symptoms, vaccines, and adherence to and trust of measures that can prevent both COVID-19 and influenza.

Considerations:

1. Communicate regularly and transparently on the situation, advice to the public and the measures put in place to mitigate the impact of influenza and COVID-19.
2. Develop and adapt communications materials and use trusted sources to inform individuals about the differences and similarities between COVID-19 and influenza, how people can protect themselves and when and where to seek care.
3. Have a dedicated communications plan to accompany influenza vaccination programmes during the COVID-19 pandemic.
4. Employ social listening techniques to shape timely and tested health information coupled with community led solutions to address pandemic fatigue while also positively influencing people most at risk for COVID-19 and/or influenza.

References

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