

Guidance for SARS-CoV-2 and influenza testing – Winter 2020/21

V2. 12/10/2020

Background

One of the challenges we face in the coming winter is when a patient presents with respiratory symptoms, should they be tested for SARS-CoV-2, for influenza or for both?

A subgroup of the National COVID-19 Testing Strategy Group was convened to consider the options for SARS-CoV-2 testing / influenza testing for this coming winter, in settings to include nursing homes, residential care facilities, work places, hospital settings and primary care. The group were asked to consider the options for an appropriate testing approach in each of these sites.

The group have made the following recommendations:

Determining when influenza viruses are circulating in Ireland, in the context of COVID-19 pandemic:

The Health Protection Surveillance Centre (HPSC) monitors influenza activity throughout the year. When influenza viruses are circulating in the community in Ireland, HPSC will clearly state this in the weekly influenza surveillance reports posted on the HPSC website www.hpsc.ie. Circulation of influenza viruses in the community is generally determined when sentinel GP influenza-like illness (ILI) consultations are above the sentinel GP ILI baseline levels **AND** sentinel GP influenza virus positivity is above 10%, as recommended by the European Centre for Disease Prevention and Control (ECDC). HPSC will also monitor all influenza surveillance systems in Ireland and Europe in order to determine when influenza viruses are circulating in the community in Ireland.

When should testing for SARS-CoV-2 or Influenza or both occur¹?

If a patient presents in the community or to hospital with respiratory symptoms/symptoms compatible with COVID-19 (as per the COVID-19 case definition)² they should be tested for SARS-CoV-2, irrespective of COVID-19 levels in the community. SARS-CoV-2 testing and assessment algorithms in different settings are detailed on the HPSC website (see Appendix). When there is no evidence of influenza viruses circulating in the community in Ireland, as reported by HPSC, a test for influenza in these patients is not routinely required (i.e. the decision to test will be a clinical decision based on clinical assessment of the patient).

When influenza viruses are circulating in the community in Ireland, as reported by HPSC, the following applies:

- 1. In nursing homes and residential care facilities**, patients or employees who present with respiratory symptoms compatible with COVID-19 should be tested for SARS-CoV-2. In addition, a number of people may be tested for influenza based on Public Health Risk Assessment / clinical judgement.
- 2. In the context of the hospital setting** the following guidance applies:
 - a.** All hospitals with Emergency Departments require on-site testing for SARS-CoV-2. Rapid testing capability, where available, will facilitate patient flow.
 - b.** Ambulatory patients with respiratory symptoms presenting to the Emergency Department/Acute Medical Assessment Unit, i.e. those who do not require admission should be tested for Influenza based on clinical judgement. If it is deemed that an influenza test is not required in ED/AMAU, the patient is referred to a COVID-19 Community Testing Hub for COVID-19 testing. They are given usual self-care and isolation COVID-19 advice.
 - c.** All patients with respiratory symptoms who require hospital admission should be tested for both SARS-CoV-2 and influenza. The need for further

¹ This excludes the Irish sentinel GP network who will refer patients for influenza testing throughout the 2020/21 season (to resume in mid-October).

² COVID-19 case definition <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/casedefinitions/>

respiratory panel testing (for other pathogens) is based on clinical judgement.

- d. All patients admitted to Critical Care should have SARS-CoV-2 testing on or prior to admission. Scheduled (elective) admissions should be tested within 72 hours prior to admission and again on admission based on risk assessment (e.g. high community transmission). Unscheduled admission (unplanned or emergency), without COVID-19 symptoms, should be tested for SARS-CoV-2 on admission. Unscheduled admission with COVID-19 symptoms or respiratory failure of any cause should be tested for SARS-CoV-2 and managed as COVID-19 until proven otherwise i.e. virus undetected and an alternative diagnosis with clinical response to treatment. If COVID-19 cannot be out-ruled COVID-19 infection control precautions should be maintained.
- e. A patient with Severe Acute Respiratory Infection (SARI) requiring ICU admission should be tested for both SARS-CoV-2 and influenza during the influenza season (October-May).³ Further respiratory panel testing (for other pathogens) is based on clinical assessment and judgement.

3. Testing in **Primary Care**

- a. In the context of Primary Care, a GP will make a clinical diagnosis of respiratory illness. Patients with a diagnosis compatible with COVID-19 symptoms should have a test for SARS-CoV-2 performed. In all cases where SARS-CoV-2 is not detected, and the patient remains unwell after several days, referral for a repeat SARS CoV-2 testing may be considered based on the clinical assessment, while mindful that an alternative diagnosis is likely. During the 2020/21 influenza season, influenza testing in primary care will be limited to the Irish sentinel GP network, unless based on clinical assessment when the patient is then referred to ED/AMAU where influenza testing may be considered.
- b. The Irish sentinel GP network, which includes approximately 60 general practices located across the country will refer all patients (consulting via telephone) meeting the COVID-19 case definition for SARS-CoV-2 testing.

³ As recommended by ECDC and WHO

Swabs will be taken at COVID-19 community testing centres and tested at the National Virus Reference Laboratory (NVRL). A proportion of these patients meeting the Irish ILI case definition will also be tested for influenza and respiratory syncytial virus (RSV) by the NVRL. Data from this sentinel GP surveillance system will be reported by HPSC in weekly influenza surveillance reports www.hpsc.ie and will be used to determine when influenza (and RSV) are circulating in the community.

- 4. In the context of an outbreak** of acute respiratory illness in any setting, where there is any doubt as to what the testing approach should be, an appropriate public health risk assessment will be undertaken, which will inform whether or not SARS-CoV-2 testing alone or dual testing for SARS-CoV-2 and influenza should be undertaken. In the context of influenza testing and testing referral pathways for outbreak settings, further consultation with local microbiology laboratories and/or the NVRL is required.

Referral of influenza specimens for further testing to the NVRL

As per previous influenza seasons, it is recommended that hospital microbiology laboratories endeavour to refer a proportion of influenza positive specimens to the NVRL for further influenza typing/subtyping, B/lineage testing, genetic and antigenic testing. The following positive influenza specimens should be referred to the NVRL during the 2020/2021 influenza season (October 2020–May 2021), when influenza is circulating:

- 5-10% of specimens from confirmed influenza hospitalised cases taken at three intervals during the influenza season: early season, peak of influenza activity and late season. The proportion at the peak of the influenza season should be less than the proportions early and late in the influenza season.
 - hospital influenza referrals to the NVRL should have as much volume of sample as possible
- All confirmed influenza cases admitted to critical care units
- All confirmed influenza cases who have died
- A minimum of two specimens from any confirmed influenza outbreak.

Influenza specimens should be referred to the NVRL in a timely manner, especially if associated with severe illness or death. This allows for real-time analysis of how influenza viruses are evolving, influenza vaccine match/mismatch and the impact of influenza on the Irish population and the Irish Health system during the season. These data are reported to HPSC for inclusion in weekly influenza surveillance reports and are also reported to WHO and ECDC in order to inform influenza vaccine virus selection by the WHO.

Inactivation buffer (IB) swabs which will be used at COVID-19 community testing centres are suitable for both SARS-CoV-2 and influenza testing. IB swabs are suitable for the following influenza tests: influenza typing/subtyping, B/lineage testing and genetic characterisation. IB swabs are not suitable for influenza antigenic testing. Viral transport medium (VTM) swabs are required for influenza antigenic testing, performed on a proportion of influenza positives each season by the NVRL.

Appendix – Links to HPSC case definitions and assessment and testing pathway algorithms

- [Case Definition for COVID-19](#)
- [Case Definition for Influenza](#)
- [COVID-19 Telephone assessment and testing pathway for patients \(aged 13 years and older\) who phone general practice and healthcare settings other than receiving hospitals](#)
- [COVID-19 Assessment and testing pathway for use in a HOSPITAL SETTING](#)
- [Other Assessment and testing pathways for COVID-19](#)

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