

Measures for Disease Management – Acute Hospitals
NPHET Subgroup on Acute Hospital Preparedness

1. COVID-19 – Acute Hospitals

The rate of infection amongst healthcare workers is a growing concern as it will have a significant impact on our ability to staff hospitals as demand for acute services increases. It is also a concern given the potential to spread infection to non-COVID-19 patients. It is important therefore that measures are taken as a matter of urgency to reduce the risk of nosocomial infection and protect both staff and patients. To date 21 outbreaks have been identified in the hospital environment, with the situation in Dublin hospitals, a particular concern. It is likely that nosocomial outbreaks are important amplifiers of the local outbreaks (ECDC).

While available data is, as yet, limited, following is a review of the data (CIDR) on 25/03/2020, when the total number of COVID-19 cases reported was 1,564, of which, 21% (n=322) were Health Care Workers.

Table 1 Most likely source of COVID-19 transmission among HCWs (n=322)

Most likely source of transmission	Number (n)	Percentage (%)
Travel or mass gathering*	75	28
Nosocomial**	99	26
No known source of transmission***	148	46
Total	322	

*HCWs who travelled abroad OR attended a mass gathering 14 days before onset of symptoms AND did not have close healthcare contact with SARI/COVID-19 cases

**HCWs who did not travel abroad 14 days before onset of symptoms AND who had close workplace/healthcare setting contact with SARI/COVID-19 patients

***Includes HCWs with missing information and those who did not fit either the travel or nosocomial source of transmission

As Health Care Workers are prioritised for testing it is possible that the data reflects that bias. However, it is noted that in a mass screening undertaken in 2 hospitals in the Netherlands, 1,353 staff who recently suffered typical winter coughs/colds, 6.4% tested positive for the coronavirus. Barely half had a fever, and the majority reported working while they were mildly ill. Excluding history of travel to China or northern Italy from the criteria, 40% of infected health workers identified in the screening, still would not have otherwise been detected. This report raises concerns about the prevalence of infection in healthcare workers currently providing front line services and who may be acting as vectors for the spread of the virus.

2. Need for Additional Measures in Acute Hospitals

The risk of Covid-19 outbreak in our hospitals and critical contagion across patients and staff stems from;

- the insidious nature of the coronavirus;
- poor infrastructure/ nightingale wards in some hospitals;
- a relatively low number of single rooms;
- hospitals are high contact environments with significant levels of physical contact and close proximity between staff and patients;
- aerosol generating procedures, which have been linked to an increased risk of transmission, are undertaken in many specialities including critical care, surgery and endoscopy.

A confirmed outbreak will;

- result in high levels of staff absenteeism due to sick leave /self-isolation with potential staff shortages;
- put increased pressure on staff remaining on the front line with a consequent risk of staff burnout;
- present a risk of external transmission to families of staff and indirect staff;
- require increased levels of cleaning, hygiene activities and infection control measures;
- increase mortality.

Infection prevention and control (IPC) practices are of critical importance in protecting the function of healthcare services and mitigating the impact on vulnerable populations (ECDC). In that regard, IPC is generally well developed in acute hospitals. HIQA has confirmed that all hospitals, inspected prior to the COVID-19 emergency, have outbreak teams in place. In addition, hospitals are required to have a COVID-19 plan to ensure an appropriate response to the threat posed by the virus. The *Parallel System Framework*, approved by the NPHET, will ensure that patients with COVID-19 are cohorted separately from those without the illness, thus enabling a parallel system for the COVID-19 patient journey that can be flexible as needs demand.

While such measures will seek to control further spread of the virus within the hospital setting, and that appropriate patient care is provided, questions arise as to whether there is sufficient focus on outbreak **prevention**. It is believed that more can, and should, be done to mitigate the very real risk of nosocomial infection and in these circumstances, the measures set out below should be considered.

3. Measures Required in Acute Hospitals

Public Health/Infection Prevention

Establish/update guidance and assure actions in the context of disease management

- National COVID-19 Infection Prevention Team;
- Hospital Group Infection Prevention Team;
- IPC Team contact/Focal Point in each acute hospital;
- Establish a surveillance process for acute respiratory infections potentially caused by COVID-19 virus among health care workers; (WHO: *Infection prevention and control during health care when COVID-19 is suspected*: March 2020);
- Hospitals to provide data, on a daily basis, on rate of infection amongst staff and patients who acquired COVID-19 following admission;

- Provide central, interactive HSPC resource to deal with speciality specific queries from clinicians;
- Additional public health resources should be allocated to the East to support the management of current clusters;
- Outbreak control teams, to include representation from Public Health, should be mandated.

Risk assessment – scale of risk based on disease progression, environment and staff

- Set out a risk assessment scale based on disease progression, environment and staff;
- Risk rate all hospitals. (HIQA);
- Recommend control/mitigation mechanisms.

Suite of actions in line with risk rating

- Ensure triage, early recognition, and source control by isolating patients/staff with suspected COVID-19;
- Hospitals with outbreaks should be prioritised for PPE;
- Staff should use surgical masks when dealing with suspect or confirmed covid-19 patients;
- Staff undertaking aerosol generating procedures should use respirator masks;
- Speciality specific standard operating procedures for COVID-19 should be developed;
- Monitor staff compliance with standard precautions and mechanisms for improvement provided as needed;
- Explore the rationale to apply a broader case-definition to identify suspected Covid-19 in hospital staff;
- Explore potential to introduce antigen testing.

Staff

- Actively monitor all staff in acute hospitals at start of shift and at one point during the shift;
- As far as possible, ensure separation of staff caring for COVID-19 patients;
- IPC training for all staff, not only healthcare staff; (ECDC: *Infection prevention and control for COVID-19 in healthcare settings*; March 2020)
- Ongoing education and training opportunities provided to ensure that a steady and sustainable precautionary approach is adopted;
- Staff assigned to treat COVID-19 patients must be trained in the proper use of PPE and participation in such training should be documented;
- Encourage healthcare workers to have a high level of clinical suspicion;
- Ensure that all staff understand the importance of promptly seeking medical care;
- Prioritise hospital staff for COVID-19 testing;
- All staff social interaction should be discouraged, and strict protocols should be in place for non-clinical areas;
- Identify and provide dedicated accommodation incl hotel rooms for hospital staff.