

COVID-19

Guidance for infection prevention and control in healthcare settings

*Adapted from Pandemic Influenza: Guidance for Infection
prevention and control in healthcare settings 2020*

Issued jointly by the Department of Health and Social Care (DHSC), Public Health Wales (PHW), Public Health Agency (PHA) Northern Ireland, Health Protection Scotland (HPS) and Public Health England as official guidance.

2. Transmission characteristics of COVID-19 and principles of infection prevention and control

2.1 Routes of transmission

Infection control advice is based on the reasonable assumption that the transmission characteristics of COVID-19 are similar to those of the 2003 SARS-CoV outbreak. The initial phylogenetic and immunologic similarities between COVID-19 and SARS-CoV can be extrapolated to gain insight into some of the epidemiological characteristics. The transmission of COVID-19 is thought to occur mainly through respiratory droplets generated by coughing and sneezing, and through contact with contaminated surfaces.¹ The predominant modes of transmission are assumed to be droplet and contact. For SARS-CoV, evidence suggests that use of both respirators and surgical face masks offer a similar level of protection, both associated with up to an 80% reduction in risk of infection.² During AGPs there is an increased risk of aerosol spread of infectious agents irrespective of the mode of transmission (contact, droplet, or airborne) ([Section 6.5 AGPs](#)), and airborne precautions must be implemented when performing AGPs, including those carried out on a suspected or confirmed case of COVID-19.

In light of the above, the Department of Health and Social Care's New and Emerging Respiratory Virus Threat Assessment Group (NERVTAG) have recommended that airborne precautions should be implemented at all times in clinical areas considered AGP 'hot spots' e.g. Intensive Care Units (ICU), Intensive Therapy Units (ITU) or High Dependency Units (HDU) that are managing COVID-19 patients (unless patients are isolated in a negative pressure isolation room/or single room, where only staff entering the room need wear a respirator).

In other areas a fluid-resistant (Type IIR) surgical mask (FRSM) is recommended; all general ward staff, community, ambulance and social care staff should wear an FRSM for close patient contact (within 1 metre), unless performing an AGP, when a filtering face piece (class 3) (FFP3) respirator, eye protection, a disposable long sleeved gown and gloves should be worn.

Initial research has identified the presence of live COVID-19 virus in the stools and conjunctival secretions of confirmed cases.¹ All secretions (except sweat) and excretions, including

4. Infection prevention and control precautions

Standard infection control precautions (SICPs) and transmission based precautions (TBPs) must be used when managing patients with suspected or confirmed COVID-19.

4.1 Standard infection control precautions (SICPs) definition

Standard infection control precautions (SICPs) are the basic infection prevention and control measures necessary to reduce the risk of transmission of infectious agents from both recognised and unrecognised sources. Sources include blood and other body fluids, secretions and excretions (excluding sweat), non-intact skin or mucous membranes, and any equipment or items in the care environment. SICPs should be used by all staff, in all care settings, at all times, for all patients.

4.2 Transmission Based Precautions (TBPs) definition

Transmission based precautions (TBPs) are applied when SICPs alone are insufficient to prevent cross transmission of an infectious agent. TBPs are additional infection control precautions required when caring for a patient with a known or suspected infectious agent. TBPs are categorised by the route of transmission of the infectious agent:

4.3 Routes of transmission:

- **Contact precautions:** Used to prevent and control infection transmission via direct contact or indirectly from the immediate care environment (including care equipment). This is the most common route of infection transmission.
- **Droplet precautions:** Used to prevent and control infection transmission over short distances via droplets ($>5\mu\text{m}$) from the respiratory tract of one individual directly onto a mucosal surface or conjunctivae of another individual. Droplets penetrate the respiratory system to above the alveolar level. The maximum distance for cross transmission from droplets has not been definitively determined, although a distance of approximately 1 metre (3 feet) around the infected individual has frequently been reported in the

medical literature as the area of risk.^{7,9}

- **Airborne precautions:** Used to prevent and control infection transmission without necessarily having close contact via aerosols ($\leq 5\mu\text{m}$) from the respiratory tract of one individual directly onto a mucosal surface or conjunctivae of another individual. Aerosols penetrate the respiratory system to the alveolar level.

Interrupting transmission of COVID-19 requires both droplet and contact precautions; if an aerosol generating procedure (AGP) is being undertaken then airborne precautions are required in addition to contact precautions.