

Infection Prevention Control Handbook (for England)

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The following updates have been made to the 5th edition of this handbook with regards to Coronavirus and COVID-19.

Viruses

Viruses are much smaller than bacteria and can only be seen under a powerful microscope. Although they can survive on surfaces and in food they can only multiply in living cells. Herpes (cold sores) and hepatitis B and hepatitis C are caused by viruses. Other diseases of humans caused by viruses include norovirus, human immunodeficiency virus (HIV), chickenpox, shingles, mumps, measles, influenza, respiratory syncytial virus (RSV) and the common cold.



Significant viruses

Coronavirus and COVID-19

Coronaviruses are a large group of pathogenic viruses that cause several respiratory diseases including the common cold, SARS (severe acute respiratory disease), MERS (Middle East respiratory syndrome) and COVID-19. The first reported case of COVID-19 was from Wuhan, China in December 2019. The incubation period for COVID-19 is 2 to 14 days although cases with a longer incubation period have been recorded occasionally. Symptoms include a dry persistent cough, fever, breathing difficulties and fatigue, although some victims report a very bad sore throat. Most people are likely to experience mild symptoms, especially people under 40 and children. Older people over 70 and those with underlying health conditions (heart disease, diabetes, high blood pressure, cancer and chronic lung disease) or immunocompromised are likely to experience more serious symptoms and may develop viral pneumonia. The average mortality rate is 3%, although the mortality rate for the over 80s is 15% and 0.2% for those under 40. It cannot be treated with antibiotics. Most people who are ill recover in two weeks, although those with more serious symptoms are likely to take at least 6 weeks to recover.

How is COVID-19 spread?

Mainly by large respiratory droplets from an infected person coughing or sneezing. The risk is increased the closer you are to an infected person and the longer you are in contact. Indirect transfer results from touching a contaminated surface and then touching your mouth, nose or eyes. Although viruses do not multiply in food, it would not be recommended to eat food which may have been contaminated by an infected person touching it or sneezing on it. It is likely that a 'carrier', i.e. a person infected but showing no visible symptoms may spread the disease. Children are least likely to show symptoms or only have very mild symptoms. Grandparents are recommended to limit contact with grandchildren for this reason. Spread is most likely when large numbers of people meet in poorly ventilated rooms or where contaminated air is recirculated.

What controls will prevent the spread of COVID-19?

These controls also apply to other common respiratory infections including flu, the common cold and norovirus (Norovirus is also foodborne).

The best way to prevent the spread is to avoid contact with cases and suspected cases. People with mild symptoms or who have been in contact with a confirmed case or have returned from a country or town that is deemed very high risk (because of many cases) should self-isolate at home for 14 days. It is also recommended that those over 70 or with underlying health conditions self-isolate during epidemics.

Avoid events and face to face meetings with large numbers of people. Try to limit numbers to 2 and ensure good ventilation in meeting places. Air conditioning filters need to be clean and effective with regular servicing. Avoid all but essential travel and crowded public transport. Wherever possible maintain a distance of at least 2 metres from other people. Do not shake hands, hug or kiss when meeting someone.

Strict hand hygiene is essential. The hands should be washed thoroughly, throughout the day with warm water and soap. Although 20 seconds is the minimum time recommended, this relates to lathering with soap and ensuring all parts of the hands, fingers, thumbs, in-between the fingers, fingertips, fingernails and wrists are all clean. It doesn't include preparing to wash your hands by rolling up sleeves and removing watches and jewellery or the very important steps of rinsing under warm running water and drying, preferably with disposable paper towels or your own individual towel at home. Hands should be washed when you arrive at work, after every break, before eating, after visiting the toilet, after contact with animals, before touching the mouth, nose or eyes, after sneezing or coughing onto the hands or if using a tissue, after touching a waste bin, if you have touched a contaminated surface, assisted an ill person and before putting on or taking off personal protective equipment including masks and gloves. When it is not possible or practical to wash your hands an alcohol-based (70% alcohol recommended) hand sanitiser may be used, but these are only effective if the hands are visibly clean. A bactericidal sanitiser may not be effective at killing viruses so always read the label or check with the manufacturer to ensure your sanitiser is effective. It is always preferable to avoid contaminating the hands so, for example, coughing or sneezing into the shoulder or inside of the elbow. However, if you use a tissue, because of the presence of mucus, remember your hands and the tissue will be contaminated. Discard the tissue in the toilet or foot operated lined bin and wash your hands. If you must open doors to get to the hand wash basin then it would be preferable to use a hand sanitiser. Visitors should apply hand sanitiser.

Hand contact surfaces, especially at work and in public places should be kept clean and disinfected throughout the day. Do not purchase unprotected, displayed, ready-to-eat food such as bread, cakes and sweets that may have been contaminated by an infected person. Fruits should be thoroughly washed or preferable prepacked. Try to pay on-line or contactless and avoid cash. Don't share food or food utensils.

Masks, gloves and other personal protective equipment are recommended for healthcare workers and persons nursing infected friends or relatives. Masks should also be worn by people who are ill. FFP3, FFP2 and N95 are most effective but 3-ply surgical masks are recommended for those at lower risk, e.g. cleaners. Masks must be well fitted and put on and taken off correctly. After removal and safe disposal of masks hands must be washed.

Norovirus

Norovirus is probably the most common cause of gastroenteritis. It is more common during winter and is often referred to as 'winter vomiting disease', although it can occur throughout the year. Symptoms usually last for 1 to 2 days and include projectile vomiting, diarrhoea, abdominal cramps, fever, headache and muscle aches. The onset period is from 12 to 48 hours. People usually make a full recovery although dehydration may be a problem for higher risk groups such as the elderly, the young, ill people and those who are immunocompromised. In recent years more virulent strains have emerged and some deaths have occurred.

Norovirus is very infectious as only 10 to 100 viral particles are needed to cause illness. It does not multiply in food, it only multiplies in the body. It is spread through the faecal-oral route and may be foodborne. Usually if food is prepared by an ill food handler people are told to refrain from working for 48 hours after symptoms have finished. However, there is evidence that some people can carry the organism for several weeks after recovering.

How is norovirus spread?

Airborne inhalation of microscopic droplets, person-to-person spread or environment-to-person spread are more common in sustaining and spreading outbreaks. Environmental spread includes contaminated hand-contact surfaces such as handrails, taps, toilet seats, basins, table tops, telephones, light switches, toys and carpets. Norovirus can survive in the environment, with newer strains sometimes surviving several weeks on surfaces.



Outbreaks are common where large groups of people are in close contact, such as hospitals, care homes, schools, nurseries, cruise ships, banquet halls, hotels, restaurants and in the home.

End of update

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