



## Offshore Coronavirus Infection Risk Management Part 2

### Extended Maritime, Offshore and Remote Site Considerations, and Frequently Asked Questions (FAQs)

#### Self-Screening:

It is highly recommended that all your employees, colleagues, dependants and, when applicable and relevant, your providers and contractors are fully aware that for both their safety and your benefit, they self-screen and monitor their health and risks on a regular basis (not only the risk of novel coronavirus (nCoV) of course, but also, as usual, other acute and chronic medical conditions).

If anybody is concerned that they have come into contact with a potential infectious carrier, contact or transmitter, and/or they are aware that they are developing or have developed signs of a respiratory tract infection (fever, cough, sneezing, runny nose and shortness of breath – any or all of these) while onshore off duty or at home, they should immediately call their personal physician and follow those instructions\* accordingly.

\*Those instructions will **not** usually be to proceed to their doctor's clinic or a nearby hospital; the nature of the instructions to a prospective patient will be decided by the rules and public health regulations being applied at the time the patient makes contact with local health services.



Cough



Runny nose



Fever



Shortness of breath

#### Travel History

A travel history, at the time of writing for at least the past 6 weeks, but soon it will need to cover the previous 90 days, should be in the possession of every travelling, transient, rotating or embarking employee. This should always remain in the employee's possession, but a 2<sup>nd</sup> copy should be carried to provide to any healthcare facility or screening point that may require it. The travel history should not be kept only on a smart phone or on an e-mail account (although copies should also be there); at least 1 copy should be printed out.

The minimum details needed for the travel history include:

- Locations visited in the previous 45 to 90 days as above
- The nature of the activity at those locations
- Any hospitals visited (for whatever reason)
- Any commercial flights, ferry or bus rides, and any chartered or ad hoc flights by fixed-wing aircraft or helicopter

The majority of travelling employees will have a relatively straightforward itinerary, but usually 10% to 15% of rotating employees have more than 1 stopover and travel through more than 3 airports/ports before rejoining their worksite.

#### Point-of-Departure Screening

The following principles apply to all offshore, remote site and seafaring employees, but the details will need to be adjusted in appropriate context.

The purpose of screening is not to single out, embarrass or compromise confidentiality of any employee; it should be a short, succinct and appropriately private process whereby everybody's safety can be protected.

A suggested short process:

1. Prior to rotating in or embarking again, the employee should forward a brief travel itinerary and statements of continuing good health/absence of fever or respiratory symptoms, to the appropriate line manager, minimum 24 hours before presenting at the airport or dock.

2. If any concerns arrive from that brief travel and health declaration, they should be dealt with before the employee proceeds to the boarding point.
3. At the boarding point, it is expected that some, hopefully small percentage, of the employees will not have met the requirements above and they should be sorted to be the last in the boarding queue.
4. Every person arriving should be checked and spoken to briefly and private about their current state of health, and the absence of any factors causing concern, such as travel or contact with ill people, and a formal temperature check should be done for everybody from the chief executing officer (CEO) (if here he/she is visiting) downwards. The temperature should be recorded with date and time, and method/site of temperature taking on the copy of the patient's health declaration. One copy of that declaration should remain onshore or at head office, confidentially stored of course, and the other copy should go with and to the medic or designated first-aid person on the installation, site or vessel. (Clearly, any contact thermometer used needs to be appropriately disinfected between patients; alternatively, handheld thermal screening is safe, efficient, accurate and contactless.)
5. The screening point does not necessarily need to be in a separate enclosed area, but it should be private in terms of out of direct observation of others and out of earshot.



### En Route Concerns and Response

If after departure/embarkation or arrival on site anybody develops a fever or signs of respiratory tract infection or notices any other colleague developing such, they should be referred to the designated medical first aid and be isolated, and basic demographics and vital signs and history of the presenting complaint and reason for the present concern should be documented, and a call should be made to Topside. At this time also, the boarding health declaration, travel history and arrival temperature check should be passed through to Topside.

Thereafter, follow the tailored and context advice recommended by your employer's or other contracted medical advisors.

For those at sea and voyaging onward to a port, the next port of call should be advised with the expected estimated time of arrival (ETA). For those offshore and on a fixed installation or onshore on a remote site, the next crew change and mode of that crew change should also be advised.

In some circumstances, it will not be feasible either from a logistics or a health isolation point of view to move the patient to an appropriate medical centre rapidly. Therefore, a room should be identified and prepared for the protective isolation of such patients with the purpose of maintaining a reasonable "cordon sanitaire" for the time being.

### Preferable Characteristics of an Isolation Room

- Can communicate with the 'outside world' by phone or intercom
- Has an outside view - as the patient could potentially be confined there for some days
- Has its own private lavatory, bathing, sleeping and resting facilities
- Has only 1 opening door (does not matter if it opens inwards or outwards)
- Has adequate external ventilation (preferably no internal ventilation to other rooms/areas)
- Is comfortable and with reasonable access to recreational materials (which remain in the room), power sources for a laptop, telephone access, etc.
- Has sufficient personal protective equipment (PPE) and cleaning material available

## Do Not Forget About People Back Home

Due to the nature of work on remote sites, offshore and on shipping vessels, it is likely that people will be very anxious if they hear that back in their home city or country, their families and friends may be experiencing an outbreak. We may suggest to reinforce a number of existing strategies for staying in touch during anxious times, which are as follows:

- As much as is compatible with safe work practice and avoiding contact with potential cases, make it feasible for staff to shop locally for items that are becoming scarce back home
- Encourage work colleagues and employees to copy relevant aspects of the pandemic advisories to help their families safeguard themselves
- Have a "Plan B" in place if people need to be rerouted on their return home from their voyage or site rotation
- Encourage people with family and dependants at the extremes of age or with pre-existing medical conditions, to in turn ensure their families have stocked up on basic supplies and refills on medications - and soap and other hygiene necessities - before they leave for work.



## Frequently Asked Questions (FAQs)

**Q:** *Since the usual first sign of systemic (as opposed to local) infection is fever, can you please define fever?*

**A:** Fever is our body temperature rises above the usual range of 36°C to 37°C (98°F to 100°F). Other terms for a fever include pyrexia (and occasionally you will hear hyperthermia that is not strictly applicable for a clinically

helpful rise in body temperature, which is what this is, as a response to infection). A rise in body temperature helps the immune system combat infection. When our various immune organs kill bugs, i.e. pathogens, these often release pyrogens that, as the name suggests, usefully keep our temperature elevated.

**Q:** *What is the most common way that people get infected?*

**A:** At this stage of the outbreak, no one knows for sure, although statistically, it is most likely that infection is taking place by direct droplet spread, and so in the early stages of such a pandemic, before the nastiness and spread of the disease is well known, the disease tends to spread quite quickly. Once people start taking precautions, such as social distancing, wearing masks and being careful of touching shared surfaces, that mode of transmission becomes less important, but of course always remains a risk.

**Q:** *What is this social distancing of which you speak?*

**A:** Different countries and cultures have different distances from our fellow humans at which we feel most comfortable. Some value proximity and some value a little more "stand-off". At this stage of the pandemic and because of the concern about droplet spread, we suggest increasing your comfortable social distance for strangers and chance acquaintances, to between 3 and 6 feet and no less. This is purely for medical reasons to reduce the risk of any significant amount of 'viral spray' landing on you if someone inadvertently coughs or sneezes.

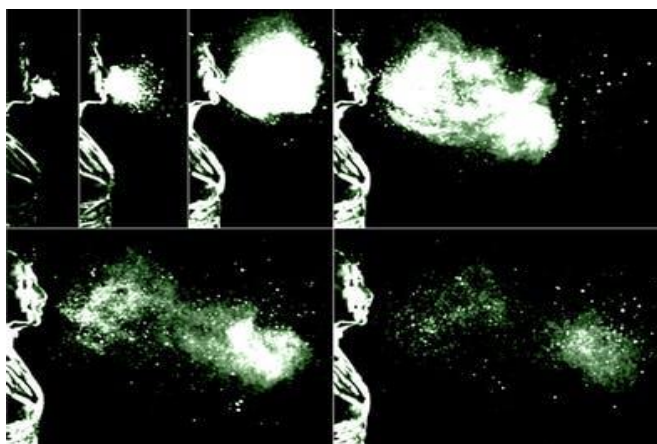
**Q:** *Does anybody know yet how long it takes to get infected if I am near someone who is contagious?*

**A:** Unfortunately, in recent days it has become clear (initially through contact tracing of cases in Australia) that susceptible people can be at risk of catching the virus even if they only have spent a quarter of an hour in close contact, such as a face-to-face conversation, or 2 hours in the same confined space with an infected person - and this is important - *who may or may not be symptomatic*. Over coming days and weeks, this exposure risk is likely to become better defined, so keep monitoring the pandemic advisory webpages for new information on this and other risk amelioration practices.

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**Q:** *Is 'droplet spread' something that comes with sneezing and coughing?*

**A:** Yes. To be really technical, a sneeze is more of a reflex action due to something stimulating receptors in the nose, and a cough is more of a reflex action due to effects lower down in the chest, but either way, there is a powerful blast of air that comes up from within us which is forcefully expelled from our airway and can contaminate objects sometimes as far as 20 feet away (but most people do not sneeze droplets that far). If you have access to YouTube, this is a graphic demonstration: [https://www.youtube.com/watch?time\\_continue=3&v=9qqHOKUXY5U&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=3&v=9qqHOKUXY5U&feature=emb_logo), or alternatively:



*Image courtesy of MIT*

**Q:** *So once that is on its way towards me, I cannot escape?*

**A:** Yes and no. As mentioned, it is a reflex, so it is not under the control of the poor person who is expelling that cloud of potential infection. But since *all* of us sneeze from time to time, we should all be aware of good "sneeze manners," i.e. coughing into the corner of our elbow rather than a hand so as not to transmit infection via shared surfaces. We should also, of course, be staying home if we are coughing and sputtering and sneezing; be wearing a mask especially but not only if we ourselves are coughing and spluttering and sneezing; and be washing our hands with soap and water not just using sanitiser, frequently - and try to keep them away from our mouths! (we touch our faces on an average of 3.6 times per hour, and common objects on an average of 3.3 times per hour...).

Last but not trivially, 20 feet is what you *can* get, not what you *must* get, especially if someone is already unwell, has been coughing and sneezing for hours or days, and lacks the force to project their droplets that far. Still, be on the safe side and ...

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**Q:** *Wait, what? Soap and water? Seriously? That is so old fashioned. Sanitiser be where it is at!*

**A:** Not so fast. Pocket-portable sanitiser pumps are very helpful when out and about, but nothing beats proper hand washing both for your and for others to safety. Please refer below to the glossary if you are still doubtful. I will wait here.



**Q:** *Oh, okay then. But hang on another minute, I have heard some very senior people quoted in the media that masks may make you feel better but do not particularly protect you. Why should I wear a mask? Why should not all the people who might infect me just wear the masks?*

**A:** A very reasonable question, so bear with me while I go into more detail.

1. Even though the lower quality masks may not filter all the smaller particles they do form a mechanical barrier to the inhalation of large viral 'loads' especially if someone unexpectedly yet vigorously coughs or sneezes close by. They will filter out some of that cloud; and even a determinedly nasty virus is not likely to overwhelm your immune system if only a few virus particles are inhaled.
2. Even though better masks, such as the N95, form a better seal than the more readily available surgical and procedure masks (which are also a lot cheaper), none of these form – of course – an airtight seal around the masks' edges, especially for people with beards. That does not however eliminate their 'filtration' value for the area they do cover, which of course is the maximum "inbound airstream" right in front of the mouth and nose.
3. Perhaps their biggest advantage in the middle of a pandemic is the fact that they interrupt the very frequent touching of the mouth by the fingers! As mentioned earlier, which means that we are not so likely to scoop relatively recently placed virus off a

doorknob handrail, etc. and put it in our mouth the next time we inadvertently touch our mouth. While most viruses do not live forever or even very long time on surfaces, they do and can transmit from that location if we happen along soon enough. We have seen this with the severe acute respiratory syndrome (SARS) virus, Norovirus and Ebola, and there is no reason that the coronavirus should be different.

4. Last but not trivially, they are a visual reminder when we are out and about seeing people with their masks on, that there is a problem and we want to keep a certain social distance beyond which droplet spread is unlikely to infect us.

Bottom-mask line: They can be useful in many circumstances and remember that (a) not everybody who wears a mask is going to be sick, and (b) not everybody who looks well is not contagious. A mask reduces the (currently small) risk that someone who does not know they are symptomatic could be spreading the infection, to you.

**Q:** *You mentioned that viruses can survive on surfaces. How long does this virus survive on surfaces common in my working environment?*

**A:** I am sorry, that is difficult to say. Previous studies, and especially the one done after SARS, noted that “most” viruses from the respiratory tract, such as corona, Coxsackie virus, influenza, SARS or rhino virus, can persist on surfaces for a few days. But what we really need to know is, even if they can be found on surfaces for days after those surfaces were touched by a contagious person, are they still capable of causing infection days later? That is the answer we do not have - that to the writer’s knowledge, no one has – about nCoV, at the time of writing these FAQs.



**Q:** *Do I need extra special cleaning agents to kill the virus?*

**A:** Any hospital-grade disinfectant will be fine. Always be sure to follow manufacturers’ recommendations for use and dilution, i.e. concentration, contact time, care in handling/breathing vapour, and skin protection. Remind everybody involved in cleaning to use only properly prepared, accurately labelled and purpose-dedicated cleaning liquids.



**One of the most common hazards occurs when chlorine bleach is mixed with ammonia or acids. The combination of ammonia and bleach produces dangerous chlorine gas, which in small doses can cause irritation to the eyes, skin and respiratory tract. In large doses, it can kill.**

**Q:** *I am worried about other people or myself, and I would like to be tested. I just prefer to know I do not have the virus right now. How can I do that?*

**A:** Again, sorry, you cannot. This is a very new virus, testimony just developed, and all of the testing laboratories (relatively few on a global basis) are currently overwhelmed testing sick people and people who have been in contact with those sick people, or who have come from locations that raise the risk.

**Q:** *Is it a risk to my family, my colleagues and me to receive parcels, goods or products shipped from China?*

**A:** I am going to defer to the Centers for Disease Control and Prevention (CDC) for the answer to this one, and am copying the relevant information from their website under the ‘Fair Use’ principle. (*Emphasis mine*)

“There is still a lot that is unknown about the newly emerged 2019 novel coronavirus (2019-nCoV) and how it spreads. Two other coronaviruses have emerged previously to cause severe illness in people (MERS and SARS). 2019-nCoV is more genetically related to SARS than MERS, but both are betacoronaviruses with their origins in bats. *While we don't know for sure that this virus will behave the same way as SARS and MERS, we can use the information from both of these earlier coronaviruses to guide us. In general, because of poor survivability of these coronaviruses on surfaces, there is likely very low risk of spread from products or packaging that are shipped over a period of days or weeks at ambient temperatures.* Coronaviruses are generally thought to be spread most often by respiratory droplets. Currently there is no evidence to support transmission of 2019-nCoV associated with imported goods and there have not been any cases of 2019-nCoV in the United States associated with imported goods.” Information will be provided on the 2019 Novel Coronavirus website <https://www.cdc.gov/coronavirus/2019-nCoV/index.html> as it becomes available.

**Q:** *Is it a risk if we resupply goods directly from Chinese ports, especially but not only foodstuffs and pharmaceuticals before our next rotation/assignment/voyage?*

**A:** Thank you; this is a very topical question. To repeat advice elsewhere, it is currently essential to avoid visiting, buying from and entering into resupply arrangements with wet markets. Out of an abundance of caution, it is also appropriate to avoid visiting, buying from and entering into resupply arrangements with providers who are currently in the lockdown area, who may be moving goods out of the lockdown area, or who are dealing with subcontractors and that lockdown area.

It is fully appreciated that because of the completely unprecedented huge area that the current lockdown area covers, and this is expected to only increase over the short term, it may be simply impossible to resupply in the region with everything you need. This is true of not only foodstuffs, but also, of course, with hygiene and cleaning products and personal medicines, such as antipyretics and analgesics, and PPE, such as masks and gloves.

It is therefore prudent to *already* be making alternative arrangements for those supplies from elsewhere. You may prefer to bring food with you via newly developed resupply chains outside the quarantine areas - which are expanding almost daily.

In terms of medical supplies, masks in particular are in extremely short supply; not unreasonably, manufacturers are supplying their national governments first as a priority, and also, equally reasonably, people in the lockdown area are asking for help from outside suppliers to protect them as a priority, above the currently “worried well” in your and my country. Additionally masks, other medications particularly analgesics and antipyretics, and of course, antiseptics and other medical and ‘household’ cleaning agents may already be in short supply, and robust arrangements will need to be made for these as early as possible. Do not forget to make sure you have enough accurate clinical thermometers, preferably thermal but not mandatory so, to check everybody that needs to be checked frequently enough and to account for loss and breakage during use and disinfection.

**Q:** *Are there specific guidelines we need our catering and mess colleagues to be adhering to, different from those usually applied in food hygiene and cooking/serving?*

**A:** The short answer is no. The longer answer - sometimes people have made informal arrangements for extra delicacies and supplies of tasty but usually difficult to obtain market food, locally. This is definitely not a good idea at this time.

Clearly, anything, such as meat eggs, needs to be thoroughly cooked (as always). Personal hygiene needs to be (as always) scrupulous; utensils should not be shared; people should not be ‘dipping’ out of a communal bowl or out of a buffet or similar arrangement; and anybody unwell should be served separately by a single person wearing appropriate PPE and taking due precautions before doffing and disposing of the PPE.



**Q:** *Is it still safe to fly nationally or internationally?*

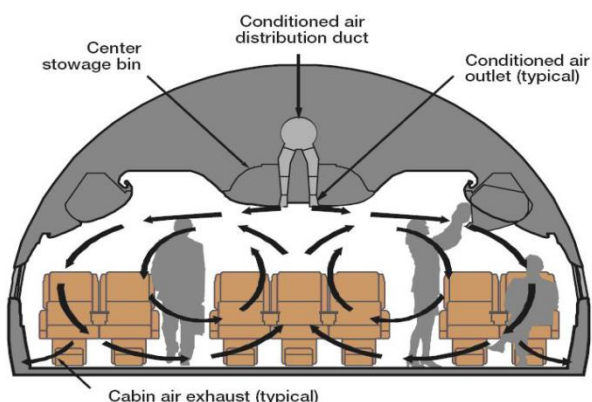
**A:** On the one hand, there is certainly not a large cohort of likely infected travellers currently airborne, thanks to the lockdown by the Chinese government and the prompt isolation and contact tracing being undertaken by the other governments of patients who have landed with the virus, or who have been contacts of a patient who landed with the virus. Still, on any given flight, no one knows the travel history of the planeload of passengers and their recent contacts. Many passengers themselves may not know who could have been a contact...

On the other hand, probably the more appropriate question to ask "is it still *possible* to fly nationally or internationally?" Check the pandemic website of International SOS, as well as the airlines websites, you will need to validate your travel plans with both as the airlines will be the first people to decide that they no longer can, are prepared to, or are allowed to fly to particular destinations.

International SOS does not hold information on specific flights.

**Q:** *Is it true that it is safest to be in a window seat/in an aisle seat/directly behind the pilots?*

**A:** Any attempt to define the "safe seat" in an aircraft is very much an oversimplification. The airflow on an airliner does not run, for example from front to back; rather, there are quite a number of different area exchange "cells" along the length of the aircraft, where air is dispensed from the high-efficiency particulate air (HEPA) filters, and then circulates around a number of seats and rows. Anybody unlucky enough to be sitting in front of, beside or behind an infectious passenger can be exposed and depending on the viral load inhaled, may or may not become ill.



For further information see

<https://aerospace.pall.com/en/commercial-fixed-wing/how-cabin-air-systems-work.html>

## Offshore Coronavirus Infection Risk Management Part 2

### Glossary:

- **Coronavirus:** Coronaviruses (CoV) are a large family of viruses that cause illness ranging from the common cold to more severe diseases, such as Middle East respiratory syndrome coronavirus (MERS-CoV) and SARS-CoV. The present nCoV is a new strain that has not been previously identified in humans.
- **Endemic:** An infection endemic when it remains constant within the population/within a region without new cases coming in from outside. For example, malaria is endemic across many countries in Africa, but not in Canada. Chickenpox is endemic in many Western countries, but relatively absent in many Eastern countries.
- **Epidemic:** An outbreak of disease that attacks many peoples at about the same time and may spread through one or several communities. See also pandemic.
- **Incubation period:** The gap between when you are first exposed to a bug and when you are first infected and start showing symptoms and signs (see below). Exposure does not inevitably lead to infection, but to be infected you have to have been exposed.
- **Index patient:** The index case is the 1<sup>st</sup> documented patient in the onset of an epidemiological investigation. There is no index patient for this epidemic.
- **nCoV:** This is an abbreviation for *novel coronavirus*, i.e. the new coronavirus which is the cause of the outbreak and all the concern.
- **Pandemic:** When an epidemic spreads throughout the world. The nCoV has caused a pandemic.
- **Sanitiser:** A liquid alcohol base gel that is a convenient way to clean hands, usually dispensed from pump bottle of various sizes. However, it is to be noted that a sanitiser is less effective on viruses than many people feel and certainly less effective than on bacteria. Additionally, systematic and washing under running water with soap is more effective as the soap better physically removes pathogens from the skin even if it does not actively 'kill' them. Plus as researchers point out, "*rubbing your hands together for a few seconds until hand sanitizer dries pales in comparison to rubbing your hands together with soap and water for the recommended 20+ seconds.*"

- **Signs of Infection:** The predominant earliest signs of respiratory symptoms, fever, cough, shortness of breath and breathing difficulties. In more severe cases, infection can cause pneumonia, SARS, and kidney and other organ failure.
- **Soap and Water and Systematic Hand Washing:** The best thing you can do to keep yourself and others safe from human-to-human transmission.
- **Symptoms vs. Signs:** A symptom is something which you feel that you suffer from and primarily you are aware of; a sign of something which you and other people can see. For example, you might feel symptomatic in terms of running a fever or having aching joints or a sore throat; other people may not be able to see any sign of you being unwell until you have a reddened throat and an elevated temperature. Doctors rely heavily on the patient accurately and comprehensively listing and communicating his/her symptoms, so please help us in that regard if you have to see or talk to the medic!
- **Systematic Hand Washing:** Do it by the numbers, “by the book”, with running warm water and soap, and the 6 steps should take you *at least* 30 seconds\*; and turn the tap off with your elbow or the paper towel you used to dry your hands. Keep your nails short, and dry your hands thoroughly after washing. *\*Basically, you should be able to sing happy birthday twice through, before you finish. If you sing aloud people will look at you strangely, but your hands will be properly clean! Plus they may bring your presents...*

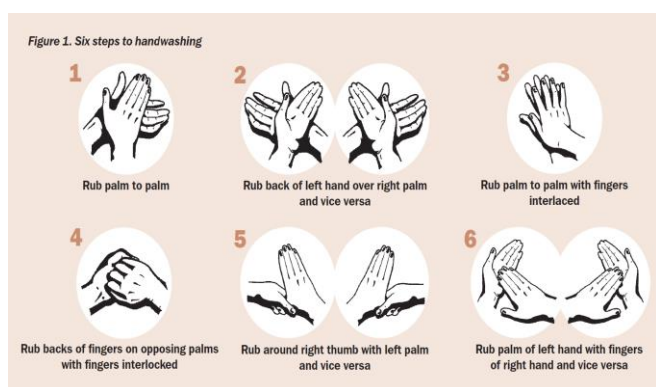


Image courtesy of the London School of Tropical Medicine and Hygiene

- **Transmission:** To affect humans, the ‘bug’/pathogen is to infect humans. Coronaviruses are *zoonotic*, meaning they are transmitted between animals and people. It is presently believed that SARS-CoV was transmitted from civet cats to humans, and MERS-CoV from dromedary camels to humans. There are known coronaviruses are circulating in animals that have not yet infected humans. It is not 100% confirmed how the present nCoV made the jump from the environment to humans.
- **(“Asymptomatic”) Transmission:** Usually, illnesses such as this is transmitted when one patient who was already symptomatic and showing signs is contagious, i.e. able to spread the infection to other humans. However, a small percentage (currently very) of existing cases appear to have been transmitted from people who have no symptoms or signs to contacts who then become infected, even when the original “index patient” remained well. Due to this asymptomatic transmission, the authorities and everybody involved are being extremely careful about tracing a travel history and a contact history, even if people have clearly not been in contact with any other already sick people...
- **Vaccine:** There is none for this virus; any newly developed vaccine is at least many months away. Our immediate protections are careful hygiene, social distancing and, if unwell, early presentation after self-isolation, and constructively helping with contact-tracing.
- **Virus:** A pathogen (bug) that infects people. Unlike bacteria, many parasites and most fungi, there is generally no specific treatment for a virus other than relying on the body’s own immune response to fight it off.
- **Z:** No, this is not the Zombie Apocalypse.

**Disclaimer**

This information has been developed for educational purposes only. It is not a substitute for professional medical advice.

Should you have questions or concerns about any topic described here, please consult your healthcare professional.