RM Power Services

Pandemics & Infectious Diseases Procedure

Introduction

Pandemics are large-scale outbreaks of Viruses that can greatly increase morbidity and mortality over a wide geographic area and cause significant economic, social, and political disruption. Evidence suggests that the likelihood of pandemics has developed over the past century because of increased global travel and integration, urbanisation, changes in land use, and greater exploitation of the natural environment. These trends likely will continue and will intensify. One of the most common of these is a strain of the influenza virus which we will focus on in this document, but can also be other strains of virus – broadly speaking the control measures set out will be applicable to any Viruses but policy must follow health advice for any given Virus or pandemic control plan.

Risks

- Pandemics have occurred throughout history and appear to be increasing in frequency, particularly because of the increasing emergence of viral disease from animals.
- Pandemic risk is driven by the combined effects of spark risk (*where* a pandemic is likely to arise) and spread risk (*how likely* it is to diffuse broadly through human populations).
- Influenza is the most likely pathogen to cause a severe pandemic. EP analysis indicates that in any given year, a 1 percent probability exists of an influenza pandemic that causes nearly 6 million pneumonia and influenza deaths or more globally. Other illnesses can spread throughout the world.
- Coronavirus (COVID-19) is the most recent pathogen that has caused a worldwide pandemic.

Impacts

- Pandemics can cause significant, widespread increases in illness and deaths in the community.
- Pandemics can cause economic damage through short-term fiscal shocks and longer-term negative shocks to economic growth.
- Individual behavioural changes, such as fear of going to workplaces and other public gathering places, are a primary cause of negative shocks to economic growth during pandemics.
- Some pandemic mitigation measures can cause significant social and economic disruption.

Mitigation

- The most cost-effective strategies for increasing pandemic preparedness, consist of investing to strengthen core public health infrastructure, including water and sanitation systems; increasing situational awareness; and rapidly extinguishing sparks that could lead to pandemics.

- Once a pandemic has started, a coordinated response should be implemented focusing on maintenance of situational awareness, public health messaging, reduction of transmission, and treatment of the ill.
- Successful contingency planning and response requires the ability to scale up the delivery of health interventions proportionately for the severity of the event, the pathogen, and the population at risk.

During a pandemic, the most successful infection control measures will be those which are the most easily understood and followed. outside the healthcare setting,

The primary focus of businesses should be on environmental, organisational and general hygiene measures the company can put in place to reduce the risk of transmission of Viruses.

Self-isolation by individuals with symptoms consistent with an influenza-like illness (iLi) or similar infectious disease is central to containing the spread of the virus. In addition, respiratory etiquette (using disposable tissues, covering the mouth when coughing or both nose and mouth when sneezing) and disciplined hand hygiene will help to reduce the spread of flu among the healthy population.

These measures should not be neglected on the assumption that more specific measures, such as the use of face masks, will work. Broadly speaking, the circumstances where face mask use may possibly play a part in reducing the risk of infection would be where they are used by symptomatic individuals to retain infectious droplets (thereby preventing them spreading the virus to others) or where someone is in close contact (less than one meter away) with someone known to have symptoms consistent with the virus.

If face masks are worn, staff must follow the procedures for their safe use, paying particular attention to how they are both removed and disposed of. Staff may expose themselves to additional risk of infection if they fail to use or dispose of face masks correctly. The use of a face mask must not decrease the strict application of other, more relevant, infection control measures.

How Is Pandemic Flu & Coronavirus Caught and Spread to Others?

It is likely that pandemic flu, just like seasonal flu, will spread from person to person by close contact. Some examples of how it can be spread include:

- Large droplets from coughing and/or sneezing by an infected person within a short distance (usually 2 meters or less) of someone
- Touching or shaking the hand of an infected person and then touching your mouth, eyes or nose without first washing your hands.
- Touching surfaces or objects (e.g. door handles) that have become contaminated with the flu virus and then touching your mouth, eyes or nose without first washing your hands.

What Should Individuals do If they have Symptoms or are Ill?

If an individual feels ill with symptoms consistent with the virus while at work, it is important that he or she does not simply carry on working. Their symptoms should be reported immediately to their manager or the occupational health department and, if they are consistent with flu, the individual should be sent home.

They should be advised to contact the NHS as per instructions relating to the virus and told not to return to work until the symptoms have cleared and they feel well enough to return. if individuals develop symptoms while not at work, they should adhere to the following advice:

- Stay at home (self-isolate).
- Do not go to work until you are fully recovered.
- Contact the NHS for advice and an initial assessment of symptoms in the first instance.
- Inform your employer or occupational health department to let them know you are ill.

What should individuals do to protect themselves and others from pandemics?

It is important that the following practices are adhered to:

- Individuals should use a tissue to cover their nose and mouth when coughing and/or sneezing, dispose of the tissue promptly and then wash their hands.
- Tissues should be disposed of in domestic waste – they do not require any special treatment.
- Individuals should not use cloth handkerchiefs or reuse tissues. This practice carries a risk of contaminating pockets or handbags which may then recontaminate hands every time they go into those pockets or handbags.
- Individuals should clean their hands frequently, especially after coughing, sneezing and using tissues. Soap and water are a perfectly effective means of cleaning hands; however, hand sanitisers (microbicidal hand sanitisers, particularly alcohol-based) can be used as an alternative.
- Individuals should minimise touching of the mouth, eyes and/or nose, unless they have recently cleaned their hands.
- Normal household detergent and water should be used to clean surfaces frequently touched by hands.
- Individuals should clean their hands as soon as they get to work and when they arrive home.

Risk Assessment

The following section provides details on the route of transmission/spread of the flu virus and other similar Viruses and the routes for reducing the potential for spread.

For disease to spread within a community there must be a source of infection, a route by which the infection is transmitted, and individuals who are susceptible to the disease. This is illustrated below, along with additional information.

The source

The symptomatic individual - it is generally accepted that individuals should be considered potentially infectious from the time symptoms appear to the time their symptoms have completely disappeared. In general terms, the more severe the symptoms, the more infectious a person is likely to be.

Transmission –Flu and other similar viruses are generally transmitted from person to person through close contact and over short distances in the region of 2 metres. This pattern of transmission is known to be associated with spread by respiratory droplets from coughs and sneezes, by direct contact with an infected person, or indirectly from objects or surfaces which have become covered with virus-infected secretions.

The recipient – In order to pass on the virus, individuals who are susceptible to the disease must be present. Until an individual has acquired immunity, either through natural infection or through vaccination, they remain at risk of infection.

For a person to become infected with pandemic flu or other similar viruses, each one of three elements must be present:

(1) an individual with symptoms consistent with the virus
(2) who transmits the virus by direct or indirect contact with
(3) a susceptible individual.

Mitigating Actions

Interventions that block all or part of the transmission route of a virus from a person with symptoms to a susceptible person have the potential to stop the chain of infection. These interventions generally have one of the following objectives:

1. reduce transmission of infection from an individual(s) with symptoms to a susceptible person, and/or

2. reduce the risk of susceptible people becoming infected.

The measures that businesses may want to consider in an effort to reduce the spread of a flu virus within the work environment fall into three broad categories:

Environmental actions taken within the environment to reduce the spread of the virus. Organisational actions taken to modify behavior and practice in the workplace to help reduce the spread of the flu virus. Individual behavior actions taken at the level of the individual to restrict the spread of the flu virus.

These actions are ranked in this way to reflect their potential effectiveness. in general, the most effective measures will be those that are easy to accommodate, implement and interpret within a given workplace. The use of personal protective equipment, such as face masks, by individuals is deemed to be the least effective because it relies on compliance and interpretation of guidance, and is easy for individuals to misuse, misapply or fail to use. It tends to give a false sense of protection and can lead to the abandonment of other, more effective, control measures.

The specific evidence base regarding the use of face masks by the general public is currently too uncertain and too limited to firmly support face masks for use by the public during a flu or similar pandemic.

Actions to Take

The following section identifies measures for reducing the spread of viruses at work. These are grouped under two main headings, corresponding to the intervention objectives highlighted previously. For each of these channels, the practices are grouped under environmental, organisational and individual behavior. A 'checklist' version of these measures can be found in appendix 1.

Reducing Transmission of Infection from a Symptomatic Individual

The principal action will be to promote the importance of prompt and effective self-isolation by individuals with symptoms consistent with the virus; such people should be encouraged to stay at home until symptoms resolve. Where self-isolation is not immediately possible, people with symptoms of the virus should be encouraged to adopt proper respiratory etiquette and hand hygiene and, where possible, avoid close interaction and direct contact with other people.

Environmental

Prominently displayed signs should be used to discourage staff and visitors with flu symptoms from entering the workplace and remind people of:

a) The signs and symptoms of flu or another virus
b) The importance of self-isolation of individuals with symptoms consistent with the virus
c) The importance of respiratory etiquette and hand hygiene at all times.

Surfaces should be cleaned frequently with the usual cleaning materials.

Consideration should be given to improving access to effective hand hygiene facilities. Where practicable, hand sanitiser (microbicidal hand sanitiser) could be made available at entrances to premises which are used by customers or visitors. The Catch It, Bin it, Kill it campaign stresses the importance of respiratory and hand hygiene.

Where practical, consideration should be given to minimising the number of soft furnishings and other objects that could potentially become contaminated and are difficult to clean.

Organisational

Raise awareness among staff of the signs and symptoms of flu and the need for individuals to self-isolate (stay at home) if they have symptoms consistent with the virus.
Consider how best to manage people who develop symptoms consistent with the virus in the workplace.

Promote an environment in which staff who become unwell feel that they can go home

and stay at home until they are well.

Consider alternatives to direct meetings and visits (eg phone or video conferencing).

Where contact with those who may have symptoms consistent with the virus (customers/visitors) is unavoidable, reduce the risk of transmission of disease to staff and others by encouraging:

a) the use of proper hand hygiene before entering premises or handling goods. When handling documents or money, staff should be encouraged to minimise contact with their mouth, eyes and nose until their hands have been cleaned

b) the practice of high standards of respiratory etiquette, such as covering the mouth with a tissue when coughing and sneezing.

Where practicable, direct contact should be avoided and, where possible, a distance of more than 2 meters should be kept between staff and customers/visitors.

Where social interactions are unavoidable, individuals with symptoms consistent with the virus should be encouraged to minimise close interactions and/or direct contact with people. Alternatively, if contact is unavoidable, consideration may be given to asking individuals with symptoms consistent with the virus to wear a face mask (if available) while interacting with staff (however the use and limitations of face masks are dealt with above, and below in Risk Assessment)

HR policies should reinforce the early recognition of illness and the need for workers to remain at home when ill. HR policies may wish to reflect the impact of a pandemic on dependents and be sensitive to staff needs during times of caring for family members or even bereavement.

Individual Behaviour

If attendance at a public place or location is unavoidable, then individuals with symptoms consistent with the virus, where practicable, should be encouraged to clean their hands or use a hand sanitiser (microbicidal hand sanitiser, particularly alcohol-based) before entering premises.

Encourage individuals with symptoms consistent with the virus to maintain high levels of respiratory hygiene and to dispose of tissues appropriately: ‘Catch it, Bin it, Kill it’.

Minimise interactions with people.

Reducing the Risk of Healthy/Susceptible People Becoming Infected

The principal actions will be to try to ensure that healthy people reduce or avoid contact with individuals with symptoms consistent with the virus and adopt practices that reduce the risk of catching the infection (for example, social distancing measures and effective hand hygiene).

Environmental

Assess access to hand hygiene facilities.

Clean surfaces frequently touched by hands with normal cleaning agents.

Organisational

Raise awareness of the importance of respiratory etiquette and hand hygiene.

Consider the practicability of the effective use of social distancing within work environments if social interaction is unavoidable. for example:

a) Implement measures to reduce the frequency of interactions should be considered, e.g. staggering lunch breaks or reducing the number of people in enclosed places

b) Reduce face-to-face meetings wherever possible and only undertake essential travel

c) Encourage the use of video or telephone communication or conferencing

d) Consider the use of home working for those staff for whom this would be a practical option.

Identify individuals who may be at particular risk of the adverse effects of flu or other viruses and deploy them in areas where contacts are minimal.

Individual Behaviour

Staff should adopt good hand hygiene practices and minimise touching the mouth, eyes and/or nose.

Increase social distancing and try to avoid being part of a crowd. Where it is unavoidable, adopt good respiratory and hand hygiene.

Minimise any contact with any individual with symptoms consistent with the virus.

If close proximity (less than a meter) with an individual with symptoms consistent with the virus is inevitable, then consideration might be given to using a face mask. if face masks are worn, staff must follow the procedures for their safe use, paying particular attention to how they are both removed and disposed of. Staff may expose themselves to additional risk of infection if they fail to use or dispose of face masks correctly. The use of a face mask must not decrease the strict application of other, more relevant, infection control measures. (The use and limitations of face masks are dealt with in the below section.)

Risk Assessment Matrix

There is no single approach or measure that can be taken to reduce the spread of flu and other viruses. Prompt self-isolation together with proper respiratory etiquette and effective hand hygiene should be actively promoted, encouraged and applied. an approach where environmental, organisational and individual actions are combined and applied will help to reduce the spread of the flu and other viruses within the workplace. The matrix outlined below shows ways of reducing the spread which combines the different levels of intervention and how they might be used to reduce individuals with symptoms consistent with the virus spreading infection, as well as reduce the risk of susceptible individuals becoming infected.

The practicability of any measures within our workplace and the solutions arrived at may vary according to the type of illness and the area of our business affected.

Pandemics are first and foremost a public health matter. There are, however, clear health and safety requirements (COSHH i.e. the Control of Substances Hazardous to Health Regulations 2002 as amended) to protect workers who come into contact with infectious micro-organisms such as the influenza virus if they are in close contact with someone who has the disease or with objects that have been contaminated by infectious material e.g. droplets from coughs and sneezes on surfaces, used tissues/clothing etc.

Where such direct contact is foreseeable, employers should carry out a risk assessment and put preventative measures and/or controls in place as appropriate.

COSHH does not cover employees who are exposed to a disease which is in general circulation and so may happen to be in the workplace as well. However, there may be indirect health and safety consequences of such a pandemic which do impinge on Health and Safety legislation (Health and Safety at Work etc Act 1974 and the Management of Health and Safety at Work Regulations 1999 in particular)

e.g. the redeployment of workers to unfamiliar tasks or to lone or remote working because of a depleted staff resource due to sickness absence.

Where there are indirect health and safety effects, it is again important to use the principles of risk assessment as a basis for ensuring the appropriate controls are put in place.

Throughout the duration of a pandemic, it is likely that your workforce will be depleted. In these circumstances, it is important to ensure that appropriate training is given to any remaining workers who may be required to carry out unfamiliar tasks. You may also need to review risk assessments and apply the necessary control measures to take account of the reduced workforce and the remaining pool of skills available to maintain your business.

Young workers and pregnant workers are particular categories of employee to be borne in mind in any temporary reorganisation of this sort and should not be substituted into inappropriate work.

You may need to think about extra precautions if workers, who normally work in a group, are required to work alone or in a remote location – such a scenario might even need to be suspended until you have a sufficient complement of staff. Certainly, the risks should be reassessed, and appropriate control measures put in place.

Similarly, employee sickness absences may create a need for other employees, if willing, to work longer hours in order to keep your business going. In this event, you will need to comply with the requirements of the Working Time Regulations 1998 as amended to ensure appropriate length of daytime working hours, night shifts and rest breaks. 'Young workers' are a particular category of employee for whom you must ensure appropriate working hours.

The company works in a large open plan office that is equipped with air conditioning systems. Although there may be some advantages in switching off an air conditioning system, the overall effect would be to create more static air which may result in discomfort and ill health effects. The main advantage of air conditioning is that it has a dilution effect on stale/contaminated air and also provides a more comfortable environment overall. The HSE's advice is therefore to continue running any air conditioning system already provided for the workspace.

There may be some situations where it will be advisable for a worker to wear a mask and the following information will help you decide.

Do My Employees Need to Wear A Mask?

The Department of Health's advice is that if a person is ill, or thinks they are ill then they should stay at home. This will contribute to maintaining a healthy workforce, and therefore it should not be necessary to wear a mask in most workplaces. Most of our workforce will not require a face mask.

What About Workers Who Regularly Come into Contact with the Public?

It should not be necessary for workers to wear masks routinely when in contact with the general public if advice to stay at home while ill is followed. There may, however be some situations when it will be advisable for a worker to wear a mask. Such a situation will depend on the nature of the work, where it is to be carried out and the outcome of the risk assessment that should, amongst other things, gauge:

- Whether it is reasonably foreseeable that workers may come into close contact (typically about a meter) with **symptomatic** members of the public during the course of their work;
- If workers are likely to encounter **symptomatic** members of the public, whether any measures can be taken to minimise contact.
- the duration and frequency of contact with members of the public.

Our field staff may in the course of their duties come into contact with members of the public, however it is likely to be infrequent and of short duration and distances should be able to be maintained in the majority of cases. Influenza viruses of other respiratory viruses such as the Coronavirus (COVID-19) spread mainly through droplets of respiratory secretions in the air, typically generated by coughing and sneezing. They also spread through hand/face contact with surfaces contaminated with such

secretions. Masks can provide a physical barrier but some precautions need to be observed. They should properly cover the mouth and nose and be used in combination with good personal hygiene.

Responsibility for providing advice on the use of masks for workers in general, rests with the employer. Whether a mask will be required will depend on the nature of the work and the outcome of your risk assessment for the workplace.

Broadly speaking, the only circumstances where face masks may play a part in reducing the risk of infection would be a situation where a healthy individual was unavoidably in close (less than 1 metre) contact with an individual with symptoms consistent with the virus. If close proximity (less than a metre) with an individual with symptoms consistent with the virus is inevitable, then consideration might be given to using a face mask.

If face masks are worn, staff must follow the procedures for their safe use, paying particular attention to how they are both removed and disposed of. Staff may expose themselves to additional risk of infection if they fail to use or dispose of face masks correctly. The use of a face mask must not decrease the strict application of other, more relevant, infection control measures. Without appropriate advice on the proper use of face masks, there is a risk of users contaminating themselves from the outside of the mask after use.

The company's activities have been assessed as not requiring the use of face masks at present. If work activities change, the below advice should be followed on the wearing and removal of masks.

General Advice on the Use of a Face Mask

A face mask should be put on before coming into contact with an individual with symptoms consistent with the virus. Hands should be washed thoroughly before handling the mask.

- Secure ties or elastic bands at middle of head and neck.
- Fit flexible band to the bridge of the nose.
- Fit snug to face and below chin.

The face mask should be removed once there is no longer any likelihood of close contact with an individual with symptoms consistent with the virus. Once removed, the mask should be bagged and may be disposed of after 72 hours in the bag. Hands should be washed thoroughly after the mask has been removed and disposed of.

- Assume that the front of the face mask is contaminated.
- Untie or break the bottom ties, followed by the top ties or elastic, and remove the mask by handling the ties only.
- Discard appropriately.
- Wash hands thoroughly after touching the mask.

Other points to keep in mind are that face masks should:

- Cover the nose and mouth
- Not be allowed to dangle around the neck after or between each use
- Not be touched once put on
- Be worn once only and then discarded.

What type should it be?

There are many types of mask available that will offer different levels of protection. Whilst the choice of facemask rests ultimately with you as employer, based on the results of your risk assessment, as a general guide, fluid repellent surgical masks will suffice as a barrier to large projected droplets that are regarded as the main route of transmission of the influenza and other respiratory viruses. They are also a practical and pragmatic measure for workers not normally used to wearing a mask whilst at work.

For high risk situations, where exposure to aerosols is considered significant, FFP3 masks are recommended.

What is the difference between a surgical mask and a FFP3 mask?

Surgical masks are plain masks that cover the nose and mouth and are held in place by straps around the head. Whilst they will provide a physical barrier to large projected droplets, they do not provide full respiratory protection against smaller suspended droplets and aerosols. They are not regarded as personal protective equipment (PPE) under the European Directive 89/686/EEC (PPE Regulation 2002 SI 2002 No. 1144).

A **filtering facepiece (FFP3)** device is a mask which is certified to the PPE Directive. It provides a high level of filtering capability and face fit. It can be supplied with an exhale valve so that it can be worn comfortably over a fairly long period of time. It will provide an effective barrier to both droplets and fine aerosols and is the type recommended particularly for people in the healthcare sector dealing with symptomatic patients undergoing treatment where aerosols are likely to be generated.

There are also filtering facepieces FFP1 and FFP2 available but these provide less respiratory protection than a properly fitting FFP3 device.

Do any special measures need to be taken when fitting surgical masks and FFP3 masks?

For **surgical masks**, the main requirement is that people should ensure that these fit as well as possible onto the face especially around the nose and mouth particularly taking account of the manufacturer's instructions.

FFP3 masks should be fitted with care to ensure that they fit as well as possible onto the face especially around the nose and mouth particularly taking account of the manufacturer's instructions. HSE guidance recommends that these masks are fit tested, in advance, to ensure that they are able to fit the wearer. It may be advisable to have more than one make of mask available as some masks may provide a better fit for some people than others.

How long should masks be worn before they are replaced?

Masks should only be worn once. The frequency with which they are changed will depend on the nature of the duties being undertaken as well as taking account of the manufacturer's instructions. Generally, they are designed for 1 shift and should be discarded at the end of each shift or sooner and replaced if they are soiled, damaged, torn or difficult to breathe through.

What other protective measures should be taken?

Workers should adopt good working practices and not rely solely on personal protective equipment as a means of protection. They need to adopt sensible hygiene measures by washing their hands thoroughly and more frequently than normal and avoiding unnecessary hand to mouth or hand to eye contact.

Appendix 1 – Checklists

Environmental issues to consider		Tick when completed
1	Use prominently displayed signs reminding people of the signs and symptoms of flu/other viruses and measures to be adopted	
2	Clean surfaces frequently with the usual cleaning materials	
3	Where practicable, make effective use of physical barriers to help restrict close interaction and direct contact with potentially ill customers or visitors	
4	Consider improving access to hand hygiene facilities, eg making hand sanitiser available	
5	Minimise the amount of soft furnishings and other objects that could potentially become contaminated and are difficult to clean	

Organisational issues to consider		Tick when completed
1	Raise awareness of the signs and symptoms of the virus and the need for an individual with symptoms consistent with it to self-isolate	
2	Consider how best to manage people with symptoms consistent with the virus in the workplace	
3	Promote an environment in which staff who become unwell feel that they can stay at home until they are well	
4	Consider alternatives to direct meetings and visits (eg phone or video conferencing)	
5	Where visits from individuals with symptoms consistent with the virus are unavoidable, encourage the proper use of respiratory etiquette and hand hygiene	
6	Where practicable, direct contact should be avoided and, where possible, a distance of more than one metre should be kept between staff and customers or visitors	
7	Where social interactions are unavoidable, individuals with symptoms consistent with the virus should minimise close interactions and direct contact and consider social distancing	
8	Consider the use of home working for those staff for whom this would be a practical option	
9	Identify individuals who may be at particular risk of the adverse effects of flu and deploy to areas where contacts are minimal	

Individual issues to consider		Tick when completed
1	Encourage proper hand hygiene and minimise touching of mouth, eyes and/or nose	
2	Encourage proper respiratory	
3	Minimise interactions with people and consider social distancing	
4	Minimise contact with individuals with symptoms consistent with the virus	
5	Consider asking individuals with symptoms consistent with the virus to wear a face mask	