

Uk Transplant - Pandemic Influenza PlanCopy No:

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1.0 Overview of task

- 1.1 The UKT sub group was established as part of the NBSBT Emergency Planning Group. The primary aim of the group being to develop plans to support the continuing provision of core transplant services in the event of an Influenza Pandemic and to support UK Health Departments' Influenza Pandemic contingency planning.

2.0 Introduction and approach

- 2.1 This plan supports and should be read alongside the NHSBT Pandemic Influenza Plan which contains the overall assessment and general strategy for dealing with a flu pandemic.
- 2.2 The plan has been produced based on the current available guidance from the Chief Medical Officer and the Cabinet Office and on the assumptions set out in the UK Health Departments' Influenza Pandemic Contingency plan (October 2005) – "The UK Flu Plan". Inevitably the plan has been developed based on broad assumptions about the ability of other organisations, particularly NHS Trusts, to continue to provide services. The plan will need to be reviewed in the light of any further guidance and/or actual availability of services in the event of a pandemic occurring.

3.0 Scope

- 3.1 The plan addresses the provision of core UKT services, and guidance on the procedures to be adopted by the wider transplant service for the retrieval and transplant of donor organs. For UKT, core services are considered to be the registration of patients on to the transplant list, the allocation of donor organs in accordance with the agreed national allocation rules and the provision of essential services to support these functions. Where other services are able to function within UKT in the event of a pandemic then these will continue as required but the plan is not aimed at ensuring their continuing operation. In terms of the wider transplant service the key areas identified are, eye banks, transplant units, Transport for Transplants, donor transplant co-ordinators and tissue typing labs. The plan details the likely impact on core UKT services and the wider transplant service at the various World Health Organisation phases of a pandemic and the UK alert levels.

4.0 Scenario

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- 4.1 This plan assesses the impact a flu pandemic could have on the provision of transplant services in the UK and the actions required to mitigate the impact. Important differences in the extent, age distribution and severity of illness are likely compared with annual seasonal influenza, but will not be known until human-to-human transmission is under way. Most people will be susceptible, although not all will necessarily develop clinical illness. Previous experience suggests that roughly equal numbers will be asymptomatic as have symptomatic infection.
 - 4.2 For planning purposes the base scenario, based on previous pandemics in the 20th century, is a cumulative clinical attack rate of 25% of the population over one or more waves of around 15 weeks each, weeks or months apart. This compares with the usual seasonal influenza attack rate of 5-10%. The second wave may be more severe than the first.
 - 4.3 The total cumulative attack rate over a number of waves is unlikely to exceed 50%. A reasonable worst-case single wave would therefore be represented by figures double those presented for a 25% attack rate. Therefore to plan for the worst-case scenario a cumulative clinical attack rate of 50% will be used. For “super small” teams, where only one or two individuals can perform a critical task or where there is shift working where only one or two individuals are on duty at a time, absence (for any given shift slot) could peak at 100% for nearly 2 weeks. As well as directly affecting staff (at UKT and in the wider transplant community), donors and patients on the transplant list the pandemic will also have an impact on utilities, the transport infrastructure and other essential support services. However for planning purposes it is assumed that although possibly disrupted, these services will not cease altogether and that the Government will not impose travel restrictions under emergency powers.
 - 4.4 This plan will focus on the first wave although it is likely that there will be two or three waves, 3-9 months after the first wave and these could be more or less severe. After the first wave there will be time to reflect on the impact, the response and the learning points and amend the plans/assumptions accordingly.
 - 4.5 Within a flu pandemic there are a number of phases both from an international point of view and more specifically a UK point of view. Table one shows the relation of the UK alert levels to the international phases.

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Table One – Relation of UK Alert level to WHO international Phases

International phases (WHO)		Possible UK responses/levels
Inter-pandemic period		
Phase 1	No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered to be low.	
Phase 2	No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.	UK not affected OR UK has strong travel/trade connections with affected country OR UK affected
Pandemic Alert Period		
Phase 3	Human infection(s) with a new subtype, but no new human-to human spread, or at most rare instances of spread to a close contact.	↑
Phase 4	Small cluster(s) with limited human-to-human transmission but spread is highly localised, suggesting that the virus is not well adapted to humans	UK not affected OR UK has strong travel/trade connections with affected country OR UK affected
Phase 5	Large cluster(s) but human-to-human spread still localised, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).	↓

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Pandemic Period	
<u>Phase 6</u>	<p>Pandemic phase: increased and sustained transmission in the general population. Past experience suggests that a second, and possibly further, waves of illness caused by the new virus are likely 3-9 months after the first waves subsided. The second wave may be as, or more intense than the first.</p>
	<p><u>UK Alert Levels</u></p> <p>1 Virus/cases only outside the UK</p> <p>2 Virus isolated in the UK</p> <p>3 Outbreak(s) in the UK</p> <p>4 Widespread activity across the UK</p>
Post pandemic period	
	Return to inter-pandemic period

The impact and response at each phase and alert level for UKT and the wider transplant service is set out below.

5.0 WHO pandemic phases 1-3

5.1 Unlikely to be any impact on the functions of UKT or the wider transplant service, which would continue to operate as normal.

6.0 WHO pandemic phases 4-5 and UK affected

6.1 The plan assumes that the existence and location of any clusters in the UK would be made generally available.

6.2 If an accurate and readily available means of testing for the existence of the virus is available then retrievals and transplants would be suspended for those donors or patients found to be infected. In the absence of any means to test for the occurrence of the virus the guidance to the transplant service would be to suspend the retrieval and/or transplant of donor organs (other than for life saving transplants), in and from hospitals located in cluster areas. Transplant patients have a lower immune response as a result of immunosuppression and given that a vaccine would not be available until after the first wave of a pandemic and treatment with antiviral drugs will only shorten the duration of illness by one day, but not cure it, the risk to transplant patients is significantly higher than for the

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rest of the population. The implementation of this guidance may require UKT staff to offer donor organs in a different order to the output from the computer matching runs or allocation sequences depending on the location of the donor or recipient.

7.0 WHO pandemic phase 6 (UK Alert levels 1- 4)**Impact on transplant services**

- 7.1 The impact of a flu pandemic on health services is likely to be intense, sustained and nation-wide.
- There will be an increased workload of patients with influenza and its direct complications
 - Depletion of the workforce due to direct or indirect effects of flu on themselves and their families
 - Logistical problems due to interruption of supply, utilities and transport as part of the general disruption caused by the pandemic.
- 7.2 The impact on transplant services will mirror that of the health service overall and it is likely that the ability to continue with a national allocation scheme will be significantly compromised. The availability of staff to carry out retrievals and transplants will be reduced (in the worst case scenario by up to 50%) and the availability of ITU facilities for the treatment of transplant patients likely to be severely restricted. Modelling suggests that based on a 25% clinical attack rate and an 8 week cycle critical care capacity would have to increase by around 250% to meet the predicted demand. The availability and ability of retrieval teams to travel is also likely to be restricted or compromised.
- 7.3 If an accurate and readily available means of testing for the existence of the virus is available then retrievals and transplants would be suspended for those donors or patients found to be infected. In the absence of any means to test for the occurrence of the virus, the lower immune response of transplant patients and the likely impact on the transplant service the guidance to the transplant service would be to suspend the retrieval and transplant of donor organs across the UK (**other than for life saving transplants**). For any life saving transplants that it is possible to carry out, the transplanted patients would need to be treated with the most effective anti-viral flu agent available.

Impact on UKT

- 7.4 The UKT plan is to continue to provide core services for the registration of patients and the allocation of donor organs. Although as detailed above it is likely that the national allocation scheme will be significantly restricted the plan is to support whatever level of transplant services it is possible to maintain.

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7.5 The level of staff absence from work during a pandemic will depend significantly on the nature of the pandemic virus when it emerges. The planning assumptions set out below are based on the worst-case scenario.

The table below shows the likely impact on staff, and the transplant service throughout the four UK alert levels. It assumes the availability of NHS resources to maintain some level of transplant services.

UK Alert Level	Duration	Loss of Staff due to flu	Impact on Transplant Services
One	Four weeks	Normal	Normal
Two	Two weeks	50% cumulative (Peak of 10-15% in area affected)	If an accurate and readily available means of testing for the existence of the virus is available then retrievals and transplants would be suspended for those donors or patients found to be infected. In the absence of any means to test for the occurrence of the virus the guidance to the transplant service would be to suspend the retrieval and/or transplant of donor organs (other than for life saving transplants), in and from hospitals located in cluster areas.
Three	One week	50% cumulative (Peak of 10-15% in areas affected)	If an accurate and readily available means of testing for the existence of the virus is available then retrievals and transplants would be suspended for those donors or patients found to be infected. In the absence of any means to test for the occurrence of the virus the guidance to the transplant service would be to suspend the retrieval and/or transplant of donor organs (other than for life saving transplants), in hospitals located in cluster areas.

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Four	Fifteen weeks	50% cumulative (peak of 10-15%)	If an accurate and readily available means of testing for the existence of the virus is available then retrievals and transplants would be suspended for those donors or patients found to be infected. In the absence of any means to test for the occurrence of the virus the guidance to the transplant service would be to suspend the retrieval and transplant of donor organs across the UK (other than for life saving transplants).
Recovery	Four weeks	Normal	Normal

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Staffing

- 7.6 In order to maintain core services in the duty office for the allocation of organs and in data services for the registration of patients UKT will need to ensure that there are sufficient trained staff to provide these services. Given the worst-case scenario of a 50% clinical attack rate UKT will need to establish arrangements for other staff to provide support for core services. Under normal operating conditions at least two trained duty officers will be on duty at all times and up to four staff for patient registration. Given that it takes three months to train a duty officer it is not considered practical to provide training in the full range of duty office procedures to other staff to provide cover in the event of a pandemic. Unless trained staff maintained their knowledge by regular duty office shifts the training would be ineffective and a number of staff would need to be fully trained to ensure that some would be available to provide cover during a pandemic. The plan therefore provides for a pool of core staff to work alongside one trained duty officer and trained to a level to provide assistance during the period of a pandemic. Similar precautions will be taken within Data Services to cover registration and maintenance of the waiting list. This will be covered with familiarisation training for members of the data support team. The training for support duty officers and patient registration staff will commence if UK alert level two is reached.
- 7.7 It is important to ensure that UKT is able to deal with the demands on information sources during a pandemic so that key messages, which aim to inform and reassure the transplant community, UKT staff, the general public, media, transplant charities and other stakeholders, are disseminated. In order to maintain the public web site and a pro-active and reactive media and PR service, at alert level 2 a small number of communications staff with previous experience of maintaining and updating web content will be given additional training to provide cover and back up to the core publications staff. Similarly, marketing and campaigns staff will be given additional training to provide support for the media and public relations section.
- 7.8 UKT has well-established 24hour on call rotas and has identified spokespeople who are media trained.
- 7.9 Although staff will be positively discouraged from coming to work if suffering from flu or in close contact with someone with flu, other staff will be required to come to work and a comprehensive training and education programme will be put in place to ensure staff do come to work throughout a flu pandemic. Staff not involved in the provision of core services or providing additional support for those services will still be required to maintain the provision of other services and functions. Only where it is considered appropriate and practical will staff be required to work from home. Communication channels to be used will include dedicated briefings to specific groups of staff, intranet, email, UKT noticeboard, and personal communication such as telephone and letter.

Advice to staff

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- 7.10 The chief Medical Officer's advice on how to reduce the risk of catching or spreading influenza during a pandemic and what to do in the event of catching influenza (appendix 1) will be issued to all staff at UKT alert level 2.
- 7.11 Specific advice will also be drafted in response to anticipated concerns from staff such as: what impact will the flu pandemic have on my job; will annual leave be cancelled; will time taken off to care for a sick dependent be paid or taken from annual leave.

Staff travel

- 7.12 At alert level two and during the period of a pandemic only essential staff travel and external meetings will be permitted. Similarly the number of meetings at UKT will be kept to the absolute minimum necessary. Whenever possible meetings will be conducted using teleconferencing and on-line meeting facilities.

External communication

- 7.13 Established external communication channels which include the public website, organ donor line (established business continuity plan would be deployed as necessary by contractor), media releases, email, personal contact (letter/phone call) etc will be used to deliver the key messages.
- 7.14 At alert stage 2 briefing material with key messages and answers to anticipated questions will be drawn up for dissemination by appropriate UKT personnel to identified stakeholders. All messages will need to be consistent across the NHS.

Provision of key services

- 7.15 The plan assumes the continuing provision of key utilities water, electricity, gas and telephony to the UKT site. For electricity an on-site generator that has sufficient capacity to provide power for up to three weeks backs up the supply to the building. The ongoing maintenance and provision of facilities management services is provided by an external contractor and although it is likely that there may be some disruption the risk of a complete cessation of service is not considered high given the size of the contractor. The high standard of maintenance of the UKT site and the resilience of key systems also mitigates against the likelihood of any significant failure during the period of a pandemic. Never-the –less only essential maintenance work necessary to ensure the provision of critical systems

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will be undertaken during a pandemic and all routine maintenance and project work cancelled. Cover already exists for the provision of switchboard services with staff other than receptionists trained in its use.

- 7.16 The ability of UKT to provide core services is dependent on the continuing provision of the IT infrastructure. The National Transplant Database and its associated applications and systems are crucial for the operation of the organ allocation schemes and for registering patients. The system has a high degree of resilience with automatic fail over to back up systems in the event of a failure. In the event of a complete failure of the IT systems or partial or complete unavailability of the UKT site the database is backed up to an offsite facility, specifically to enable the continuing operation of core services. The average availability of core UKT IT systems is 99.9% excluding planned downtime and the operation of the offsite back up facility is tested at least annually. On the basis of the reliability and resilience of the core systems the risk of loss or failure during the period of a pandemic is considered low. To reduce the risk to a minimum, no development work, systems upgrades or changes will be carried out during the period of a pandemic. The only work carried out on core systems during this period will be essential maintenance. UKT has access to both landline and radio links for the provision of telephone services which provides resilience in the event of an interruption to either service. Again, no development work, systems upgrades or changes will be carried out to the telephone systems during the period of a pandemic, other than if required for essential maintenance. Separate UKT IT Flu Plans have been developed to address IT staffing and identify and prioritise activities during a pandemic.

Support services

- 7.17 UKT on site staff responsible for the provision of HR services are limited in number and will have as their priority providing support and advice to staff affected by the pandemic, maintaining accurate records of staff absence and providing returns to NBS payroll for the payment of staff salaries. All non-urgent work such as recruitment is likely to cease.
- 7.18 Finance staff will have as their priority ensuring the ordering of essential goods and services. At alert level 2 action will be taken to increase stocks of necessary items such as organ boxes, stationery, cleaning and hygiene materials and other essential items identified by directorates.

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Appendix 1

What can I do?

You can reduce, but not eliminate, the risk of catching or spreading influenza during a pandemic by:

- Covering your nose and mouth when coughing or sneezing, using a tissue when possible
- Disposing of dirty tissues promptly and carefully – bag and bin them
- Avoiding nonessential travel and large crowds whenever possible
- Maintaining good basic hygiene, for example washing your hands frequently with soap and water to reduce the spread of the virus from your hands to your face, or to other people
- Cleaning hard surfaces (e.g. kitchen worktops, door handles) frequently using a normal cleaning product
- Making sure your children follow this advice.

If you do catch flu:

- Stay at home and rest
- Take medicines such as aspirin, ibuprofen or paracetamol to relieve the symptoms (following the instructions with the medicines). Children under 16 must not be given aspirin or ready made flu remedies containing aspirin
- Drink plenty of fluids.

These measures are for your own health and to avoid spreading the illness to others.

More information will be given at the time of a pandemic through leaflets, websites and the media. Such information will tell you how you can protect yourself and your family and what to do if you think you are infected. Some people will be recommended treatment – further information will be given at the time.

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For more information:

- Visit www.nhsdirect.nhs.uk
- Go to NHS Direct Interactive on digital satellite TV by pressing the interactive button on the remote control
- Call NHS Direct on 0845 4647 (calls charged at local rates)
- Visit www.dh.gov.uk/pandemicflu and www.immunisation.nhs.uk
- Pick up the leaflet Pandemic flu from your doctor's surgery or clinic.