UK Escalation Triggers and Response Options

Purpose:

This paper sets out the possible for triggers for further HMG measures, and what those measures would be. Ministers are invited to discuss and agree:

- the triggers for escalation
- the expected response to the immediate triggers that could be met
- to work across government to develop a response to the medium-term escalation triggers

Background

In the last week, the outbreak of Wuhan-Coronavirus has escalated from 41 cases in Wuhan on 12 January, to 583 cases overall by 23 January. The ~~spread of the~~ outbreak has also expanded from its epicentre in ~~within~~ Wuhan city to ~~a~~ smaller ~~numbers in~~ cities in the same province (Hubei) and farther afield across ~~round the region and across~~ mainland China. Guided by advice from the CMO, PHE, and independent experts, we have stepped up the UK readiness:

- Increasing the risk assessment to the UK from 'very low' to 'low'
- Updating travel advice to advise against all but essential travel to Wuhan
- Issuing NW-CoV specific guidance to the NHS, including NHS 111, on identification and isolation ~~management~~ of possible cases
- Developing a prototype test (one of the first in the world) for this specific virus, which will be rolled out in the NHS in the coming days.
- Implementing a comprehensive package of port health measures, including enhanced monitoring of direct flights from Wuhan (before China grounded all flights from the city) and extending measures in priority order to other international airports across the UK.

Commented [VTJ1]: NERVTAG meets next week to discuss clinical management of severe cases. I don't feel we've yet issued advice on case management – more case identification and isolation

The roll out of port health measures will include the establishment of a 24/7 PHE cell at Heathrow by the weekend, and the extension of a physical PHE presence to other airports with direct flights to China (i.e. Gatwick and Manchester). We will also be making efforts to follow up all the passengers who arrived on the direct route before enhanced monitoring started.

An emerging infectious disease is a well-established part of the National Security and Risk Register and so the UK is generally well prepared. This paper sets out what the further steps may be required ~~-~~in the event of further escalation of this outbreak. The triggers that CMO identified at the start of the outbreak are:

- Cases in healthcare workers
- Sustained Person to person transmission
- Wider geographical spread where the virus is acquired outside Wuhan

1. International spread

As long as the outbreak is centred around Wuhan and Hubei Province, the primary public health measure adopted is for containment, thereby reducing the risk of imported cases. The recent severe restrictions on outward movement of persons from Wuhan by Chinese authorities will work towards international containment. In addition, tThe specific package of port health measures are intended to either identify a case at the border or, more likely, be able to advise a traveller who to contact (NHS 111) if they feel unwell in the subsequent days, and providing public reassurance.

In the event that another city becomes a similar focal point for the diseases (e.g. there is significant circulation of the diseases between people with no link to Wuhan, known as sustained community transmission) there may be merit in extending the 'enhanced monitoring' to any direct flights from that new location. This decision would need to be made on a case by case basis.

However, spread of the diseases could also be at a scale that suggests containment in one or two cities is no longer viable, e.g. there is sustained community transmission in multiple loci across Asia. At this point, public health advice would be that the port health measures in place would no longer provide the same benefit, beyond the public information advice in place. Importation of cases into the UK would Aat this point become inevitable (if it had not already happened), and we would recommend standing down the 'enhanced monitoring' that attempts to identify cases on flights (which is already unlikely), and ~~focus i~~instead focus public health resources on identifying, and isolating ~~and treating imported~~ cases in the UK with the intention of preventing or delaying the establishment of sustained community transmission in the UK. This would include continuing the port measures that provide information to all international passengers on what symptoms they should look out for and how they should contact the NHS if they feel unwell.

If a British national become unwell overseas (this could happen at any point in outbreak evolution), the UK may be asked to support the care of thate individual. There would not likely be a medical reason for repatriating the patient to the UK, but HMG may be asked by the patient or their family nonetheless.

2. Confirmed Cases in the UK

Since this outbreak began the UK has tested 14 'possible' cases. CMO advice is that an individual case in the UK is likely at some point. The NHS is already well prepared to identify and treat infectious disease cases such as WN-CoV. Suspected cases are isolated and treated by staff in high-level Personal Protective Equipment, and a confirmed case would be transferred to one of our High Consequence Infectious Disease units. We would also begin tracing the contacts of any confirmed case with the intention of preventing the establishment of sustained UK community transmission. These processes are well established and have been used for Ebola (in 2014/15), and more recently for imported cases of MERS (another coronavirus) and Monkeypox.

In the circumstances of a UK confirmed case, standard contract tracing would be initiated, with advice to contacts to self-isolate, for example not attending work or school, depending on the nature of their contact with the case.

If a UK healthcare worker fell ill due to exposure in the workplace, this would be a trigger for a more significant escalation. ~~Given the uncertainty around the disease, we are not sure of the epidemiology of the disease. Consequently, there may be a significant numbers of patients with underlying health conditions, who may have had high-risk exposure.~~ This may require the decontamination of the healthcare setting, extensive contact tracing and follow

Commented [VTJ2]: Isn't there a point here that we can't meet all flights from Asia and this becomes unsustainable

Commented [VTJ3]: I want this in because there is a separate point in escalation when we may not have enough high-level facilities or high-level PPE.

Commented [VTJ4]: In my view an infected HCW in the UK context is a pretty minor trigger

Commented [VTJ5]: This

Commented [VTJ6R5]:

up, and the need to reissue and update infection prevention and control guidance for healthcare staff and premises.

I think you absolutely have to add something here about nominal airborne HCID bed capacity (it's probably <30 patients), expanded surge HCID capacity (I am guessing still <100 beds) and another trigger that might occur at this stage or later when basically the IDUs are full and we have to start 'normal ward care' (in cohorts) for WN-CoV patients. Likely at this point we will also be drawing on pandemic PPE stockpiles and to be clear there will not be enough high-level PPE in this scenario.

Another trigger point that might run in parallel (given that the best estimate of hospital fatality rate is 14%) is that we run out of ICU beds. To note the in-hospital fatality rate in 2009 for H1N1pdm09 was 8% (see FLU-CIN papers) and the UK at that point ran down to ICU bed availability at the worst point in the low single figures. Thus there are two missing triggers that I see. I'm not wedded to them going in Section 2 if people would prefer 3. But IMO they could occur in late 2 or 3.

3. Significant spread and transmission in the UK

Should it become clear that the virus is able to transmit efficiently ~~well~~ from human to human (which is unknown at this stage), then an imported case or cases could, over time, lead to localised ~~sustained~~ community transmission within ~~part or all of~~ the UK. If the virus had not spread widely internationally, this could trigger an effort at containment in that part of the UK – for example by discouraging large social mixing at major social or sporting efforts. There would be a key role for the local authorities and Local Resilience Forum. However, it is far more likely that significant community transmission spread in the UK would only happen after there had also been significant global spread and sustained community transmission in multiple other locations. In this case, local social distancing measures would be ineffective as there would be multiple introductions from other places.

If community transmission occurs in the UK, it most likely that widespread community transmission would follow on rapidly; this would be a ~~there was very significant spread and transmission in the UK, then there is a~~ tipping point at which ~~where~~ we would cease contact tracing, as it would no ~~is no~~ longer be possible or a ~~plausible route to stop the virus.~~

Likely, by this stage the number of UK cases in hospital will have exceeded the capacity of the HCID units, and of the HCID surge plan. The NHS would review and indicate plans for surging existing capabilities, particularly the dedicated isolation facilities, and stockpile of Personal Protective Equipment and key medicines. As not all this information is held centrally, we advise introducing national assurance of local capabilities now, as a contingency.

It is highly unlikely that spread and transmission would reach pandemic proportions – this did not happen with SARS or MERS – and such a a scenario would be a 'rising tide' event that would materialise over months, not days. However, our Reasonable Worse Case Scenario planning for an influenza pandemic (along the lines of 1918 'Spanish flu') does include medical stockpiles, and plans for significant reconfiguration of health, social care and possibly other public services.

Conclusion

Ministers are invited to agree this paper and accompanying annex, and to work together on responses to the more serious escalation triggers.