H24 (DoH)   ANNEX B

Overall Assessment = HIGH
Overall Impact score = 3
Likelihood score = 3

Risk

Emerging infectious diseases

Outcome Description

Precise impact will depend upon the effectiveness of antibiotics and antivirals in fighting infection. Based upon the experience of the outbreak of Severe Acute Respiratory Syndrome (SARS) in 2002, the worst case likely impact of such an outbreak originating outside the UK would be cases occurring amongst returning travellers and their families and close contacts, with spread to health care workers within hospital setting.
  • Short term disruption to local hospital intensive care facilities
  • Possible disruption of several weeks to elective procedures
  • Public concern about travel, within and beyond the UK and possible international travel restriction advice.

Specific Assumptions

  • New infection can spread rapidly from person to person and has done so before the first case(s) is identified.
  • The new infection does not originate within the UK but rapid global spread to UK via air travel.
  • Viral infection for which there is no effective treatment other than patient management though possibly some effect from antivirals if given swiftly.
  • The possibility of spread within a hospital setting, prior to the infection being identified in the patient.

For an outbreak of a new infection such as H5N1 avian influenza, which does not spread readily from person to person, these points are equally valid though likely to yield a lower level of casualties, due to lesser person to person transmission but could have a higher fatality rate amongst cases of around 50%. Such an infection gives a longer period in which to put effective control measures in place to prevent spread.

Background (DH)

Over the past 25 years, more than 30 new or newly recognised diseases have been identified. Most of these have been diseases that are naturally transmissible, directly or indirectly from animals to man. It is highly probable that such an infection will arise in another country and possible that it could be brought to the UK before it is identified. SARS spread to infect over 8,000 people worldwide within an eight month period before it was contained. A new arena virus was identified in south Africa in

2008 after being imported from Zambia in one person and affecting five people, four of whom died, before being locally contained.

Likelihood Rationale (DH)

There has been no recurrence of SARS since the outbreak in 2003 was contained and the last cases since that time were from laboratory exposure and not community acquired. Although new zoonotic risks arise with greater frequency than the 1/20 in 5 years, the ability of these infections to spread with such severity between people, as SARS did, is in fact unusual. This is evidenced by the H5N1 avian flu scenario, which represents a serious new zoonosis but, so far over a 4 year period, shows no evidence of rapid or easy person to person transmission. On balance, a likelihood score of 3 (<1/20 but >1/200 over 5 years) is therefore considered a reasonable assumption.

Score = 3

Economic Impact (DH)

Based on:
- 100 fatalities and 2000 casualties
- A reduction in tourism for the UK as a whole of 4% over 12 months. Tourism represents 4% of GDP (1.46trillion)

Score = 4

Fatalities/ Casualties Impact (DH)

- Max 100 fatalities across the country and 2,000 casualties based upon fatality rate between 5% and 10%.

- Expect 10 potential cases and 100 follow up contacts for every single confirmed case of infection as seen in past SARS outbreak

Fatalities Score = 3

Casualties Score = 4

Social Disruption impact (CCS)

Effects may include:

- Significant restrictions on travel to and from the country of origin.
- 'Worried well' impact would be felt at a national level. This would be due to elevated levels of public concern, particularly due to the unknown nature of the disease. In addition, if the disease is spread by foreign travel there are a number of different entry points into the UK and so we could see cases spread across the UK relatively quickly, increasing public concern.

- Prolonged regional (or even short-term national) disruption to the availability of primary care appointments (due to surge in appointments due to concerns over symptoms).
- Short term disruption to local hospital intensive care facilities.
- Possible disruption of several weeks to elective procedures.
- Sporadic closures of school anticipated where cases in children are confirmed.

Score = 3

Public outrage (CCS)

Even though the Government and other authorities can do little to prevent the emergence of natural diseases, there would be some outrage directed at the authorities associated with a perceived failure to contain the outbreak, given the numbers of fatalities and casualties. There would also be anger that diseases were not prevented from spreading to the UK. Blame would be dependent on where the disease has come from but there would be strong views that this should have been prevented.

Score = 2

Public anxiety (CCS)

Given the 'unknown' factor of new and emerging infectious diseases, there would inevitably be public fear/anxiety as a result of this risk especially as a result of the indiscriminate nature of the hazard. The government handling of the outbreak and the media reaction will also play a key part in the level of anxiety. There is an expectation that something would soon push it off the front pages.

Score = 2