

Message

From: Whitty, Chris [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0B3EE62E0CA04E978730B14F9B416A1E-WHITTY, CHR]
Sent: 02/02/2020 21:34:06
To: Jeremy Farrar [J.Farrar@[REDACTED] PD]
CC: Patrick Vallance [P.Vallance1@[REDACTED] PD]
Subject: RE: Travel. Official sensitive

Yes. Tho testing asymptomatics has little value as the test is very insensitive in them according to Maria Zambon who developed it.

But we will need to do a complete pivot once transmission become widespread, if it does, from a prevention response based on active case finding and isolation (current) to a treatment response. Plenty for SAGE to consider.

C

From: Jeremy Farrar <J.Farrar@[REDACTED] PD >
Sent: 02 February 2020 21:25
To: Whitty, Chris <Chris.Whitty@[REDACTED] PD >
Cc: Patrick Vallance <P.Vallance1@[REDACTED] PD >
Subject: Re: Travel. Official sensitive

The boundary between "Asymptomatic" and "mild" even "moderate" is a vague one.

I suspect from the various reports published and from Wuhan clinicians that the infectious period is indeed broader than we see in others (flu SARS MERS). For public health consideration I assume UK would be planning to test and trace contacts for a phase of the (presumed) epidemic - but there will come a point when that phase ends and the focus shifts to broader public health measures and clinical care of those with moderate-severe clinical syndrome and testing would be focused on that group.

Continuing to test and contact trace all, after the first phase makes little sense unless by then there is a over the counter test!

On 2 Feb 2020, at 21:18, Whitty, Chris <[Chris.Whitty@\[REDACTED\] PD](#)> wrote:

Yes, and [REDACTED] Name the first author a good friend of mine.

But there are reports that the index case was in fact symptomatic. Which is tricky, because listening to the USA coronavirus taskforce today they put a huge amount of weight on this short report for their quite far-reaching decisions.

My view is that even if there is some asymptomatic transmission (and no biological reason it is impossible) it would be surprising if symptomatic were not more infectious and v symptomatic a lot more infectious. I am doubtful the R from asymptomatic alone (ie if symptomatic patients were all removed from the system) would be above 1. That needs to be tested, but the operational implications of identifying every asymptomatic case are profound. An important question for SAGE.

Chris

From: Jeremy Farrar <J.Farrar@ PD >
Sent: 02 February 2020 18:57
To: Whitty, Chris <Chris.Whitty@ PD >
Cc: Patrick Vallance <P.Vallance1@ PD >
Subject: Re: Travel. Official sensitive

Sure you have seen this

<https://www.nejm.org/doi/full/10.1056/NEJMc2001468>

From: "Whitty, Chris" <Chris.Whitty@ PD >
Date: Sunday, 2 February 2020 at 17:21
To: Jeremy Farrar <J.Farrar@ PD >
Cc: Patrick Vallance <P.Vallance1@ PD >
Subject: RE: Travel. Official sensitive

Sorry, Jeremy pressed send too early. this was supposed to say here is our thinking on delay (read from bottom).

It is for obvious reasons not for wider dissemination but thought you should have background for SAGE discussions.

Chris

From: Whitty, Chris
Sent: 02 February 2020 17:19
To: Jeremy Farrar <J.Farrar@ PD >
Cc: Patrick Vallance <P.Vallance1@ PD >
Subject: FW: Travel. Official sensitive

From: Whitty, Chris
Sent: 02 February 2020 17:14
To: john.edmunds@ PD, neil.ferguson@ PD, Vallance, Patrick (GO-Science) <P.Vallance1@ PD >
Cc: Van Tam, Jonathan <Jonathan.VanTam@ PD >; Harries, Jenny <Jenny.Harries@ PD >; @dfid.gov.uk PD >; Aston John <John.Aston@homeoffice.gov.uk >
Subject: Re: Travel. Official sensitive

I think there are some advantages to delays, but if only a few weeks the question (not an epi one) is whether they are proportionate.

The main ones are:

Push further away from peak NHS winter pressures
Reduce the time in URTI season so reduce number of false alarms on clinical grounds

possibly (only possibly) R goes down out of winter season as it does with most other airborne infections
Buys time for organisation.

We know more about the virus and it's clinical presentation so can respond more effectively

I agree for vaccines and probably drugs this is not going to make a difference.

Set against this will be many operational, economic, political, social and trade disadvantages.

These are not sage questions, but I think it's useful for people to understand why the question of delay is not an academic one.

Chris

From: John Edmunds <John.Edmunds@ **PD** >
Sent: Sunday, February 2, 2020 6:08:04 PM
To: Whitty, Chris <Chris.Whitty@ **PD** >; neil.ferguson@ **PD** >; neil.ferguson@ **PD** >; Vallance, Patrick (GO-Science) <P.Vallance1@ **PD** >
Cc: Van Tam, Jonathan <Jonathan.VanTam@ **PD** >; Harries, Jenny <Jenny.Harries@ **PD** >; @dfid.gov.uk **PD** >; Aston John <John.Aston@homeoffice.gov.uk >
Subject: Re: Travel. Official sensitive

Chris,

I would agree with your assessment, broadly, and that of Neil. A concerted travel ban with our closest neighbours, from whom indirect travel from China would be expected, is going to be far more effective than us going it alone. However, even that is likely to have relatively limited impact, buying a few weeks at best. The question is what could you achieve in this time? Very little in terms of development of therapeutics of vaccines – this will take much longer. The only benefit would be to give the Chinese enough time to bring the epidemic under control. There is little evidence that they are managing to do this. Looking carefully at the growth rate, and assessing whether there is any evidence of it slowing down is therefore critical.

This is not easy, as you have to take account of delays to confirmation of cases. At present, I don't see any reliable evidence of a slow-down. Hence, unless this changes, there seems little point in trying to put in place very restrictive measures.

All the best,

John

From: "Whitty, Chris" <Chris.Whitty@ **PD** >
Date: Sunday, 2 February 2020 at 12:24
To: Neil Ferguson <neil.ferguson@ **PD** >, "Vallance, Patrick (GO-Science)" <P.Vallance1@ **PD** >, John Edmunds <John.Edmunds@ **PD** >
Cc: "Van Tam, Jonathan" <Jonathan.VanTam@ **PD** >, "Harries, Jenny" <Jenny.Harries@ **PD** >, @dfid.gov.uk **PD** >, John.Aston@homeoffice.gov.uk >
Subject: RE: Travel. Official sensitive

Thanks Patrick; **PD** Neil, JVT for comments (John if possible in due course).

It sounds as if unless John disagrees this is a reasonable first pass.

Neil's points on a likely upper estimate of the impact of even concerted action being a few weeks is important for policymakers to understand in any decisions.

Chris

From: Ferguson, Neil M <[neil.ferguson@PD](mailto:neil.ferguson@pd)>
Sent: 02 February 2020 12:08
To: Whitty, Chris <Chris.Whitty@PD>; Vallance, Patrick (GO-Science) <P.Vallance1@PD>; john.edmunds@PD>
Cc: Van Tam, Jonathan <Jonathan.VanTam@PD>; Harries, Jenny <Jenny.Harries@PD>; pd@dfid.gov.uk>; Aston John <John.Aston@homeoffice.gov.uk>
Subject: RE: Travel. Official sensitive

I agree in general with 1 to 4. A couple of points:

- First, it is quite likely (but not certain) that there have been a number of undetected importations into the UK. Certainly into the EU. Detection rates are not going to be anywhere near 100%. This doesn't mean we shouldn't take the optimistic view that it is still worth trying to prevent more importations, but it does change the assessment of the likely impact of any new measures and therefore the cost-benefit balance of those measures.
- In general, the more intense and concerted the action, the greater the reduction in imports. If the EU stopped all travel to and from China and the UK followed suit, that would undoubtedly have a larger impact than the UK going it alone. A G7-only move would likely be intermediate in effectiveness between us doing it alone and the whole EU adopting such a measure.
- Our latest (and more reliable) estimates of epidemic doubling time in Hubei are between 3.5 and 6 days, depending on the data used. Central estimate of 5 days. (As an aside growth rates in cases in the rest of China are unreliable – they are generally only testing people with a link to Hubei, so many provinces are likely missing local transmission).
- Assuming an underlying 5 day doubling time nationally in China, a 50% reduction in travel will – under the assumption local transmission hasn't already started – delay arrival here by 5 days. A 75% reduction by 10 days, 87.5% by 15 days. The EU stopping all travel to & from China might possibly delay things by up to 3 weeks maximum.
- Harder to assess what a UK-only measure might do (would require a much more detailed analysis). What's happened in the last week or so in China and the UK has likely reduced travel by 50-75% though.

Best,

Neil

From: Whitty, Chris <Chris.Whitty@PD>
Sent: 02 February 2020 11:13
To: Vallance, Patrick (GO-Science) <P.Vallance1@PD>; Ferguson, Neil M <neil.ferguson@PD>; john.edmunds@PD>
Cc: Van Tam, Jonathan <Jonathan.VanTam@PD>; Harries, Jenny <Jenny.Harries@PD>; pd@dfid.gov.uk>; Aston John <John.Aston@homeoffice.gov.uk>
Subject: Travel. Official sensitive

Dear Patrick, Neil, John

The points below will need proper discussion in SAGE on Tues, but given actions by other countries I am almost certainly going to have to give a provisional view before SAGE meets.

All of these issues have multiple angles, medical, social, political, economic, humanitarian, but I want to be able to give as good an answer as I can **narrowly on the epidemiology** as that is an essential part of the equation. We all know the data are far from complete, we cannot do proper models which give accurate estimates of risk based on the current data. So given the potential need for extreme speed we need to give a best estimate based on basic epidemiological principles. I will put my current view, and it would be good to get your view if you agree, broadly agree but want to nuance or disagree. There are two aims: to stop transmission to the UK, or to slow it.

1. Currently the travel advice to China is against all travel to Hebei and all but essential travel to China. My current view is that in the absence of other interventions raising this to 'all travel to China' from the UK would make little difference to slowing transmission, and none to stopping it.
2. Stopping all direct flights to China from the UK, assuming all other flights (including other countries to China) continue. I think this would make little difference to transmission, and very limited to slowing because of multiple alternative routes.
3. Stopping all travellers from China to the UK for 14 days and following a pattern as the USA (which has very different travel patterns etc) has done. My view is this might slow but not by much, and would not stop assuming the UK alone did this.
4. If all the G7 / trade partners put a ban on flights, or travel from China, that would have a much greater likelihood of slowing (but not stopping) importation. How much the slowing would be is difficult to estimate but would be unlikely to be a prolonged period.

Can you let me know if you disagree or want to nuance? This is a holding position pending further data.

Am cc'ing John A and PD

Chris

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