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Exercise Mercury - Phase 2 12 March 2021 Summary Report

Introduction

Exercise Mercury will consist of 3 phases; aiming to consider the challenges, preparedness and response activity required for the UK to respond to the emergence of a significantly different variant of SARS-CoV-2 that impacts upon the efficacy of existing vaccines and detection methods. Phase 1 consisted of three workshop-based exercises; each focused on one of three different functions: Test, Trace and Contain. A common scenario was used across all three functions with the goal of highlighting any gaps or issues in these areas and informing the development of Phase 2. Phase 2 was sponsored by the DCMO and was a joint health exercise. The output from Phase 2 will contribute to cross government contingency planning activity and Phase 3 to inform wider preparedness.

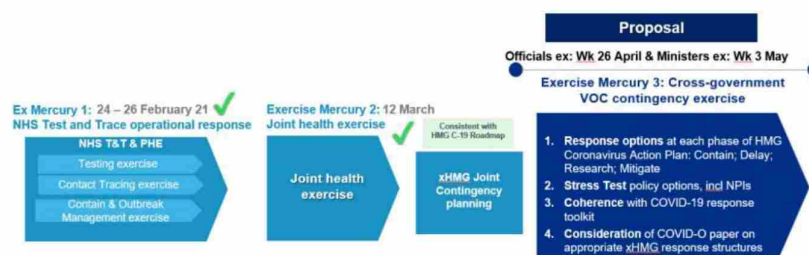


Figure 1: The three phases of Exercise Mercury

Exercise Aim:

To consider the challenges, preparedness and response activity required to respond to a significantly different variant of SARS-CoV-2.

Exercise Objectives:

1. To examine detection, national and international surveillance links and initial considerations for a significantly different variant of SARS-CoV-2
2. To consider X-HMG preparedness and contingency for a new variant of SARS-CoV-2
3. To identify process and/or capability gaps in the current approach and suggest actions to address the response using experience from the current COVID-19 response (across decisions, data, communication, leadership, accountabilities, hand offs etc)
4. To strengthen existing response arrangements and inform future contingency planning for this threat

Key Points from Phase 1:

- Review of the PHE Risk Assessment to assist with identifying trigger points to initiate response
- Organisational Preparation: Identify suitably qualified and experienced people to respond at pace
- Reducing the timelines of detection to response process
- National support to Local: Use of experienced Local Outbreak Teams supported from the National level
- Clear data sharing processes to be established to enable the right information being available at the right level.

Overview of the Exercise

Phase 2 was focused on the health specific aspects of a VOC in order to identify important aspects and activity for cross-government contingency planning and inform the development of Ex Mercury Phase 3. The key to the exercise series was to highlight the risk that a significantly divergent SARS-CoV-2 variant may require a material change to extant processes such as vaccines, microbiology, Test, Trace and Contain and therefore may justify a revised set of reasonable worst case planning assumptions. Targeted challenge questions were considered in the context of a scenario over two sessions. Session one considered the arrival of a VOC into the UK; the second session escalated the situation with clusters of cases in the UK.

The exercise questions were intended to encourage discussion and maintain focus with a view to producing a coherent output to inform future work. The exercise was facilitated by Emma Reed (Director EPRR DHSC) and the participants were encouraged to use the MS Teams chat box function to register comments and supporting ideas and suggestions. Detailed notes from the discussions were captured by EXCON. An attendee list can be found at Annex A.

Summary

The exercise successfully shared thinking from a range of different organisations and assisted in focusing on areas for further discussion and planning; in particular:

- Benefits of developing timely VOC policy options including a walk-through at ministerial level in Phase 3, in order to confirm a coherent understanding of the issues and rehearse the cross HMG response.
- Review, and where necessary, revise the focus of pivoting resources from national to local levels recognising the benefits of local knowledge of the challenges and relationships already established with local communities including minority ethnic or national communities. Engaging with harder to reach communities needs to start early to build trust (start now to be effective in 6 months' time).
- The realisation that an outbreak in a migrant workforce will present its own challenges and that further contingency planning would aid an effective and speedy response to such a scenario.
- Further development of Pan UK coordination; a common situational awareness and the ability to implement complimentary VOC strategies will benefit the UK as a whole including the Devolved Administrations
- Realisation that there exists a potential for a VOC to establish itself at the same time as a flu outbreak in autumn/winter 2021 coupled with the potential for reduction of efficacy against a new VOC. It was noted that time is not on our side and that therefore contingency planning and policy development needs to occur without delay before the summer.
- This summary report identifies six suggested actions as a result of Exercise Mercury phase 2.

Headline Issues

1. Detection and Surveillance

Assessment before VOC is understood

Questions were raised regarding how the fictional Polish VOC would be classified as a significant threat to existing outbreak management strategies, including vaccination and antivirals. It was noted that Ministers would need triggers in order to change the response structure and associated infrastructure. It was also accepted that there would initially be a lack of understanding about how far the VOC had spread in the early stages of the VOC arrival in UK. The type of quarantine (home or hotel) is dependent upon whether the country of origin is assessed as red or amber. HPTs and Local Authorities would conduct Enhanced Contact Tracing as effective outbreak management would be key to success.

Suggested Action 1:

Identify response triggers to prompt decisions to enhance and prioritise action to counter VOC spread

Cluster management would be important but nationwide coordination work across HPTs and Local Authorities would be important to help establish links and consistent response processes.

Lack of data about new VOC

Knowledge about the characteristics of a new VOC will be limited given a lack of whole genomic sequencing (WGS) capability in potential countries of origin. This will be addressed as soon as the UK has access to the VOC and is able to sequence the variant. It was noted that it was important to consider how to build WGS capacity in other countries and if Porton Down laboratories have full access to the tests to assess viruses and ring-fenced lab capacity for VOC work required.

Developing reliable clinical data requires access to and evaluation of a live virus, this limits how early the UK can act. It was suggested that a precautionary approach be adopted and consider imposing restrictions and NPIs early and reduce once the significance of the threat is more clearly understood. It will take time to understand the characteristics of a new VOC due to:

- Access to samples of the virus can be difficult to obtain
- Culturing the virus can take several weeks
- Further testing will require an additional 2 weeks

Migrant Workers

It was noted that migrant workers levels of compliance tend to be low. Added to which they are frequently low paid, poorly housed and difficult to access by traditional health communication. Living conditions are often over-crowded increasing the risks of contracting COVID-19. Detection and surveillance could be targeted where migrant workers are known to operate and could include wastewater sequencing. It was noted that Scotland uses wastewater testing to identify type and location of virus.

Suggested Action 2:

Examine the challenges posed by a migrant workforce infected with or at risk of infection from COVID-19 and determine the new public health actions required to mitigate the risks

Contingency planning and exercising the issues associated with this area were recommended in particular, the issue of how to ensure that migrant workers isolate or quarantine. Migrant workers are important to the UK economy and there is a lack of domestic workers prepared to fill these types of jobs for these levels of remuneration. If migrant workers are expected to pay for isolation/quarantine will they want to travel to UK? Further consideration is also needed to understand potential options such as local alternatives to monitored quarantine. It was suggested that the provision of housing for quarantine with regular testing might be an option.

Given that this is such a complex and controversial issue, it might benefit Ministers and senior leaders to consider potential options.

Possible walk-through topics:

- Identify likely proactive decision-making opportunities where information may be limited
- Understand the trigger points for decisions and actions
- Understand timeliness of communication, messaging and target audience
- Foresight Team – speed of VOC versus senior decision-making

2. Contingency Planning/Response

Trigger Points

In order to allow for timely decision making, it was noted that clear trigger points need to be identified and shared cross HMG.

- For planning: what are the prevalence levels that would give HMG more concern regarding a new VOC?
- “Go hard, go early” on a new VOC and de-escalate when the situation is more clearly understood but need to understand severity of the health impact to 'justify' the 'go hard go early' approach.
- Are local NPIs sufficient? There is a need to understand the trigger and thresholds for national containment.

Suggested Action 3:

Identify VOC response triggers points and associated decisions to be taken in early stages of potential UK importation of a new VOC

Pan UK Strategy

The need for a Pan UK strategy was identified to coordinate outbreaks across the UK. Strategy about the use of NPIs differs across the four Nations. This would benefit from, being defined and agreed in advance. JBC has a role to coordinate the risk assessment for ministers on behalf of four Nations.

Suggested Action 4:

Agree an approach for a coordinated Pan UK strategy in response to a new VOC

Local vs National approach

Participants discussed the merits of local versus national approaches to managing a new significantly different VOC. It was suggested that it would be worth reviewing local outbreak management plans in light of learning identified from the last 12 months. Discussion highlighted that switching the control of testing from a national to local level may be beneficial. This would require a shift in national strategy.

3. Resources

Whole Genome Sequencing (WGS) capacity

The exercise underlined that we could never have enough whole genomic sequencing capacity and it would be important to work across all sectors (public, private and academic) to generate capacity. This capacity has doubled since summer 2020. If LFDs are insensitive to the VOC, the UK can generate 500,000 PCR tests a day plus follow up positives with reflex assay to find a VOC more quickly than was previously possible.

Local Authorities (LAs)

When considering the response from a LA perspective the following observations and recommendations were made:

- Maintain and review local outbreak management plans, surge testing, contact tracing in order to inform testing strategies
- Develop a Toolkit for Local Authorities to utilise in response to a new VOC
- Consider the future regional/local contact tracing capability that should exist post the current COVID response and how this could be supported nationally.

4. Communications

Data Sharing

In order to support other activities, data sharing needs to be timely and appropriate. The exercise raised the question of how to maintain/improve cross border information sharing.

PHE/C-19 Task Force currently look out for VOCs reported abroad, therefore it would be reasonable to assume that the UK would be aware of an emerging VOC outside the UK. Any variant is risk assessed and compared to existing known variants. This includes WGS which allows some assessment of the VOCs likely characteristics, if the VOC is declared internationally. Constant monitoring exists both nationally and but can vary internationally in quality and reliability.

Potential impact on re-vaccination programme and Winter Flu Season 2021

The exercise discussion noted that this Autumn/Winter, there will be a COVID-19 re-vaccination programme and a flu vaccination programme. Given the reduced prevalence of flu (winter 2020/21) due to social distancing and isolating of vulnerable people, flu vaccine producers may struggle to produce an effective vaccine. These factors make for a problematic communication challenge to the public.

Suggested Action 5:

Define the communication challenges posed by an autumn/winter period with a possible new VOC and a significant Winter Flu spread and develop mitigating actions

Public Messaging

Any response activity will need to be supported by effective communication; within HMG as well as to the public (including migrant workers). Discussion drew out the following:

- Communicate early, often, coherently and in a joined-up manner but led by local teams who understand the audience
- To understand and explain that the current crisis is not over, what to expect and what to prepare for; this would benefit from rehearsing.
- It was stressed that it would be unwise to declare 'victory' over COVID-19.
- Prepare the public for continuing life with SARS-CoV-2
- How do we get the public to understand the risks better?
- Potential for renewed restrictions and impact of NPI – how to communicate this potential message
- Continued need for high level testing regimes
- Encourage people to come forward for testing despite challenges surrounding loss of pay if isolating and targeting hard to reach populations
- Continued culturally competent guidance/messaging to minority communities to increase take up of vaccines – start now, and build
- Strategy in place in case a new significantly VOC can defeat current vaccines as there will be a delay in producing a new vaccine.
- Added challenge to overcome vaccine hesitancy that a new vaccine is good for them
- Targeted message to low paid migrant workers and their employers

Suggested Action 6:

Develop and refine messaging across a range of potential situations in advance to avoid delays when it is needed

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