HM Treasury

NR
Team: Science & Innovation, EGU
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Date: 07/04/20

**Submission: Covid-19 vaccine strategy**

**For decision**

**Issue**

We have set out principles for you to consider, which would form the basis of a UK strategy on accelerating Covid-19 vaccine development.

**Timing**. Routine

**Summary**

Parallel international and domestic approaches are needed to accelerate development, manufacture and distribution of a safe and effective Covid-19 vaccine. The nature of the challenge is very different on R&D vs on manufacturing/distribution, and we will have to balance carefully our domestic and international interests. This paper sets out a proposed approach.

**Recommendation**

1. That you approve the approach set out on Covid-19 vaccine strategy, that we should operationalise it through the relevant XWH structures, and offer you follow up advice on specific funding asks regarding new vaccine options. **Do you agree?**

## Background

1. Given the global economic impacts of Covid-19 and the costs to the UK of implementing containment measures (the OECD estimates that annual GDP could fall by 2% for each month of strict containment measures), there is an overwhelming case for at-scale HMG investment to bring forward the end of, and reduce future need for containment measures; including through accelerating the development, manufacture and distribution of safe and effective Covid-19 vaccines. Our immediate (and interlinked) objectives should be to:

    a. ensure the UK is in a position to vaccinate the right proportion of its population as soon as a vaccine becomes available; and, in parallel
    b. accelerate international collaborative vaccine development in order to achieve a global public good

2. Vaccine development is high risk and poses significant technical and time challenges: there are several scientific approaches, each with different manufacturing requirements, and we may need multiple vaccines for different sub-populations. Although there are over 40[1] candidate Covid-19 vaccines in development globally, it is expected it will take at least 1 year to develop, test and manufacture a vaccine for mass deployment.

3. By pooling resources and risk internationally through R&D financing, we can increase the global chances of success in the development phase. The scale of investment required to achieve a safe and effective vaccine will be substantial, and there is no guarantee that any single country will be successful, so there is a very strong case

[1] WHO, as of 20 March

trials taking place. However, the three most promising candidate vaccines we are aware of have different manufacturing needs, which lend themselves differently to population-scale production:

a. the vaccine being developed at Imperial College London has the advantage of a rapid manufacturing process and could be produced end-to-end on a mass scale using existing UK facilities.

b. the adenovirus-vector vaccine being developed at Oxford (one of the 8 leading vaccines being funded by CEPI), could be developed and tested in the UK, but may need additional industrial capability to produce at scale. We understand that the Oxford team have been in early talks to partner for manufacture with the US firm Merck. While this would bring major industrial capability on board, any private sector agreement could carry significant risk for the UK if not legally watertight, as it could result in e.g. the US being prioritised for distribution. HMG is engaging closely with the Oxford team to ensure the UK national interest is reflected in any commercial partnership.

c. Moderna's mRNA vaccine (also funded by CEPI) could potentially be manufactured end-to-end in the UK, but at present would require us giving them access to facilities owned by I&S we would need to consider any implications of this in terms of limiting manufacturing capacity to support other vaccine R&D. Moderna are also in discussion with a number of other European countries and have slowed the pace of talks with HMG: technical talks and a pitch to the CEO have taken place over this week and last, and we expect discussions to continue next week. We understand they will set out a