



Department  
of Health &  
Social Care

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Rt. Hon. Jeremy Hunt MP  
Chair of the Health and Social Care Committee

[Sent via email]

Dear Mr Hunt,

I was asked by the committee to write setting out the likelihood or otherwise of a joint flu-Covid-19 vaccine. There are two aspects to this, firstly developing a vaccine for Covid-19, secondly administering it jointly with the flu vaccine.

Vaccine development and delivery is a complex process. Neither HIV nor malaria have vaccines. These are serious diseases and have been around for considerable time, which illustrates the challenge of developing a vaccine even with considerable will and time.

All vaccines have a high rate of failure during their clinical trials, so there is a possibility that none of the vaccines currently being explored for coronavirus will prove to be successful. From the start we have been clear this is a complex process that could take many months or years and has no guarantees. We cannot put a guaranteed date on when we will get a vaccine, but the considerable activity we are undertaking undoubtedly increases the odds of a successful outcome. In my view there is a realistic possibility we will have some form of vaccine by late Spring 2021, and possibly some smaller quantities by the very end of 2020. The Joint Committee on Vaccination and Immunisation (JCVI) will advise on patient group prioritisation according to vaccine characteristics (when known), clinical prioritisation and available quantities over time.

The Vaccines Taskforce (VTF) leads on vaccine development and sourcing for the UK. It is taking an end-to-end approach that encompasses every stage of the development process, including looking at new approaches to vaccine discovery, development and manufacturing.

In addition to the two leading candidates, from the University of Oxford and Imperial College London, the VTF continues to monitor the landscape of coronavirus vaccine development, and is engaging with multiple developers both here in the UK and internationally to ensure the UK is in the best position possible to support the discovery, manufacture and mass-deployment of a successful vaccine should one or more candidates prove successful.

The interim results of the Phase I/II trial for the University of Oxford vaccine were published on the 20 July. This indicated no obvious safety concerns, as well as T-cell and antibody responses against the SARS-Cov-2 virus. The results are, so far, promising but proof of clinical effectiveness in large Phase III trials is awaited for this and several other candidates.

The UK government has secured early access to 340 million vaccine doses through agreements in principle with six separate vaccine developers. This includes agreements with;

- a. BioNTech/Pfizer for 30 million doses
- b. Oxford/AstraZeneca who will work to supply 100 million doses of the vaccine being developed by Oxford University, aiming to deliver up to 15 million doses to the UK in 2020 as part of an £80 million government investment assuming Regulatory approval is achieved.
- c. GlaxoSmithKline and Sanofi Pasteur to buy 60 million doses.
- d. J&J Janssen for 30 million doses
- e. Novavax for 60 million doses
- f. Valneva for 60 million doses, with an option to acquire a further 40 million if the vaccine is proven to be safe, effective and suitable.

There are more in the pipeline. The UK is also the largest contributor in the world to the Coalition for Epidemic Preparedness Innovations (CEPI), an alliance to finance and coordinate the development of new vaccines, having donated £250m to date. A major priority for the VTF is to shape the COVAX proposal put forward by GAVI/CEPI for a global pooled procurement arrangement to make it attractive to a wide range of countries. The VTF are working with Gavi/CEPI to agree a proposal, build support for this from a core group of countries and agree a realistic timetable for launch.

Clearly developing a licensed Covid-19 vaccine is yet to be achieved. Only once that has been done, and we know the vaccine or vaccines we are working with will we be able to decide if a

combination vaccine with flu is ever going to be a realistic prospect, bearing in mind that the, at least for now, flu vaccines must be reformulated and given annually.

Combination vaccinations are in regular use, for instance measles, mumps and rubella (MMR), so a combination vaccine is not a new or controversial idea but in the case of MMR all three viruses are live (attenuated strains) and one could not easily mix live and inactivated (killed) viruses in the same formulation. Most influenza vaccines for adults are inactivated; some Covid-19 vaccines are live. A joint influenza and Covid-19 vaccination could be useful practically, in terms of administering it in a single sitting. But as well as the scientific complexities of producing such a vaccination we would need to evaluate whether we would give the Covid-19 vaccine to the same group as we do flu, and at the same time, and at the same interval. This will depend in large part on the properties of the Covid-19 vaccine or vaccines that we develop.

As you can see as simple answer to the above question is not possible, it will depend on what Covid-19 vaccine or vaccines end up being the one/s we use. For the time being, and given the immense pace of Covid-19 vaccine development (10-18 months rather than the 10 years that is typical) we can reasonably assume that vaccines for Covid-19 and flu will be separate vaccines for years to come; furthermore they may need to be given at intervals from each other (separated in time) until there are data generated which demonstrate safe concomitant administration without loss of immunogenicity.

Yours sincerely,

A handwritten signature in black ink, appearing to be 'J. Van-Tam', written in a cursive style.

Professor Jonathan Van-Tam

MBE, BMedSci, BM BS, DM, FFPH, FRCPATH, FRSPH, FRSB, Hon FFPM, CBiol, CSci.

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