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Vaccinating the UK against covid-19

Primary care can do it but needs extra support to do it fast, safely, and effectively

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The global covid-19 pandemic has led to over 50 000 deaths in the UK, disrupted health services, and led to massive increases in unemployment and government debt.^{1–3} Following the government's failure to implement an effective test, trace, and isolate programme—so successfully deployed by countries such as South Korea and New Zealand—mass vaccination against covid-19 offers us the best way to finally bring the pandemic under control.⁴ It is essential that the covid-19 vaccination programme is implemented well and avoids the many mistakes made during other components of the government's response to covid-19.⁵

Primary care should be at the heart of the UK's covid-19 vaccination strategy. General practices are embedded in communities, easy to access, and enjoy public trust. A decade of underinvestment, however, has led to serious shortages of primary care doctors, overstretched primary care teams, and a reduced ability to respond to new challenges.⁶ The government should take immediate steps to reduce pressures on primary care by, for example, suspending appraisals, revalidation, and CQC inspections to relieve the administrative burden on practices and enable them to step up to this critical task.

Extra funding is required to pay for new vaccination centres, provide existing clinics with facilities such as equipment for transporting and storing vaccines, and to meet the costs of administering a complex vaccination regime to people living in care homes, or being cared for in their own homes.

Funding will also be needed for additional trained staff to administer vaccines and provide administrative support. Primary care services for the management of acute and long term problems, and preventive programmes such as children's immunisations, must continue to operate normally. Additional capacity should be created to ensure the vaccination programme does not displace or delay other essential clinical work. Covid-19 vaccines will take longer to administer to patients than the other vaccines currently offered by the NHS.

Logistics

Two types of vaccine have been submitted for approval in the UK. Adenoviral vector vaccines such as the Oxford vaccine (ChAdOx1 nCoV-19) are logistically easier to use as they can be stored long term in standard vaccine fridges and administered by primary care teams working in their usual premises.⁷ By contrast, the mRNA vaccine developed by Pfizer-BioNTech must be stored at very low temperatures and used soon after defrosting.⁸ This

vaccine will require large vaccination centres that can handle a higher throughput of patients.

As more data on safety and efficacy become available, the government should focus its attention on a small selection of vaccines, rather than the current scattergun approach to vaccine procurement. This would simplify the overall programme, cut costs, and help ensure that patients receive two doses of the same vaccine, both at the right time.

We do not yet know how long vaccine induced protection will last.⁹ Booster doses of vaccine may be required at regular intervals, and the NHS should plan accordingly. Good recall systems will be essential, preferably provided by general practices, which keep computerised medical records and have extensive experience in delivering large vaccination programmes safely.

Large, carefully designed postmarketing studies will be essential to track vaccine failures (infections following vaccination) and adverse events. The UK's computerised primary medical care record systems and comprehensive national health coverage makes the UK well placed to generate these and other important data, particularly if linked to other routine datasets such as Hospital Episode Statistics and mortality records. Early problems afflicting the test, trace, and isolate programme, such as failure to notify infected patients' general practitioners,¹⁰ can be avoided by recording covid-19 vaccinations in each patient's primary care record rather than a centralised and disconnected IT infrastructure.^{10 11}

Care should be taken not to create unrealistic expectations of timescale while the NHS, and in particular primary care, prepares to administer the millions of vaccinations so critical to the health, wellbeing, and economic security of the UK.¹² Errors and consequent delays would be inexcusable when the stakes are this high.

The government has invested considerable funding in other components of the covid-19 response, including private sector test and trace services. The funding currently earmarked for vaccinations is small in comparison. The full cost of delivering a rapid, comprehensive, and successful vaccination programme should be provided promptly so lifesaving vaccinations can begin at scale, proceed rapidly through all at-risk populations in the UK and finally allow something resembling normal life to return.

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- 1 50 000 COVID-19 deaths and rising. How Britain failed to stop the second wave. *Reuters* 2020 Nov 24. <https://uk.reuters.com/article/health-coronavirus-britain-newwave/special-report-50000-covid-19-deaths-and-rising-how-britain-failed-to-stop-the-second-wave-idUSL8N2I94SG>
- 2 Maringe C, Spicer J, Morris M, et al. The impact of the COVID-19 pandemic on cancer deaths due to delays in diagnosis in England, UK: a national, population-based, modelling study. *Lancet Oncol* 2020;21:1023-34. doi: 10.1016/S1470-2045(20)30388-0 pmid: 32702310
- 3 Office for Budget Responsibility. Economic and fiscal outlook—November 2020. <https://obr.uk/efo/economic-and-fiscal-outlook-november-2020/>
- 4 Majeed A, Seo Y, Heo K, Lee D. Can the UK emulate the South Korean approach to covid-19? *BMJ* 2020;369:m2084. doi: 10.1136/bmj.m2084 pmid: 32467112
- 5 Scally G, Jacobson B, Abbasi K. The UK's public health response to covid-19. *BMJ* 2020;369:m1932. doi: 10.1136/bmj.m1932 pmid: 32414712
- 6 Majeed A. Shortage of general practitioners in the NHS. *BMJ* 2017;358:j3191. doi: 10.1136/bmj.j3191 pmid: 28694250
- 7 Ramasamy MN, Minassian AM, Ewer KJ, et al Oxford COVID Vaccine Trial Group. Safety and immunogenicity of ChAdOx1 nCoV-19 vaccine administered in a prime-boost regimen in young and old adults (COV002): a single-blind, randomised, controlled, phase 2/3 trial. *Lancet* 2020;S0140-6736(20)32466-1. doi: 10.1016/S0140-6736(20)32466-1 pmid: 33220855
- 8 Bower E. Which COVID-19 vaccines are lined up for roll-out on the NHS? <https://www.gpon-line.com/covid-19-vaccines-lined-roll-out-nhs/article/1700217>
- 9 Centers for Disease Control and Prevention. Frequently asked questions about covid-19 vaccination. <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/faq.html>
- 10 Carrell S, Garside J. Coronavirus testing hit by struggle to match results with NHS records. <https://www.theguardian.com/world/2020/may/28/coronavirus-testing-hit-struggle-match-results-with-nhs-records>.
- 11 Lind S. GPs may need to record Covid vaccinations on separate IT system, says NHS England. <https://www.pulsetoday.co.uk/news/technology/gps-may-need-to-record-covid-vaccinations-on-separate-it-system-says-nhs-england/>
- 12 Iacobucci G. Covid vaccine: GPs need more clarity on logistics and planning, say leaders. *BMJ* 2020;371:m4555. doi: 10.1136/bmj.m4555 pmid: 33229375

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