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BRIEFING

Covid-19: What is happening with the vaccine rollout?

Matthew Limb

How many people have been vaccinated in the UK?

As of 21 January,¹ 4.7m vaccinations have been given in England (4.3m of which were first doses), Wales had given 190 435 first dose vaccinations, and Northern Ireland 160 396 vaccinations (including 21 960 second doses). Scotland² had given 240 487 first doses by 17 January 2021.

Which groups of people are being prioritised?

The Joint Committee on Vaccination and Immunisation's nine priority groups for vaccination³ are residents in a care home for older adults and their carers; over 80s and frontline health and care staff; over 75s; over 70s and clinically extremely vulnerable people; over 65s; under 65s with underlying health conditions; over 60s; over 55s; and over 50s. The government's target is to vaccinate all care home residents and their carers, all over 70s, and all clinically extremely vulnerable people with a first dose by 15 February, and offer all UK adults a vaccine by autumn.

How many sites are delivering vaccines?

More than 200 hospitals and around 1000 GP led sites are delivering vaccinations. A network of large scale NHS vaccination centres is also expanding, with the government announcing 10 new openings on 18 January. Pharmacies are also delivering vaccinations.

Are there any problems with supply?

Danny Mortimer, chief executive of NHS Confederation, told *The BMJ* that some GP led sites had reported not being told how much vaccine to expect. BMA GP committee chair Richard Vautrey said continuing supply problems are "impacting the speed of the operation." He said, "Practices are only given notice of delivery week by week, which makes it difficult to book appointments for patients. Despite having the staff and resources available, GP led sites are not able to vaccinate patients at the rate they want to if they had continued access to the vaccine."

Why are there problems with supply?

Global demand is one likely factor. Health secretary Matt Hancock told MPs last week that supply was "lumpy," but manufacturers were working "as fast as possible." In the same week, Pfizer said that it would temporarily reduce its vaccine deliveries to Europe while it upgraded its production capacity in Belgium.

Is there regional variation in the vaccination rollout?

Yes. Up to 20 January 2021, London had administered the lowest number of vaccinations in England (518 427).¹ The Midlands (888 340 vaccinations) followed by the north east and Yorkshire (787 411) had administered the most.

How is this variation being tackled?

NHS authorities have said that available supply should go to areas that still have a large number of patients in the highest three priority cohorts left to vaccinate. An NHS England and NHS Improvement spokesperson said, "To minimise any geographic inequalities in vaccine uptake some sites will not receive any vaccine for the week commencing 25 January." But the *Health Service Journal*⁴ reported that sources in the north east and Yorkshire region had voiced "major frustration" at their vaccine supply being halved. The Welsh government, which came under fire after the first minister Mark Drakeford said that vaccines supply had to last until February to prevent "vaccinators standing around with nothing to do," has since insisted it has stepped up the pace of rollout. And the Scottish government said it was working to resolve reports of "patchy supply" of vaccine to GPs.

Why are some parts of the country doing better than others?

The BMA said GP practices joined the programme "in waves" as the vaccine became available, so some areas have been active longer than others. Mortimer said there had been instances where practices that didn't have the infrastructure to deliver the Pfizer vaccine "are not being rapidly approved by their clinical commissioning group to deliver the Oxford AstraZeneca vaccine," which was causing frustration and may be a factor in the regional variation.

How is vaccination being coordinated?

Local GP led sites in England are connected by the National Immunisation Management System Service (NIMS) which identifies, books, and tracks patients in priority groups. Only citizens who are recorded as not having received a vaccination on NIMS will be invited to book an appointment through the national booking system at one of the large vaccination centres. But the BMA has warned of a lack of coordination between the national centres and local practices, amid reports of multiple appointments being offered and patients not knowing whom to contact. An NHS England and NHS Improvement (NHSEI) spokesperson defended the programme, saying, "The NHS is prioritising supply to areas

depending on the need to vaccinate priority cohorts, not mass sites over GPs. All patients are able to wait for their GP to contact them if they prefer, rather than a vaccination centre.”

Are some vaccine doses being wasted?

Exasperated doctors have reported feeling pressured to discard unused vaccine doses if there were no takers. Many said they were acting under instruction from local officials to focus strictly on priority groups needing first doses, rather than giving second doses to others, including health and care staff. Louella Vaughan, a consultant acute physician at the Royal London Hospital, tweeted on 13 January,⁵ “Our hospital has been told to bin unused vaccine rather than give staff second doses.” Other doctors on Twitter echoed this,⁶ saying rules about not offering second doses were absolute.

What should doctors do with leftover doses?

Latest guidance by NHSEI on 19 January⁷ said, “If there is vaccine supply and deployment capacity, but a degree of uncertainty on whether clinics will be full, further invitations can be made to people from the next eligible cohort (across cohorts 1-4) in order to utilise available supply. Vaccination beyond the current cohorts (1-4) can be offered if there is a risk that current vaccine stock will become unviable if not used.” An NHSEI spokesperson told *The BMJ*, “There is absolutely no reason why vaccine should be wasted. Local vaccination sites should be managing their appointment lists to ensure all appointments are filled and they have a back up list of patients and staff who can receive the vaccine at short notice.”

What does the Medicines and Healthcare Products Regulatory Agency say about using the end of vial vaccine?

The Pfizer BioNTech vaccine is manufactured with enough volume for five doses. It is normal, however, for some vials to contain a slight excess volume and in some cases this could allow a full sixth dose to be extracted. The MHRA has amended the product information to state that this is permitted. It says, however, that care needs to be taken to ensure a full 0.3ml dose can be administered—where this cannot be achieved when diluted as recommended, the vial and its contents should be discarded after the fifth dose has been extracted.⁸

For the Oxford AstraZeneca vaccine, guidelines are that after the withdrawal of the first dose, the vial must be used within six hours (stored at 2-25°C), and any unused vaccine must be discarded.

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3 Department of Health and Social Care. Joint Committee on Vaccination and Immunisation: advice on priority groups for covid-19 vaccination, 30 December 2020. 6 January 2021. www.gov.uk/government/publications/priority-groups-for-coronavirus-covid-19-vaccination-advice-from-the-jcvi-30-december-2020/joint-committee-on-vaccination-and-immunisation-advice-on-priority-groups-for-covid-19-vaccination-30-december-2020.

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5 Louella Vaughan @DrLKVaughan. 13 January 2021. <https://twitter.com/DrLKVaughan/status/1349420772641669120>.

6 Dr Sarah Harwood @hennymiddle. 20 January 2021. <https://twitter.com/hennymiddle/status/1352021915301515264>.

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