

Monkeypox vaccines to be piloted in smaller but equally effective doses

Three NHS sites are set to begin a pilot offering eligible patients smaller but equally effective doses of the vaccine used for the UK's monkeypox outbreak, stretching existing supplies to protect more people.

The safe and clinically-approved approach, known as 'fractional dosing', has been commonly used in other worldwide outbreaks when vaccine supplies are constrained. It will be introduced in one sexual health clinic in Manchester from today (Monday), and a further 2 in London shortly.

Fractional dosing could maximise the number of doses that can be administered without compromising protection, with [clinical study results](#) showing it provides a near-identical immune response in patients.

Under the approach, eligible people aged 18 and over will be offered a 0.1ml dose of the smallpox Jynneos vaccine, instead of the 0.5ml dose that is typically administered. This will potentially enable up to a 5-fold increase in the number of people that can be offered vaccination.

Fractional dosing has recently been authorised in the US by the Federal Drug Administration for its own monkeypox response. The European Medicines Agency Emergency Task Force has [also approved the approach](#).

The UK Health Security Agency (UKHSA) has reviewed the evidence in detail alongside the Joint Committee on Vaccination and Immunisation (JCVI) and is now working with NHS England to test the feasibility of the approach at pilot clinics in Chelsea and Westminster NHS Foundation Trust, Central and North West London NHS Foundation Trust, and Locala Health and Wellbeing in Greater Manchester.

In a [letter to Directors of Public Health](#), UKHSA chief executive Professor Dame Jenny Harries has confirmed the details of the pilot, with data gathered by the clinics used to inform planning for possible wider use when more doses of the vaccine arrive in the UK.

Dr Mary Ramsay, Head of Immunisation at UKHSA, said:

Global supplies of the smallpox vaccine used to combat monkeypox are limited but we acted early to ensure the UK obtained the maximum number of doses available.

Adopting this tried and tested technique will help to maximise the reach of our remaining stock, including the 100,000 doses due to arrive in the country next month, potentially enabling us to offer protection for many more thousands of people.

We will continue to remain agile in our response to the monkeypox

outbreak and will adapt our approach as new science and advice becomes available.

Professor Sir Andrew Pollard, Chair of the JCVI, said:

The use of fractional dosing will allow more people to be vaccinated sooner by optimising use of the constrained vaccine supply, and this approach is expected to reduce the spread of monkeypox.

Dosing in this way has been successfully used in outbreaks of other viral diseases around the world and existing data we have reviewed indicates this should not compromise protection.

Dr Claire Dewsnap, President of the British Association for Sexual Health and HIV (BASHH), said:

BASHH absolutely supports the UKHSA led fractional dosing pilots, assessing feasibility in UK sexual health clinics. If acceptable, this would offer us the opportunity to roll out vaccine to those eligible much faster and would address the issues of short supply of vaccine across the world.

Dr Will Nutland, Honorary Assistant Professor at the London School of Hygiene and Tropical Medicine and a co-founder of PrEPster, said:

Fractional dosing provides the potential for many more people to receive vaccination to protect against monkeypox. Given the current global shortage of vaccine supply, this decision is pragmatic and welcome.

Communities we are engaging with are keen to receive vaccination as soon as possible, and the pilots provide the opportunity to understand the acceptability and feasibility of providing vaccination this way.

Evidence shows that fractional dosing, when correctly administered, is as effective as the vaccination method currently in use. We must now collectively move to ensure that those who are given the opportunity to receive vaccination are fully informed and are confident to come forward when invited.

In addition to piloting the fractional dosing approach, UKHSA has determined that, due to the limited vaccine supply at this time, the post-exposure offer of vaccination should be reserved for those close contacts who are at highest risk of severe illness. The JCVI supports this approach.

This change does not affect the eligibility for the wider vaccination programme (pre-exposure offer) but means that post-exposure vaccines will be prioritised for people with immunosuppression, children under the age of 5 years and pregnant women.

These individuals will continue to be offered a 0.5ml dose of the vaccine as we await further clinical data on fractional dosing for these groups.

UKHSA published its [latest technical briefing](#) on the outbreak on Friday.