

## **BartsMS COVID-19 vaccine advice for people with Multiple Sclerosis**

It is great news that COVID-19 vaccines are now becoming available for the population. It remains important for you to have the influenza vaccine, and diligently follow government advice to reduce your risk of COVID-19 infection.

The new COVID-19 vaccinations are considered safe in a person with MS treated with a MS disease-modifying treatment (DMT). People will be prioritised and those with the highest risk factors will be treated first. Please check the latest guidance on priority groups at <https://www.gov.uk/coronavirus>.

For people with MS, commonly asked questions around COVID-19 vaccination include:

- 1) Will the vaccine negatively affect my MS?
- 2) If I am on a DMT, will I develop an effective immune response?
- 3) Do I have to change anything about my DMT?

The degree of effectiveness of the COVID-19 vaccines in individuals across all ages, those with long-term medical conditions, and those taking other treatments, has not been fully explored. Whilst information and our understanding is steadily increasing over time, we do not expect that the risk of vaccination will at any point outweigh its benefits to people with MS (there may be rare exceptions in people with additional special circumstances, such as a history of severe allergy).

### *Will COVID-19 vaccination negatively affect my MS?*

In the large trials where the currently available vaccines have been tested, *some* people with MS were included. Based on this, and evidence from vaccinations against other infections in people with MS, such as Influenza (Flu), we do not anticipate any negative effects of the COVID-19 vaccination on people with MS compared to those without MS. The vaccines currently available are either not live (Pfizer-BioNTech, Moderna) or live but unable to replicate (AstraZeneca-Oxford). Based on current evidence, all COVID-19 vaccines available at this stage are, thus, considered safe in people taking immuno-modulatory or immuno-suppressive medication.

### *If I am on a DMT, will I develop an effective immune response (“Will the vaccine work in me”)?*

Some uncertainty remains whether being on an MS drug that affects your immune system reduces your ability to develop effective immunity against COVID-19. From studies looking at the response to other vaccines of people with MS treated with some immunotherapies, we expect that the build-up of immunity against COVID-19 following vaccination may be reduced in people taking some MS DMTs. **However, this does not mean vaccination will not be effective.** There is no anticipated harm from the COVID-19 vaccination, even in the immunosuppressed (exceptions may apply to people with severe allergy).



*Do I have to change anything about my DMT?*

We generally agree with the advice issued by the MS Society

(<https://www.mssociety.org.uk/what-we-do/news/ms-society-medical-advisers-release-consensus-statement-covid-19-vaccines>), and elaborate here on some specific MS drugs:

- We have no reason to believe that most DMTs available on the NHS will reduce efficacy of vaccines. This covers glatiramer acetate (Copaxone, Brabio), teriflunomide (Aubagio), dimethyl fumarate (Tecfidera), beta interferons (Avonex, Betaferon, Rebif, Extavia) and natalizumab (Tysabri).
- Specific other DMTs:  
If you are scheduled to receive *for the first time* **ocrelizumab (Ocrevus)**, **fingolimod (Gilenya)**, **siponimod (Mayzent)**, **alemtuzumab (Lemtrada)**, and **cladribine (Mavenclad)**, you should discuss with your team whether in your case it is preferable to receive at least the first dose of vaccine (Dose 1, see below) **prior to** starting any of these MS treatments. This will depend on your particular circumstances, and so the precise advice you get may differ from other people. The schedule we recommend depends on the vaccine you are due to receive:
  - If you are due to receive the Astra-Zeneca/Oxford vaccine, the first dose should be given 2-4 weeks before starting your MS treatment. The second dose should be given at least 3 months after starting your MS treatment.
  - If you are due to receive either the BioNTech/Pfizer or the Moderna vaccine, the first dose of these vaccines should be given 5-7 weeks, and the second dose 2-4 weeks before starting your MS treatment. The vaccination will therefore be complete before your MS treatment commences.
  - The above difference in the delay between the two doses administered is due to the different trial data of the BioNTech/Pfizer and Moderna vaccines (gap of 3 or 4 weeks, respectively), and the Astra-Zeneca/Oxford vaccine (gap of up to 3 months).

However, since NHS England has advised that *all* COVID-19 vaccines should currently be given 12 weeks apart, this gap (12 weeks) between the 1<sup>st</sup> and 2<sup>nd</sup> dose of vaccine is going to be the principal standard for the time being.

If you are *already receiving* treatment with one of the above MS drugs, we advise as follows:

- **Fingolimod & Siponimod:** Take the vaccine allocated to you (BioNTech/Pfizer, Moderna or Astra-Zeneca/Oxford) as per the non-MS population. Whilst a reduced response to the COVID-19 vaccine may be seen, it is **not** advisable to stop treatment with fingolimod or siponimod.

- **Alemtuzumab & Cladribine:** Leave a gap of at least 3 months between your last course of treatment and receiving the COVID-19 vaccine.
  - If you received a first dose of the Astra-Zeneca/Oxford vaccine *before* starting alemtuzumab or cladribine, the delay to receiving the 2<sup>nd</sup> dose of the vaccine should be at least 3 months after your alemtuzumab or cladribine course.
  - If you are due to receive the BioNTech/Pfizer or Moderna vaccine, the delay to receiving the 1<sup>st</sup> dose of the vaccine should be at least 3 months, with the 2<sup>nd</sup> dose given 3 weeks later.

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- Should you be due a 2<sup>nd</sup> course of Alemtuzumab or Cladribine, we recommend you speak to your MS team. Often, the 2<sup>nd</sup> treatment course can be safely delayed for several months thereby providing flexibility to complete your COVID-19 vaccination at least 2 weeks prior to the next course of your MS treatment.
- **Ocrelizumab:** To ensure the best response of your immune system to the COVID-19 vaccine, we recommend the timing of your vaccination in relation to your ocrelizumab infusion schedule is adjusted as follows:
    - Astra-Zeneca/Oxford vaccine:  
Dose 1 should be given about 5 months after your last ocrelizumab infusion (Infusion A), and at least 2 weeks before your next ocrelizumab infusion (Infusion B)  
Dose 2 should be given at least 3 months after Infusion B, and at least 2 weeks before the subsequent infusion.

- BioNTech/Pfizer or Moderna vaccines: Dose 1 should be given about 4 months after your last ocrelizumab infusion; Dose 2 should be given 3-4 weeks later, and at least 2 weeks before your next ocrelizumab infusion.

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- If you are due to receive ocrelizumab, and are also contacted for your COVID-19 vaccine, please discuss the timing of these treatments with the Daycase & Research Unit (Ward 11D) on 0203 594 0638 so your infusion dates can be adjusted, if required.

**Please note that you will be contacted directly by the NHS/your GP regarding your appointment for COVID-19 vaccination. Please do not contact the MS service for a COVID-19 vaccination appointment since we do not have this information.**

**However, if you are due to receive Ocrevus (Ocrelizumab), Mavenclad (Cladribine) or Lemtrada (Alemtuzumab), and you know when you are due to receive your COVID-19 vaccination, please let your MS Nurse Specialist know to discuss your care management further.**

Please consider joining the UK MS register at <https://ukmsregister.org/> which will help Health Care Professionals provide you with the best advice.

We would also like to encourage you to participate in a study evaluating the immune response to COVID-19 and vaccination in people with MS. The study requires no additional visit(s) to the hospital, but instead you will receive study packs through the post. If you want to find out more about this study, you can email the study team directly ([k.george@qmul.ac.uk](mailto:k.george@qmul.ac.uk) or [n.k.vickaryous@qmul.ac.uk](mailto:n.k.vickaryous@qmul.ac.uk)) for further information, or ask your MS nurse or doctor to pass your details on. Thank you!