

COVID-19 vaccination after stem cell or bone marrow transplant

Introduction

NHS England has been working with the British Society of Blood and Marrow Transplantation and Cellular Therapy and Anthony Nolan to ensure that those who have received a Stem Cell Transplant or CAR-T therapy are offered COVID-19 re-vaccination. In patients who receive stem cell transplants or CAR-T therapy, any protective antibodies from exposure or vaccination prior to transplantation are likely to be lost and it is unclear whether the recipient acquires the donor's immunity.

Any previous COVID-19 vaccination is to be discounted and it is recommended that the individual is re-vaccinated as if they have never received a COVID-19 vaccine. They are likely to require re-vaccination with other vaccines too (Green Book Chapter 7)¹.

In COVID-19: the green book, chapter 14a², the Joint Committee on Vaccination and Immunisation (JCVI) has advised that '*individuals who have received a bone marrow transplant after vaccination should be considered for a re-immunisation programme for all routine vaccinations and for COVID-19*'.

To note that this guidance applies to those who have received CAR-T therapy for haematological malignancies only. It does not apply to individuals who have received CAR-T therapy for other reasons.

The British Society of Blood and Marrow Transplantation and Cellular Therapy (BSBMTCT) has prepared statements on vaccination and re-vaccination of HSCT and CAR-T patients, available at <https://bsbmtct.org/bsbmtct-and-covid>.

In summary

- HSCT and CAR-T recipients who have received prior doses of a SARS-CoV-2 vaccine pre-procedure should be considered never-vaccinated in keeping with May 2021 Green Book guidance and offered full re-vaccination with a SARS-CoV-2 vaccine course. The JCVI has advised that individuals who were immunosuppressed at the time of their first two doses including those who have received a stem cell transplant in the previous 24 months receive a three-dose SARS-CoV-2 primary schedule.
- Consider re-vaccination with a SARS-CoV-2 vaccine from 2-6 months post autologous and allogeneic HSCT.
- Consider re-vaccination with a SARS-CoV-2 vaccine from 3-6 months following CAR-T therapy.

In addition, the BSBMTCT recommends vaccination or re-vaccination from 3-6 months after HSCT or CAR-T for individuals aged 12-15 years. This follows the recommendation from the JCVI in July 2021 that children aged 12-15 who are at increased risk of serious disease, including those who are immunosuppressed, are offered a UK-authorised COVID-19 vaccine.

Annex A is a draft letter which can be used to inform a patient's registered general practitioner regarding the vaccination requirement. It is recommended that a copy of the letter is also sent to the patient as per normal practice.

1. Public Health England. [Immunisation of individuals with underlying medical conditions: the green book, chapter 7](#) (2020).

2. Public Health England. [Immunisation against Infectious Disease; chapter 14a](#) (2021).

Dear

Important information reference – COVID-19 vaccination for:

Patient's name:

DOB:

NHS number:

I am writing to inform you that the patient named above has received a haematopoietic stem cell transplant (HSCT) or CAR-T therapy.

In COVID-19: the green book, chapter 14a, the Joint Committee on Vaccination and Immunisation (JCVI) has advised that “individuals who have received a bone marrow transplant after vaccination should be considered for a re-immunisation programme for all routine vaccinations and for COVID-19”.

The British Society of Blood and Marrow Transplantation and Cellular Therapy (BSBMTCT) has prepared statements on vaccination and re-vaccination of HSCT and CAR-T patients, available at <https://bsbmtct.org/bsbmtct-and-covid>.

This patient's transplant team have assessed that this patient is suitable for re-vaccination with a further three doses of a SARS-CoV-2 vaccine.

The safety and immune response of SARS-CoV-2 re-vaccination are being investigated in the observational OCTAVE study, and HSCT and CAR-T patients are invited to participate. Further information can be found at www.birmingham.ac.uk/octave.

If the person named in this letter is under the age of 16, please note that in July 2021 the JCVI recommended that children aged 12-15 at increased risk of serious disease, including those who are immunosuppressed, are offered the Pfizer-BioNTech vaccine. The BSBMTCT recommends vaccination or re-vaccination from 3-6 months post-HSCT and CAR-T for individuals aged <16.

Please see the note overleaf for practical guidance from NHS England on how to arrange and record re-vaccination after transplant.

If you need any further information or guidance please don't hesitate to contact this patient's transplant team using the details below.

Yours sincerely,

Note on re-vaccination in practice

This can be done using any age-appropriate vaccine following JCVI guidelines or as appropriate following specialist opinion on which vaccine maybe more appropriate. Details of repeated doses should be added using the standard point of care software and the record annotated to show that this is an intentional duplication following stem cell transplantation.

Timing of vaccination will be determined by the specialist but would normally be with first dose around 90 days, the second dose following 8 to 12 weeks later, and a third dose 8 weeks after the second. Further doses would follow the national advice at the time. Accelerated second dosing earlier than 8 weeks is not normally indicated.

Payment where relevant to the providing service should follow the re-vaccination, following local protocols and procedures.

Re-vaccination will not impact upon COVID Pass processes, where the individual had already been issued with a pass.

Further reading:

1. Public Health England.

Immunisation of individuals with underlying medical conditions: the green book, chapter 7 (2020).

2. Public Health England.

Immunisation against Infectious Disease; chapter 14a (2021).