**1. AUTOLOGOUS STEM CELL TRANSPLANT & CHIMERIC ANTIGEN RECEPTOR (CAR)-T CELL THERAPY**

**Administer primary vaccination course 3-6 months post transplant/ CAR-T, or when advised by Consultant**

In patients who underwent COVID-19 vaccination prior to transplant or CAR T therapy, there is major concern for loss of immunity. There is also compromised ability post-treatment to produce new antibodies. Therefore, patients should be vaccinated as per primary vaccination course and booster schedule, starting 3-6 months post therapy.

There should be an interval of at least 4 weeks between vaccinations. Patients should receive a third dose at least 8 weeks after the second dose and a booster (fourth) dose at least 3 months after the third dose. Further boosters should be in line with Gov.uk Health Agency recommendations for individuals with a weakened immune system.

Until further data are available, adult autologous stem cell transplant and CAR-T recipients should be given a primary 2-dose vaccination course with ancestral monovalent vaccines as per current practice. A bivalent omicron-containing vaccine should be used as the 3rd dose wherever possible, in order to optimise immune response to omicron-lineage viruses. However, priority should be given to receiving an available vaccine rather than a specific type.

Adults may receive Moderna mRNA (Spikevax) bivalent or Pfizer-BioNTech mRNA (Cominarty) bivalent vaccine.

**2. ANTI-CD20 MONOCLONAL ANTIBODY (Mab) THERAPY**

**Administer booster at 6 months post treatment completion, or when advised by Consultant**

Examples of Anti-CD20 Mabs are: Rituximab, Obinutuzumab and Ofatumumab.

The majority of patients undergoing anti-CD20 Mab therapy will have received full Covid-19 vaccination prior to treatment.\* Such vaccination generates a durable (many months) antibody response, which is not destroyed by anti-CD20 Mab therapy. Vaccine studies do however demonstrate profound and prolonged B-cell depletion post anti-CD20 Mab therapy, resulting in inability to mount a vaccine response within 6 months post-therapy. Patients should therefore be offered a booster at 6 months (no sooner) after *full* completion of anti-CD20 Mab therapy\*\*, followed by boosters in line with Gov.uk Health Agency recommendations for individuals with weakened immune system.

\*If 2-dose primary vaccination was not completed prior to anti-CD20 monoclonal antibody therapy, offer primary course.

\*\* If receiving Rituximab maintenance therapy, delay revaccination until completion of maintenance therapy.

References

1. BSBMTCT-SARS-CoV-2-vaccination-statement\_31Oct2022.pdf

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2. GreenbookCOVID-19 chapter 14a

<https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1141541/Greenbook-chapter-14a-9March2023.pdf>

3. Gov.uk Health security agency recommendations: A guide to COVID-19 spring booster 2023

<https://www.gov.uk/government/publications/covid-19-vaccination-spring-booster-resources/a-guide-to-the-covid-19-spring-booster-2023>