NHS Blood and Transplant

BTS British Transplantation Society

The Voice of Transplantation in the UK

NHS BLOOD AND TRANSPLANT/BRITISH TRANSPLANTATION SOCIETY

UPDATED POSITION SARS-CoV-2 Vaccine Effectiveness and Treatments for COVID-19
1st December 2022

NHS Blood and Transplant (NHSBT) and the British Transplantation Society (BTS) continue to recommend that recipients of solid organ and islet transplants (SOT) take up all offers of NHS approved COVID vaccine doses (including additional booster doses) as the best possible defence against severe illness or death from COVID-19. This is based upon UK registry data showing incremental and good protection following vaccination.

Linkage of four national registries, including UK Transplant Registry, UK Heath Security Agency (UKHSA), National Immunisation Management System (NIMS) and NHS Digital has enabled NHSBT to previously report on vaccine effectiveness (VE) following two doses of SARS-CoV-2 vaccines in SOT recipients. Recently NHSBT has concluded analyses of VE following up to four vaccine doses (paper soon to be submitted for peer reviewed publication). The joint effort with UKHSA compared outcomes (hospitalisation and death) in SOTs of two, three and four vaccine doses against those who had received zero dose. The analyses timeframe includes the Omicron-dominant period of December 2021 to March 2022.

The results show incremental protection for SOT recipients with each successive vaccine dose. Recipients of four vaccine doses demonstrated a VE of approximately 80% against death and 55% against hospitalisation. In those SOT recipients that received four vaccine doses that became infected with SARS-CoV-2, the risk of dying within 28 days was less than 1%; approximately 10% of unvaccinated SOT recipients died if they became infected with SARS-CoV-2.

By November 2022, SOT recipients were amongst groups prioritised for vaccination, with patients being eligible to receive up to six vaccine doses from commencement of the vaccine programme in December 2020. From the currently available data, it is not possible to report whether fifth or sixth vaccine doses provide further protection against Omicron sub-variants.

Department of Health and Social Care (DHSC) has decided not to procure Evusheld™ (Tixagevimab/cilgavimab) as a treatment for COVID-19 due to lack of available evidence.[1] This is reflected in recently published National Institute for Health and Care Excellence (NICE) draft guidance, which only recommends the use of Paxlovid™ (Nirmatrelvir & Ritonavir) for treatment of COVID-19 outside the hospital setting.[2] NICE draft guidance is still under public consultation.

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[1] DHSC Decision on Evusheld as a COVID-19 treatment, 5th September 2022, letter to patient groups: https://www.gov.uk/government/publications/decision-on-evusheld-as-a-coronavirus-covid-19-treatment-letter-to-patient-groups

[2] National Institute for Health and Care Excellence (NICE) Therapeutics for people with COVID-19 https://www.nice.org.uk/news/article/nice-recommends-3-treatments-for-covid-19-in-draft-guidance

Given the significant interaction between Paxlovid™ and routinely prescribed anti-rejection treatments (tacrolimus, ciclosporin and sirolimus), SOT recipients who experience symptoms are strongly encouraged to seek early and expert advice from their transplant team for individual risk-vs-benefit before commencing any course of treatment for COVID-19 outside the hospital setting. We will continue to review the evidence for effectiveness and efficacy of all available preventative and therapeutic treatment options for COVID-19, contribute to open consultations and update recommendations accordingly.