**Answering the call to action: Rapid implementation of an in-centre haemodialysis SARS-CoV-2 vaccination programme.**

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The coronavirus pandemic resulted in devastatingly high rates of infection and mortality( up to 20% and 32% respectively) for in-centre haemodialysis patients(ICHD)(1). The arrival of the SARS-CoV-2 vaccines was anxiously awaited. Large trials reported vaccine efficacy of 62- 95%, (2,3) Data from other vaccines suggested benefit in kidney patients, despite attenuated immune responses(4). Given the devastating toll of COVID, and the kidney community’s call to action(1), we advocated for urgent provision of SARS-CoV-2 vaccines for ICHD patients.

ICHD patients spend significant time on and travelling to dialysis; it is unfair and impractical for them to attend vaccination hubs separate to dialysis. A vaccine delivery group was formed to coordinate procurement, logistics and delivery of SARS-COV 2 vaccines on dialysis. This group was comprised of volunteers (nephrologists, nurses and pharmacists) undertaking this work in addition to their clinical responsibilities. Each vaccinator completed mandatory vaccination e-Learning.

We had permission from the JCVI to vaccinate a cohort of ICHD patients ahead of the government schedule, provided we measured their immune responses. Once a limited number of vaccines were sourced from a community vaccination hub adjacent to a satellite dialysis centre; the vaccine roll-out was piloted. 24 hours later, the vaccination team assembled in the selected satellite dialysis unit and offered all patients attending the morning, afternoon and twilight shifts the vaccine. Crucially patients had already received verbal and written vaccine information. All patients were seen by a pair of vaccinators. Patients were screened for the presence of COVID symptoms, receipt of other vaccines in the preceding 7 days, allergies, use of anticoagulants, pregnancy and previous SARS-CoV-2 vaccination. A concerted effort was made to avoid vaccine wastage The vaccines were administered while the patients were on the dialysis machine. As most patients had anticoagulation on dialysis, pressure was applied to the injection site for 2 minutes and patients were monitored for bleeding. There were no immediate adverse events.

Buoyed by the success of the pilot vaccination day, we extended the programme to the rest of our dialysis population. We care for approximately 1500 patients on ICHD across 9 haemodialysis centres, a vaccine was offered to all patients in these centres. The vaccine type (Pfizer or AstraZeneca), source (local primary care network or hospital trust) and plan for delivery was tailored to suit each centre. Vaccine reconstitution and controlled release was carried out by on-site pharmacists or by trained members of the volunteer group. In one satellite unit, the nurse in charge escorted patients to the adjacent vaccination hub before or after their dialysis session. In the remaining units, the volunteer team carried out vaccinations following the processes detailed above.

Initially, the vaccines used at the in-hospital haemodialysis unit were surplus doses from the staff vaccination hub. When vaccine was available, suitable patients were identified, consented and vaccinated on dialysis. Soon we were allocated vaccine supply. Suitable inpatients were vaccinated with surplus doses.

Two recurrent problems became apparent. Inconsistent vaccine supply and surplus doses. These were intrinsically linked as the lack of advance knowledge about vaccine availability hindered our ability to plan and invite patients for vaccination. In anticipation of surplus doses a reserve list of patients able to travel at short notice was prepared. A third challenge was vaccine hesitancy. Patients expressed concerns pertaining to the speed of vaccine development and conspiracy theories related to 5G and Bill Gates. However, following discussion with trusted members of staff, <5% declined the vaccine when offered it and most were hugely grateful and relieved to receive it.

 Through excellent organisation, communication, perseverance and voluntary teamwork we were able to offer the vaccine to all ~1500 ICHD patients within 16 days of them being included in the vaccine priority schedule.

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