The National Renal Office position on provision of COVID 19 vaccine to patients with End Stage Kidney Disease (ESKD) 09/12/2020

The National Renal Office (NRO) endorses the position taken by other International Nephrology Societies/patient groups regarding the provision of the COVID 19 vaccine for “extremely vulnerable” patients with End Stage Kidney Disease, (patients on renal dialysis, patients waiting to start dialysis and patients who have received a kidney transplant).

The COVID 19 Vaccine Allocation Strategy has set out a provisional priority list of groups for vaccination once a safe and effective vaccine(s) has received authorisation from the European Medicines Agency (EMA). While the NRO supports this approach, it would like to highlight the need to also prioritise vaccination for younger people with severe kidney disease.

In particular, the NRO has advocated that in centre haemodialysis patients (n= 2015) should be considered similar to “People aged 65 and older who are residents of long term care facilities” in terms of prioritisation for the first wave of COVID 19 vaccination as these patients, are extremely medically vulnerable and have a very high mortality risk. Due to their illness, they cannot self-isolate and must attend hospital care facilities for treatment three times per week. Despite strict protocols to minimise infection, such patients remain at risk of inadvertent transmission between patients, and to and from staff. Published data indicates that the case mortality rate in this patient group is similar to that of residents of long-term care facilities averaging between 20 and 25%.

The NRO also supports that the provision of COVID 19 vaccine to frontline healthcare workers includes staff working on behalf of the HSE in HSE contracted satellite dialysis units.

COVID 19 epidemiology in ESKD patients in Ireland

The NRO has collected and collated the incidence of COVID 19 infection in patients with End Stage Kidney Disease on active treatment, i.e. patients on dialysis or living with a functioning kidney transplant.

The total number of such patients who developed COVID 19 infection was 168 as of 4th December. The vast majority of these patients (71%) were on in-centre haemodialysis, 3% on home dialysis therapy and the remainder were renal transplant patients.

The total prevalence rate of COVID 19 infection in patients with ESKD in Ireland appears to be significantly lower than that seen in other countries with a consequently lower overall mortality.

Patients with End Stage Kidney Disease (ESKD), i.e. Dialysis and kidney transplant patients have been identified as being extremely vulnerable to COVID 19 infection as the majority of patients have multiple pre-existing medical conditions. Despite a government introduction of a national lockdown with restrictions regarding social interactions in early March, the number of patients with ESKD developing COVID 19 infection continued to increase by approximately 20 patients per week throughout March and early April.

In light of these infections and associated morbidity and mortality, the National Renal Office issued guidance in mid-April, regarding the universal wearing of surgical masks for dialysis patients and recommended that patients should not eat on dialysis. As the above graph indicates, this was followed by a rapid and sustained decrease in new COVID 19 infections. Indeed from Mid- May
onwards, there was no cases of new COVID 19 infection and the restrictions regarding eating on dialysis were relaxed.

A second wave of COVID 19 infection became apparent in Ireland in September 2020. Unfortunately, new cases of COVID 19 infection in ESKD patients soon became apparent, albeit at a significantly lower rate compared to March. The NRO recommended that the restrictions regarding eating on dialysis should be reinstituted. The rate at which, and the total number of patients acquiring COVID 19 infection during the second phase was much lower than that seen in March.

It is important however to note that the risks of COVID 19 infection in patients with ESKD remains very high, though fortunately the risk of mortality appears to be lower in Wave II. In total, 41 patients have died, 34 patients in Wave I and 7 patients in the Wave II. This translates to an overall 24% case mortality rate, however it is probable that the number of cases documented in wave I is an under estimate. It highlights the extreme vulnerability of patients with ESKD to the effects of COVID 19 infection.

The Irish overall mortality rate for COVID 19 is that 1.5% of haemodialysis patients and 0.3% of renal transplant patients died (the equivalent UK data is that 3% of haemodialysis patients and 1% of renal transplant patients died)

**Impact of COVID 19 on dialysis and transplant activity.**

COVID 19 has had a significant impact on transplant activity as the National Kidney Transplant programme in Beaumont Hospital was paused for three months and has not yet returned to usual activity levels. The total number of patients living with a kidney transplant has remained virtually static throughout 2020. Preliminary data indicates that a number of patients who have had COVID 19 infection have gone on to develop ESKD (most had pre-existing chronic kidney disease). This, coupled with the decreased transplant activity has led to a 6% increase number of patients requiring renal replacement therapy in the form of dialysis.

Additional dialysis stations have been commissioned in a number of HSE contracted satellite dialysis units and this expansion will continue in 2021. It is envisaged that there will be some expansion also in parent renal units over the coming years. The number of patients choosing home dialysis therapy has increased by over 10% and this trend is expected to increase which is in line with Slaintecare.