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| Initial analysis of the impact of COVID-19 infection on patients with advanced chronic kidney disease in the UK |

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Between 26th March and the 14th April the UK Renal Registry (UKRR) received notifications of 1173 positive SARS-CoV-2 swab results from In-centre Haemodialysis (ICHD) patients with clinical symptoms of covid infection. This represents 4.9% percentage of the total ICHD population (estimated from 31-Dec-2018) with significant variation between centres and regions – the latter generally reflecting the underlying general population infection rates between <1% and 15% of patients.

We always suspected that the mortality in patients with ESKD on ICHD would be high, but it is none-the-less sad to report to you that the overall 7 and 14 day mortality for this group of people is 11% and 19% respectively. As with the general population, the absolute risk of dying with covid19 infection is higher in older people. At present we have very few reported cases of symptomatic covid19 infection in children.

The UKRR have performed analyses looking for other factors which might be associated with a greater chance of having covid infection and a higher or lower chance of recovering from the infection. It appears that men and women of Black or South Asian ethnicity have a higher rate of infection compared to those of white ethnicity (with more cases of infection than we would have expected given the proportions in the wider ICHD population). At present there is no statistically significant difference in outcomes in patients receiving ICHD with infection either by level of deprivation or ethnic group.

Data for patients doing home dialysis are harder to interpret. The mortality reported to the UKRR amongst people doing home dialysis is high (The proportion who die following a positive test is approximately 30%).  However, the deaths as a proportion of the total population of home dialysis patients is lower than for the ICHD group. The difference in these measures is likely to reflect a very different swabbing strategy for home based patients, and makes deaths as a proportion of total population a more reliable measure. This is reassuring as it had always been hoped that the concerted efforts on social distancing and shielding for these groups would confer benefits which are much harder to achieve in those attending for in-centre HD.

We are not currently making any comment on the relative impact of covid19 on renal transplant recipients because we are not confident that we have either a complete collection of the swab-results, or the patient deaths as many will not be known the main renal centres. The swab positive infection rate, and the outcomes will become clearer with time when the UKRR data is linked to the PHE covid swab database.

Thank you to all the renal centres who are supplying this data regularly each week, and all the phenomenal efforts you have implemented to maintain a safe and effective service to our patients with kidney disease. The UKRR will continue to produce regular and frequent reports for use by renal services, and in will also make available the results of the overall analyses as they are finalised.

If you require further information to help investigate local concerns or to support service provision please contact [renal@renal.org](https://webmail.nbt.nhs.uk/owa/redir.aspx?C=HnqcjLrQ9Kk5c_45eLvCXu4tqx82g0iODDyRW_mYn-8EVxByqPHXCA..&URL=mailto%3arenal%40renal.org)