



Blood and Transplant

COVID-19 Bulletin Number 6

Organ and Tissue Donation and Transplantation Directorate

8th April 2020

We are continuing regular calls with all UK commissioners in planning Living Donation and Deceased Donation and transplantation, in the context of the pandemic. There are approximately **1500** email addresses on this circulation list, so the reach is reasonable but please encourage colleagues to add their emails, if not already included, to Caroline.Wills@nhsbt.nhs.uk

Dear Colleague

Increasing offers for urgent/super urgent patients

Following on from our regular extended medical team meetings last week, it was agreed that we would relax the **donor exclusion criteria** that we implemented last month, with immediate effect; this is to support sufficient offers to those patients who are super urgent and urgently listed in Liver and Heart/lung transplantation particularly.

The revised donor criteria are outlined below.

Facilitating Organ Donation

- All DBD donors will be considered from 0 years - 75 years of age
- All DCD donors will be considered from 0 years - 50 years of age

Special arrangements have been put in place for the two paediatric renal transplant centres that have been able to remain open regarding the potential donor offers from the youngest patients.

Living Donation – the matching run in July

With the support of the NHSBT medical team, advisory group chairs and commissioners, it has been agreed that the July matching run of the UK Living Kidney Sharing Scheme (UKLKSS) will be suspended. This is in addition to the April matching run, previously notified. If normal activity resumes more quickly than anticipated, the option to schedule a matching run earlier than October will be explored. Any queries or concerns, please contact lisa.burnapp@nhsbt.nhs.uk

Shielding for Vulnerable patients – Mind the gap

In the last Bulletin we reported that previous living kidney donors in Scotland had been advised to shield for 12 weeks in error. This has been investigated by colleagues within Scottish Government and correct information will be sent out to those affected.

In England, the opposite has occurred- a significant number of transplant recipients who expected to receive shielding letters, have yet to do so. A comprehensive data set of transplant recipients was made available by NHSBT to all NHS digital teams, but a different data trawl was carried out in England. Colleagues in NHS England are looking into this so that the list of eligible patients is updated, and letters sent out as soon as possible.

The note below refers to this issue

Message from the CMO's Office

NHS England is aware that clinicians have identified a number of patients/patient groups that they consider should be in the COVID-19 clinically highest risk category. A newly updated set of FAQs have been developed to address these queries.

Once a clinician has identified additional patients to be added to the clinically highest risk registry, they should arrange for them to be sent a copy of the patient letter and they should inform their Trust's named COVID-19 lead. (A copy of the letter accompanies this bulletin)

NHS Digital will be in touch with every Trust COVID-19 lead about the on-going process for transferring this information to the central registry. This is in operation and Trusts can send information back to NHS Digital between 8am and 5pm via the existing Secure File Transfer System daily. NHS digital is then able to update the central registry. Please note, that NHS Digital can only accept one submission from each Trust per day.

Please note that patients are being added to the central database/registry all the time and there may be a slight delay between a patient being added to that database and being recognised by the website/ support phone line as someone who is eligible for support.

Retrieval teams

We have been working very closely with retrieval teams to monitor capacity, and in order to facilitate the teams remaining in a state of readiness. I am grateful to Ian Currie, Marius Berman, Karen Quinn and all her team and also to all the UK retrieval team members who have worked very hard to keep the service running at this incredibly difficult time. All donors are precious, but at this time that sentiment is truer than ever, so the maintenance of a geographically comprehensive retrieval team is also important.

Registry data

Thank you very much to so many who have filled in data on those who have contracted Covid-19

.....either whilst on the waiting list or post-transplant.

Please continue to register patients (Lisa Mumford and the team have made it easy to do this) and we will then be keen for follow up data thereafter.

The link to the website is below

As of 07/04/20 we had 121 post-transplant cases, the majority kidney patients.

Of those, median age was 45 and 64% male.

Transplants performed in:

2020: 7

2019: 18

2018: 11

2017: 7

2016: 4

2015 and before: 74

Clearly, as has been pointed out to me the incident groups (early post-transplant and later post-transplant) are very different in numbers and we need to take this into account in the data above.

We are working with the Renal Registry in developing this registry further.

We are grateful to colleagues in NHS England and National Services Division Scotland in supporting us to gain linkage of this registry to other major databases; we are also working with Ines Ushiro-Lumb to see whether similar linkages could be made with PHE data.

In that way, the data will be more complete. This will, in turn help with our understanding of the virus in the immunocompromised and pave the way for a more detailed study, perhaps in a subset of patients.

<https://www.arcgis.com/home/webmap/viewer.html?webmap=8721e647799940a8ac447c53cc1eb889&extent=-16.4563,49.9633,10.3943,57.2178>

International Colleagues and their data/reactions

Many thanks to Dale Gardiner who has drawn up this short document, summarising the thoughts and data from colleagues in other countries, dealing with the virus in the context of donation and transplantation. The information is presented as Appendix 1, below

Organ Allocation and Offering

LIVER

Two weeks ago, we changed the Liver allocation scheme, which seems to be working well. It is hoped the relaxed donor criteria will provide more liver offers to super urgent and urgent patients

RENAL

Renal changes implemented last week; again, appear to be working well. At the time of writing, there are 4 renal centres open and 2 paediatric renal centres who are taking offers. Those centres that remain open are considering an urgent group of patients only.

Even though we have relaxed the donor criteria we will ensure that kidneys are offered as outlined below:

- DBD kidneys from 5 years to 75 years and
- DCD kidneys from 5 years to 50 years

CARDIAC

Cardiac changes implemented are also working well. We will continue to monitor over the coming days.

We ask that if any centre closes or requires changes to acceptance criteria to notify NHSBT formally, via the Clinical governance team – clinicalgovernance.odt@nhsbt.nhs.uk

This will enable us to make the changes required and inform the individuals who require to know internally.

Deceased Donor Transplantation – Update

We have been asked for information on the transplant activity round the UK. Our stats team are now providing regular updates on the link below. It may be a day or two behind so we can provide accurate transplant numbers.

<https://nhsbtdbe.blob.core.windows.net/umbraco-assets-corp/18222/daily-numbers-080420.pdf>

This week we have published the list of transplant centres by organ group that are opened and closed. The detail can be found on the link below.

<https://www.odt.nhs.uk/deceased-donation/covid-19-advice-for-clinicians/transplant-centre-closures-and-restrictions/>

Deceased donor kidney transplantation

We are grateful to centres that have taken the time to suspend the patients they do not wish to receive offers for. This is very helpful in expediting offering times for the HUB staff
We will continue to review the situation and provide updates.

Lung Transplantation

No change from previous Bulletin.

Heart Transplantation

No change from previous Bulletin.

Liver Transplantation

All units remain open to either highly urgent or super urgent cases with a case by case study for each donor offer.

Pancreas and Islet cell Transplants

Pancreas

All UK solid organ pancreas transplant centres have now closed.

Islet Cells

These programmes have largely been suspended except for second transplant patients - there is still one priority patient listed in the United Kingdom, and one laboratory for isolation remains open.

Tissue Donation

We continue to have sufficient supply of corneas.

We are continuing to see cancellations for corneal transplant surgery

Publications/Useful Links

For information only – Clinical Trials document available [here](#)

All information about policies concerning COVID 19 etc in the Eurotransplant countries is published here : <https://www.eurotransplant.org/2020/03/31/covid-19-and-organ-donation/>

BTS/Centre of Evidence for Transplantation have collaborated to provide an open access repository of emerging evidence for solid organ donation and transplantation, which is held within the Transplant Library, available [here](#)

NHS England in relation to COVID-19 and those NHS staff who are self-isolating can be found [here](#)

SaBTO guidance with a new Annex on COVID-19 [here](#)

New NICE guidance on:

COVID-19 Haematopoietic stem cell transplantation [here](#)

COVID-19 rapid guideline: critical care in adults [here](#)

COVID-19 rapid guideline: dialysis service delivery [here](#)

Updated articles on organ transplantation

1. Ju C, Li N, Qiu T, Xue W, Shi B. Clinical characteristics of novel coronavirus pneumonia in organ transplant recipients and management strategy during the epidemic (1st edition). Organ Transplantation 2020;11(2):185-nullJournal Article.
2. Gandolfini I, Delsante M, Fiaccadori E, Zaza G, Manenti L, Degli Antoni A, et al. COVID-19 in Kidney Transplant Recipients. American Journal of Transplantation 2020;n/a(n/a):10.1111/ajt.15891
3. Guidelines for organ donation and transplantation in China during novel coronavirus pneumonia epidemic. Organ Transplantation 2020;11(2):179-nullJournal Article
4. Chen C-Y, Chen SF, Hollander SA, Rosenthal D, Maeda K, Burgart A, et al. Donor Heart Selection During The COVID-19 Pandemic: A Case Study. The Journal of Heart and Lung Transplantation 2020:https://doi.org/10.1016/j.healun.2020.03.018
5. Woolley AE, Mehra MR. Dilemma of Organ Donation in Transplantation and The COVID-19 Pandemic. The Journal of Heart and Lung Transplantation 2020:https://doi.org/10.1016/j.healun.2020.03.017
6. Seminari E, Colaneri M, Sambo M, Gallazzi I, Di Matteo A, Silvia R, et al. SARS Cov2 infection in a renal transplanted patients. A case report. Am J Transplant 2020:10.1111/ajt.15902
7. Huang J, Lin H, Wu Y, Fang Y, Kumar R, Chen G, et al. COVID-19 in post-transplantation patients-report of two cases. Am J Transplant 2020:10.1111/ajt.15896
8. Cardoso FS. Liver transplantation in an ICU dominated by COVID-19. Liver Transpl 2020:10.1002/lt.25770

9. Bin L, Yangzhong W, Yuanyuan Z, Huibo S, Fanjun Z, Zhishui C. Successful Treatment of Severe COVID-19 Pneumonia in a Liver Transplant Recipient. *Am J Transplant* 2020;10.1111/ajt.15901
10. Angelico R, Trapani S, Manzia TM, Lombardini L, Tisone G, Cardillo M. The COVID-19 outbreak in Italy: initial implications for organ transplantation programs. *Am J Transplant* 2020;10.1111/ajt.15904
11. Zhang H, Chen Y, Yuan Q, Xia Q-X, Zeng X-P, Peng J-T, et al. Identification of Kidney Transplant Recipients with Coronavirus Disease 2019. *Eur Urol* 2020;<https://doi.org/10.1016/j.eururo.2020.03.030>
12. Ju CR, Lian QY, Zhang JH, Qiu T, Cai ZT, Jiang WY, et al. Recommended prophylactic and management strategies for severe acute respiratory syndrome coronavirus 2 infection in transplant recipients. *Chronic Diseases and Translational Medicine* 2020;10.1016/j.cdtm.2020.02.003

Reference on organ transplantation

1. Qin J, Wang H, Qin X, et al. Perioperative Presentation of COVID-19 Disease in a Liver Transplant Recipient. *Hepatology* 2020 doi: 10.1002/hep.31257

The Systematic Review Initiative has started searching the WHO COVID database and MEdRix for pre-peer review manuscripts on topics relevant to NHSBT. Here are the current articles related to organ transplantation. They are case reports and reviews

1. Aslam S, Mehra MR. COVID-19: Yet Another Coronavirus Challenge in Transplantation. *The Journal of Heart and Lung Transplantation* 2020 doi: <https://doi.org/10.1016/j.healun.2020.03.007>
2. D'Antiga L. Coronaviruses and immunosuppressed patients. The facts during the third epidemic. *Liver transplantation : official publication of the American Association for the Study of Liver Diseases and the International Liver Transplantation Society* 2020 doi: 10.1002/lt.25756
3. Guillen E, Pineiro GJ, Revuelta I, et al. Case report of COVID-19 in a kidney transplant recipient: Does immunosuppression alter the clinical presentation? *American Journal of Transplantation : Official Journal of the American Society of Transplantation and the American Society of Transplant Surgeons* 2020 doi: 10.1111/ajt.15874
4. Lu X, Ming C, Wen Z, et al. Clinical analysis of 2019 coronavirus disease (COVID-19) on one case with living-related kidney transplantation. *Chinese Journal of Organ Transplantation* 2020;41(0):E006-E06.
5. Pan L, Zeng J, Yang H. Challenges and countermeasures for organ donation during the SARS-CoV-2 epidemic: the experience of Sichuan Provincial People's Hospital. *Intensive Care Medicine* 2020 doi: 10.1007/s00134-020-05978-8
6. Qiu T, Wang J, Zhou J, et al. The report of two cases infection with novel coronavirus (2019-ncov) after kidney transplantation and the association literature analyzation. *Chinese Journal of Organ Transplantation* 2020;41(0):E004-E04.

7. Tu Y, Wu X, Liu F, et al. Two clinical cases of Novel coronavirus pneumonia (NCP) in renal transplant recipients. *Chinese Journal of Organ Transplantation* 2020;41(0):E005-E05.

The Transplantation Society (TTS) and our journal Transplantation have developed online resources to keep you informed on the Coronavirus (COVID-19) outbreak.

- TTS Coronavirus (COVID-19) Dashboard
www.tts.org/covid-19
- Transplantation Global Transplantation COVID Report
www.tts.org/txicovid19

We are also requesting contributions and news from the transplant community to be sent to covid-19@tts.org for inclusion on our resources page.

Appendix 1
Notes from the International Meeting
01/04/2020

International Update from Donation and Transplant Leaders following a weekly international Zoom meeting organised by Canadian Blood Service. (Last updated 1st April 2020)

This is shared to give context to the UK situation but should in no way be regarded as official from each respective country. The situation in each country remains fluid.

In order of COVID-19 impact

Italy

- There has been a significant drop in deceased organ donors, but centres are still recovering organs.
- All organ donors are screened with BAL. If BAL is not possible, a bronchial aspirate may be appropriate, so long as it is a deep sample to avoid it being a superficial sample and false negatives.
- It is becoming impossible to differentiate COVID-19 positive ICUs from COVID-19 negative ICUs or establish COVID-19 free ICUs.
- To date, there are 153 transplant recipients with COVID-19; 12% mortality rate which is a slightly higher mortality rate than general population. Currently, there is not a uniform approach for treating recipients with COVID-19.
- Advice to other countries to reduce the spread of COVID-19 in hospitals – every patient should be considered potentially infected.

Spain

- Donation and transplant numbers have decreased dramatically since State of Alarm issued on Mar. 13. From Jan. 1 – Mar. 12, the mean number of donors per day was 7.2; transplants were 16.1 per day. Since Mar. 13 these have dropped to 2.8 transplants per day and 1.7 donors per day.
- Proceeding with less than 5% of potential donors being referred due to COVID-19 positive tests, or the hospital being unable to proceed.
- National recommendation not to cancel donation and transplant, but to continue a case by case basis, considering the resources available and ability to keep transplant recipients safe. Urgent status and pediatric cases are most likely to proceed.
- Living donation is suspended, and most centres have also suspended tissue donation.

- Recommendation continues to be PCR testing of upper respiratory tract for donors; will not proceed if positive test.
- Local recoveries are being promoted. Most health care professionals have been instructed not to travel outside of their centre. As such, flexibility is being applied to allocation in order to utilize the organs available.
- Centralized data collection for recipients with COVID-19; 80 cases reported to date. Of these, 64 cases have been analyzed: 10 patients acquired the infection in hospital, none were donor derived. Average time from transplant to COVID-19 infection is 6.6 months, therefore infection has not been linked to transplant procedure. There have been 7 deaths, a mortality rate of 11%, similar to Italy.
- At 8pm daily, there is national applause for health care workers; this has led to a feeling of unification in the country and recognizes the efforts of the health care system.
- Advice to other countries to reduce the spread of COVID-19 in hospitals – where possible, designate a hospital/facility for treatment of those not affected with COVID-19 and send all confirmed and suspected COVID-19 patients to other facilities.

USA

- Living donation mostly suspended.
- Organ donation organizations are self reporting that they continue to have the same level of deceased organ referral and donation activity.
- Heart and lungs still happening in some areas of the country.
- Kidneys are being recovered at a lower rate; also experiencing a higher discard rate (30%) as programs are only accepting optimal organs.
- DCD continues at the same rate.
- Tissue donation is decreasing. Tissue banks are not receiving the same number of requests for tissue, therefore reducing the number of recoveries.
- All potential donors are being tested; access to testing is getting better using BAL, endotracheal aspirate, and nasal swabs. A new 5-minute test is being developed for use with a nasal swab. This will be very useful when fully validated and made more widely available.
- There are reports of transplant recipients with COVID-19; likely community spread, not as a result of transplant procedure.
- The frequency of transplant programs only performing local retrievals and transferring the organs is increasing.

Canada

- Still in the early stages of the infection; peak expected in the coming weeks.
- Living donation suspended.
- Deceased kidney donation proceeding on a case by case basis for medically urgent patients only. Non-renal organ donation is also proceeding on a case by case basis.
- Testing for both donors and recipients continues.

Australia

- Still early days; expect to be impacted more seriously in the coming weeks.
- Living donation remains suspended.
- Deceased kidney donation is suspended.

- Non-renal donation and transplant continues a case by case basis; only local referrals (within the state) continue.
- Only 7 transplants reported over the last 7 days.
- Very little eye donation, but some tissue donation continues.
- Enhanced PPE (with N95 masks) is required for confirmed or suspected COVID-19 cases.

