

Tissue Donation Update March 2021

Deceased Tissue Donation

The COVID-19 pandemic has had a significant impact on deceased tissue donation in this financial year (2020/21). The impact has been multifaceted, in particular the increased and sustained pressure on NHS Scotland at large, which has meant that potential donor referral rates have significantly dropped to approximately 50% of the pre-COVID-19 referral rates. Ensuring safety of both staff carrying out the retrieval process and also the safety of the donations also added further pressures, requiring new ways of working to protect the staff at all times and adding in new testing requirements to ensure the safety of the donations. Despite the increased death rate in Scotland during the pandemic, fewer potential donors would be identified as being suitable for tissue donation due to the added risk posed by the high prevalence of SARS-CoV-2 in the population at large.

However, despite all the above it is to the credit of our colleagues in the various hospitals who continued to refer donors and to the Tissue Donor Co-ordinators, the Specialist Nurses for Organ Donation and the Tissue Retrieval Staff that in the first 11 months of this financial year, up to the end of February 2021, a total of **33 tissue donors** were progressed, donating **53 heart valves** and **48 tendons**. Of these 33 donors, 20 donated tissue after organ donation and 13 were tissue only donors.

SNBTS also took on the responsibility of eye retrieval from deceased donors in the central belt of Scotland as of October 2020. Since then **18 eye retrievals** have been carried out by SNBTS retrieval staff and a further 17 potential eye only donors were referred to NRC.

As a direct impact of the pandemic the Tissue Donor Co-ordinators are not currently permitted to visit the donating hospitals on a regular basis, however they have continued to work in the background, keeping in touch with hospitals remotely by email and other IT means to keep awareness of tissue donation ongoing while acknowledging that colleagues in hospitals had many competing priorities during the pandemic.

SNBTS has also been heavily engaged with NHSBT and Scottish Government colleagues in training internal and external clinical staff in the new Deemed Authorisation legislation which is anticipated to go live as of 26th March 2021. SNBTS is currently in a state of readiness for the new legislation.

Pancreatic Islet Programme

The SNBTS Islet Isolation Lab continued to process pancreata for clinical transplantation throughout the pandemic and was the only UK lab able to continue to provide an uninterrupted service. However similar to other types of deceased donation the pandemic has had a significant impact on the number of transplants being taken forward due to a variety of reasons, including being able to identify suitable donors during a pandemic and concerns re the safety of recipients (due to the need for immunosuppression) with increasing COVID-19 cases.

In the first 11 months of the 2020/21 financial year (up to end of February 2021), 15 pancreata were processed by SNBTS of which 8 (53%) yielded a successful transplantable product by SNBTS release criteria, leading to a transplant on 6 occasions.

Live Bone Tissue Donation

NHS Scotland also has a clinical demand for the use of donated bone. Potential bone donors are identified from patients undergoing primary hip replacement, where the femoral head is being removed and replaced, but can be donated instead of being discarded to allow treatment of other patients e.g. patients with scoliosis or patients with fracture non-union.

In the past bone donation has been sufficient to meet clinical demand. The COVID-19 pandemic has however had a significant (and ongoing) negative impact on the ability to progress bone donation. This is partly due to the pandemic having led to elective orthopaedic surgery being suspended in all hospitals for extended periods of time during 2020; further, despite elective orthopaedic surgery having restarted in a number of hospitals, most have restarted at a much slower rate compared to pre-pandemic rates of orthopaedic surgery due to the ongoing pressures on NHS Scotland. Also, many patients needing primary hip replacement have had their surgery delayed significantly and may now have advanced orthopaedic complications such that their femoral head is no longer suitable for donation, and indeed they may end up being bone users themselves instead. As a result, there has been a very significant drop in the rate of bone donation while bone usage has relatively increased despite the relatively low rate of orthopaedic elective operations going ahead just now.

In the calendar year 2020 the rate of bone donation vs usage is demonstrated in the table below with a clear impact of the pandemic from March onwards with a total of 365 femoral heads being donated but 400 being used clinically:

	Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jun 20	July 20	Aug 20	Sep 20	Oct 20	Nov 20	Dec 20	Total
Donated	59	51	24	0	0	4	31	32	53	38	37	36	365
Used	39	58	33	8	11	25	27	46	40	39	31	43	400

The clinical demand for bone is much higher than the possible donation rate at the present time, in particular when 2020 is compared to the previous 2 calendar years with 615 bones being donated in 2019 and 565 in 2018.

Dr Sharon Zahra and Mr Neil Healy
 Clinical Lead and Lead Nurse, TCAT, SNBTS
 3rd March 2021