

1. The effectiveness of the current model for organ and tissue donation in Western Australia.

While the Western Australian model does well in comparison to other jurisdictions it does not meet demand and does not enable all potential bone and tissue donors or next of kin the opportunity to have informed conversations about donation at a time when donation is an imminent possibility.

With improvement Western Australia could be self-sufficient with bone and tissue donation activity meeting demand for bone and tissue allograft. Presently a significant volume of bone and tissue allograft used in Western Australia is imported from international sources such as the United States by for profit commercial operators. The National Eye and Tissue Sector Framework 2022 is calling for self-sufficiency and a move away from reliance on imported tissue. Potential avenues to achieve self-sufficiency are presented below within the response to the issues impacting organ and tissue donation rates.

The current levels of collaboration, separation and specialisation of roles within the organ and tissue donation model are both appropriate and operate well together in context of the complex systems of Healthcare, Police and Coronial services operating collectively to support organ and tissue donation as a secondary objective. Over time, constraints or other pressure on the activities of Healthcare, Police and Coronial services have diminished the capacity to support realisation of cadaveric bone and tissue donation.

In contrast the resourcing of DonateLife WA personnel in Hospitals has been instrumental in slowing the decline in cadaveric donation numbers by introducing additional avenues to appropriately identify and realise bone and tissue donors. The introduction of the donation after cardiac death (DCD) donation pathway could not have been achieved without the work of these donation champions. PlusLife is extremely grateful for the support of the Western Australian DonateLife team. Looking forward this team will be instrumental in assisting with the development of a donation pathway for those individuals who are accessing Voluntary Assisted Dying support and who also wish to become organ and tissue donors and are medically suitable.

The living donation program has been steadily growing although impacted by Covid-19. PlusLife and Western Australia achieves the highest level of living donation as a percentage of primary hip replacement surgeries of all Australian jurisdictions at 46%. The national average is 26%. In Western Australia improvements in the referral of potential living donors could improve the number of donations by as much as 700 per annum.

The inquiry's scope does not appear to extend to implantation/transplantation effectiveness. Therefore the high level of performance achieved in Western Australia in this area compared with other Australian jurisdictions has not been provided within this response. It is available upon request.

2. Issues impacting organ and tissue donation rates in Western Australia.

Cadaveric Donation

- Notification of Death

The timeframe for completion and lodging of a P98 form by Police notifying of a death has increased.

For clinical safety and regulatory reasons, it is imperative that bone and tissue is retrieved within 24 hours of the time the donor was last seen alive. This leaves little time to collect information to determine medical suitability, approach the family for consent and mobilise a retrieval team and perform the retrieval of bone and tissue from the donor.

Delays in the lodgement of a P98 form dramatically reduce the likelihood of successful bone and tissue donation. Presently the median time between certification of life extinct and lodgement of the P98 form is 10.9 hours. The lodgement of a P98 commences the investigation by DonateLife WA to determine medical suitability of the potential donor.

The number of referrals and successful donation events occurring within the coronial system has been in decline. This has been offset to some extent by increases in donation events occurring within hospital settings. Some causes of death such as motor vehicle accident are no longer represented in the donations sourced through the coronial system due to the time elapsed prior to submission of the P98.

- Post Mortems

The Coroner can only order an internal post mortem examination if they reasonably believe it is necessary for an investigation of a death. There is no coronial function that allows the conduct of a post mortem for a purpose other than the investigation of death.

The State Coroner has aligned its processes with the Law Reform Commission of Western Australia – Review of Coronial Practice in Western Australia Final Report recommendation 101. For cases that appear non-contentious, if data can be provided by a limited examination for coronial purpose then the least-invasive procedure should be considered. In practice this has seen an increasing use of external post mortem examinations supported by the use of a CT scanner.

PlusLife requires an internal post mortem examination to remove the risk of undetected potentially transmissible occult diseases being present in the donor at the time of death. These diseases cannot be detected by external examination and the use of a CT scanner.

As a consequence of the increasing trend towards external post mortem examinations the pool of otherwise potential bone and tissue donors has decreased.

Presently the Coroner does not have the legislative and procedural discretion to support bone and tissue donation through choice of post mortem method. In a handful of situations each year this results in an inability to proceed with cadaveric bone and tissue donations or loss of otherwise viable graft when a decision on post mortem method occurs after the retrieval of bone and tissue. In these situations there is a clear support for donation to proceed from the next of kin and or the recently deceased expressing a wish to donate on the Australian Organ Donor Register.

- Temporary Resource Shortages

The DonateLife WA team is resourced to provide screening for organ and tissue donors. Occasional peaks in activity demands that focus is given to organ donation. This can result in potential tissue only donors within the coronial system not being reviewed because DonateLife WA resources are not available for this activity. The DonateLife WA team and the organ and tissue donation resourcing model are not able to flex with peak demand events. This is a constraint on the capacity to realise all potential tissue donations each year. The number of potential missed donations arising from this is unknown.

Each year PlusLife will decline up to 2 potential donors because the requirement for the presence of a medical officer to perform the retrieval of bone and tissue from the donor cannot be met. This temporary resource shortage is usually a result of conflicting priorities preventing a medical officer attending to within the required 24 hour period. The recent amendments to the Human Tissue and Transplant Act 1982 to include provision for an authorised person other than a medical practitioner to remove skin or musculoskeletal tissue from a deceased person have addressed this issue for the future.

Living Donation

- Referral Rate

PlusLife works with surgeons, surgeon's rooms, pre-admission clinics and hospitals to facilitate referrals of patients who require primary hip replacement surgery and are interested in donating. Upon receiving a referral Pluslife works with the patient and the patient's healthcare providers to screen them as potential donors. For a patient to be a living donor they must consent to screening, be clear of medical conditions that preclude donation for transplantation and finally consent to donating the femoral head removed during the primary hip replacement surgery. Medical exclusion and other factors preclude approximately 70% of all referred patients from being able to donate. Increasing the number of patients referred is key to increase the number of successful donations.

Presently approximately 47% of patients undergoing primary hip replacement surgery are referred for screening each year in Western Australia. This excludes approximately 53% of patients from having informed conversations about becoming a living human tissue donor as part of their patient journey. It also limits the number of donations after screening that can be realised in Western Australia. PlusLife believes it is possible to dramatically increase living donation activity in Western Australia by as many as 700 per annum with improvements to the referral rate.

- Rescheduling or Late Notice Confirmation of Surgery

Each month PlusLife is unable to realise an average of 5 donations from potential donors in the late stages of the screening and consenting process because the timeframes for confirmation of surgery is too short. The potential donor is unable to complete the final procedural steps required for the donation to occur as part of their primary hip replacement surgery in the limited time available after becoming aware of the time and day of their surgery.

3. Opportunities to improve organ and tissue donation rates in Western Australia.

Living Donation

- Improve the levels of education and awareness within healthcare personnel and within the general community regarding living bone and tissue donation.
- Feedback from WA public hospitals is that they do not have the staffing levels to facilitate referring patients to PlusLife for living donations. Automating the referral of patients on the waitlist for primary hip replacement surgery to PlusLife to discuss living donation would dramatically improve living donation opportunities in Western Australia.
- Introducing a minimum period of notice for scheduling of hip replacement surgery at short notice would provide Western Australians time to complete the final remaining steps to facilitate donation of the femoral head that is being replaced.

Cadaveric Donation

- Improve the levels of education and awareness within healthcare personnel and within the general community regarding bone and tissue donation after death.
- Separation of roles within the Cadaveric space is very effective. However, from time to time the resourcing levels prevent screening of potential eye and tissue donors. Providing PlusLife and the Lions Eye Bank with the capacity to provide screening support to assist DonateLife WA during the very occasional peak organ donation periods would enable screening to continue. The alternative would be to increase DonateLife WA resourcing to enable capacity to flex upwards to accommodate periods of peak demand.
- Provide the Coroner with greater discretionary powers to support organ and tissue donation. The Victorian legislative model is a useful example when considering how this could be achieved.
- Reintroduce minimum target times for Police to lodge a P98 following certification of life extinct. This would reduce the median time to lodgement and improve the likelihood of achieving a successful cadaveric donation event within the coronial system. This could be targeted to only apply to certain preceding events that led to certification of life extinct to not unnecessarily burden Police services.
- Presently in Western Australia there is no donation option within the voluntary assisted dying pathway for individuals who also wish to be an organ and tissue donor after their voluntary assisted death. Adding the option of donation within this pathway will increase the pool of potential donors and support consenting Western Australians to donate organs and tissue after death.



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Public Administration Committee
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Re: Inquiry into organ and tissue donation

Thank you for the opportunity to make a submission to the inquiry on organ and tissue donation in Western Australia.

To provide some background for this submission it is important to describe PlusLife. PlusLife is Western Australia's only bone and tissue bank and one of a small number of tissue banks in Australia.

At PlusLife, we screen, collect, process, store and distribute donated human bone and tissue allografts. We pride ourselves on exclusively retrieving 100% Australian donated bone and tissue to produce the highest quality allografts in our facility located in Midland, Western Australia.

As a Therapeutic Goods Administration licensed tissue bank, we are committed to providing medical professionals with safe and effective allografts for use in surgical procedures to treat patients with conditions such as spinal deformities, arthritic joint disease, bone cancers, sports injuries; and facial and dental reconstructive surgeries.

We exist to enhance Australian lives through the precious gift of human bone and tissue donation. We are a not-for-profit service delivering on our commitment which is centred around the needs of each recipient, supported by uncompromising respect for every donation.

PlusLife has two donor programs, a living program and a cadaveric program.

In the living donation program patients having a hip replacement surgery can donate the ball part of their hip (femoral head), which is produced into allograft for implantation. In 2022 PlusLife screened and discussed donation with 2650 patients. These patients were undergoing primary hip replacement surgery and were referred to PlusLife. In 2022 PlusLife retrieved 792 whole femoral heads from donors as part of the living donation program.

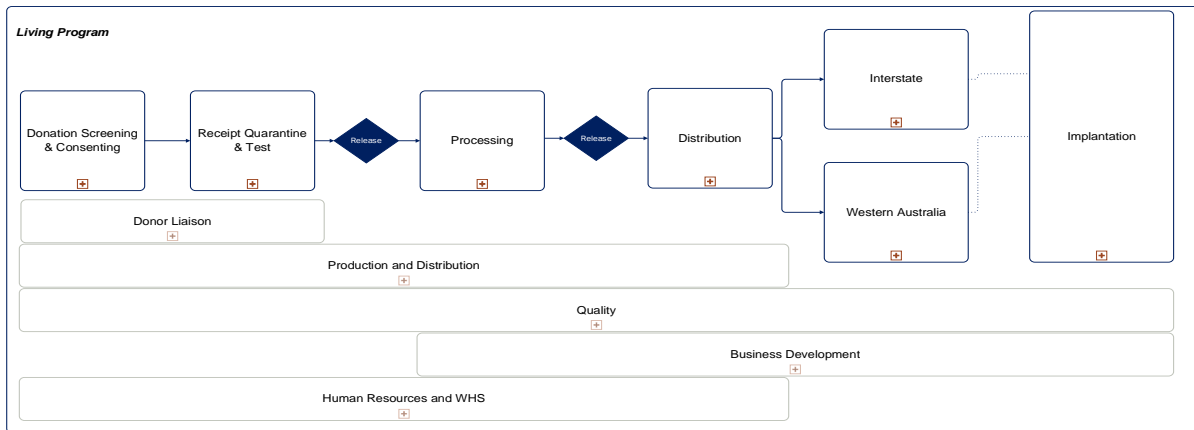


Fig 1 - Living Donation Process Flow

Like organ donation, bone, tendons and ligaments can also be donated after death with consent from the deceased’s next-of-kin. The cadaveric program screening service is conducted by a 3rd party DonateLife which is part of the WA public health system. DonateLife receive notifications of death from the coronial system and private and public health systems. Applying PlusLife’s screening criteria they determine donor suitability prior to referring potential donors to PlusLife and Lions Eye Bank. DonateLife also manages the consenting process on behalf of the tissue banks. The cadaveric program is the only source of tendons and large structural allograft and includes tissue only donors from the coronial system and multi-organ and tissue donors from health system.

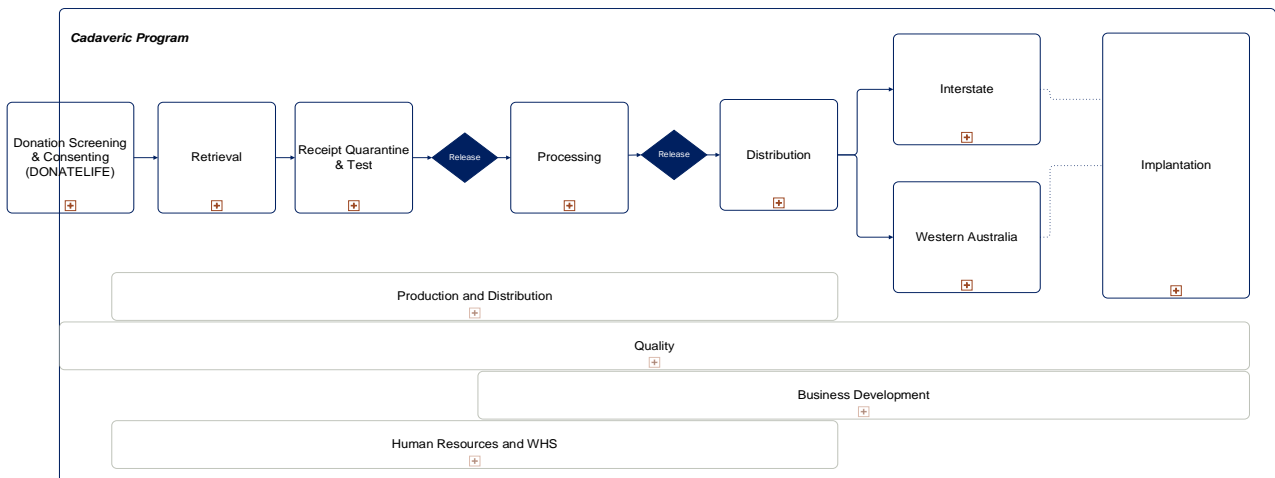


Fig 2 - Cadaveric Program Process Flow

Approximately 4000 eligible potential donors are screened each year by DonateLife who refer approximately 75 to PlusLife. This translates to between 10 and 20 actual bone and tissue donors each year. In 2022 PlusLife received 72 referrals from DonateLife. This enabled PlusLife to retrieve bone and tissue from 12 donors. The gift of bone and tissue donation is used for patients undergoing life-transforming operations and in many cases, it has saved people with cancer the distress of a limb amputation.

Since it was established in 1992, PlusLife has created 32,000 individual allografts from over 16,000 donors. Almost 24,000 allografts have been implanted to help 14,717 patients, including children with bone cancer and spinal deformities. Last year 988 patients received 1642 life-changing bone and tissue allografts produced by PlusLife.

To provide this valuable service to the community PlusLife works within a network of services. These services work together to ensure the wishes of the donors and their next-of-kin are respected and the safety and quality of the donated tissue is of the highest standard.

This network comprises of:

- DonateLife WA
- Lions Eye Bank
- Coroner/State Mortuary/Police
- Public Hospitals
- Private Hospitals
- General Practitioners
- PathWest, Western Diagnostics and other Pathology Clinics
- Specialist Clinics
- National Research Laboratories (NRL)
- Surgeons
- Interstate Musculoskeletal Tissue Banks
- Courier Services

In context of the above background PlusLife provides the appended response to the request for submissions. Pluslife is supportive of the inquiry and can be contacted for further information and clarification to assist the committee with its deliberations.

Yours sincerely

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