

ARTICLE

The expansion of OrganMatch to meet the needs of the Australian donation and transplant sector

Narelle Watson • *National OrganMatch Manager, Transplantation and Immunogenetics Service, Australian Red Cross Lifeblood, Australia*
Email enquiries@donatelife.gov.au

Benjamin Meyer • *Business Analyst, Organ and Tissue Authority, Australia*

Amanda Nicol • *Assistant Director, Clinical Programs, Organ and Tissue Authority, Australia*

Keywords Transplantation, OrganMatch, tissue typing

For referencing Watson N et al. The expansion of OrganMatch to meet the needs of the Australian donation and transplant sector. *Transplant Journal of Australasia* 2021; 30(3):15-17.

DOI <https://doi.org/10.33235/tja.30.3.15-17>

Background

OrganMatch is Australia's state of the art organ matching system launched in April 2019. OrganMatch is funded by the Australian government, hosted by the Australian Red Cross Lifeblood (Lifeblood) and designed and built in Australia by Datacom using a web-based software platform. The initial launch of OrganMatch in April 2019 focused on replacing the previous organ matching system and providing enhanced functionality to streamline tissue typing laboratory processes. In August 2019, the OrganMatch transplantation portal was released. The transplantation portal provides transplant and clinical units real-time access to patient clinical reports issued by laboratories such as human leucocyte antigen (HLA) antibody reports, transplant and match event reports (including donor-specific antibody [DSA] assessments), crossmatch results and histocompatibility assessments.

Building on the success of OrganMatch, the Organ and Tissue Authority (OTA) and Lifeblood commenced the OrganMatch enhancement project in 2021 to provide a streamlined, efficient and secure method of communication for the donation and transplantation sector in order to reduce some of the current administration burden experienced by DonateLife, transplant units and tissue typing laboratories. The project is occurring in two phases with the concurrent development of a donation portal and expansion of the transplantation portal.

OrganMatch enhancement project: phase 1 Transplantation portal

Expansion of the OrganMatch transplantation portal will enable transplant units to enrol and manage their own transplant waitlist patients directly in OrganMatch (Figure 1). This will reduce manual processes for both transplant units and the tissue typing laboratories and allow real-time updates in the system, reducing timeframes for patients to be

waitlisted. Enhanced secure data capture of patient clinical information relevant to the organ transplant program has also been included. The first stage of implementation will be the Australian and New Zealand Paired Kidney Exchange (ANZKX) program which will transition the current process of capturing data in two systems (MMEX and OrganMatch) to exclusively use OrganMatch to directly manage enrolments, matching and offer management by early 2022.

Recipient and potential donor matches are also now visible in the transplantation portal. These are published as part of the tissue typing process by laboratories when issuing organ offer lists to DonateLife and can be viewed as part of the offer process or patient reviews. Transplant units will be able to see the matches that have been conducted for their patients on the transplant wait list.

Donation portal

Phase 1 of the OrganMatch enhancement project also includes the development of a new donation portal which, for the first time, will provide DonateLife agencies with secure user-based access to the OrganMatch system (Figure 1). The donation portal is being developed to support donation specialist coordinators in managing the donation process and will facilitate the organ offer processes through a secure information sharing platform between the tissue typing laboratories, DonateLife and transplant units. Within Phase 1, DonateLife agencies will be able to view donor enrolments in their jurisdiction through the donation portal, including being able to see the match event history, as well as being able to view the organ offer list within the donation portal. This will see a more efficient process than currently experienced which involves tissue typing laboratories emailing this information to DonateLife agencies.

In addition, an application program interface (API) will be established between the existing electronic donor record

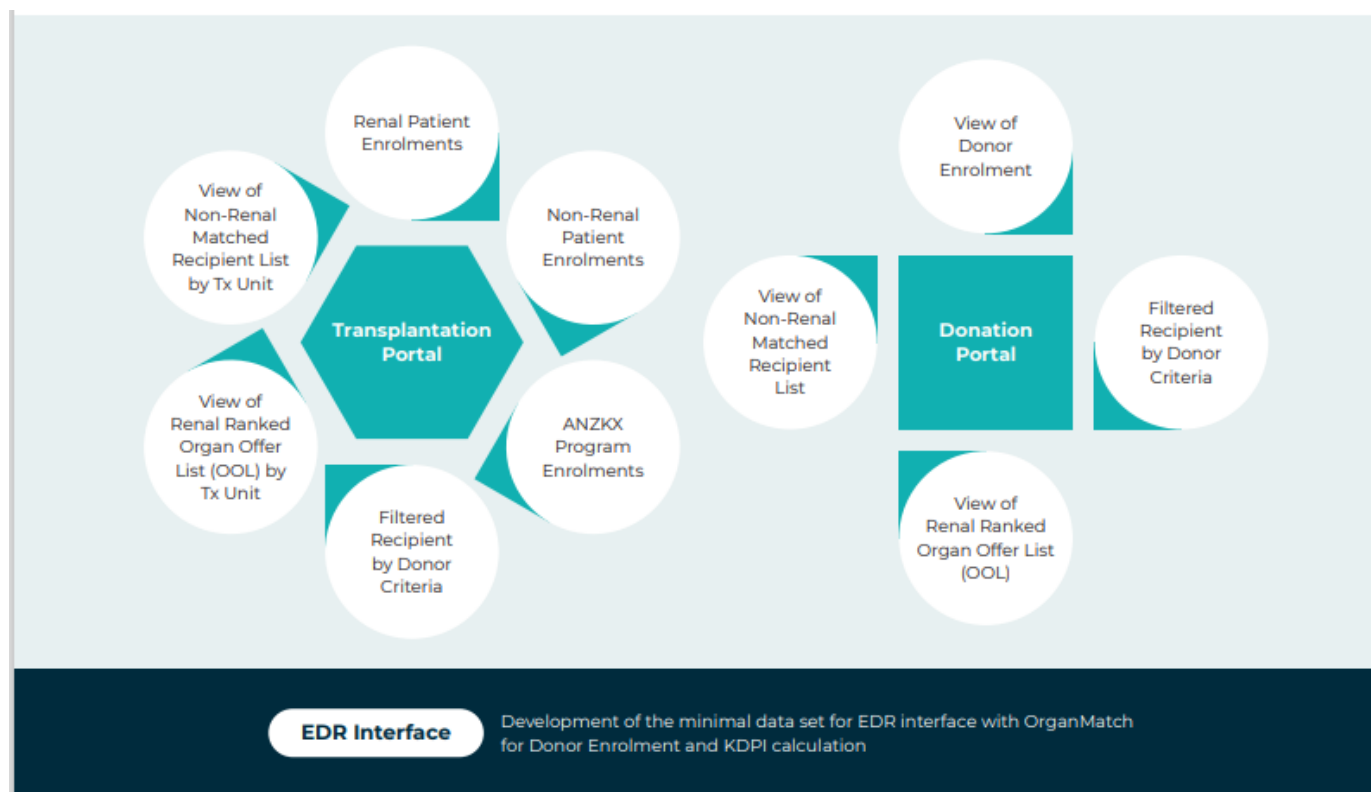


Figure 1. OrganMatch enhancement project deliverables Phase 1

(EDR) system and OrganMatch which will enable a real-time transfer of data from the EDR to OrganMatch. Within Phase 1, the interface will automate the donor enrolment within OrganMatch, as well as the calculation of the Kidney Donor Profile Index (KDPI). This is expected to greatly reduce the amount of manual processing required by both the DonateLife agencies and the tissue typing laboratories.

Stakeholder consultation

Clinical engagement and input have been a crucial element of the project so that OrganMatch enhancements are developed to meet the needs of each organ transplant group. Stakeholder consultation has included organ-specific clinical workshops and has involved working with the Transplantation Society of Australia and New Zealand (TSANZ) organ advisory committees, DonateLife agencies and national tissue typing laboratories. In addition, each Australian transplant unit was offered the opportunity to provide a nominee to become OrganMatch experts in their unit when the implementation phase occurs in 2022. This provides a unique opportunity for a nurse or doctor to be involved in a national project.

The implementation of Phase 1 of the OrganMatch enhancement project will involve a national virtual roadshow where state-based group training sessions will be provided to all OrganMatch users. These recorded sessions and supporting guides and documentation will be available on the OrganMatch website to access when suitable for users; however, we encourage participation in the live training as it will an opportunity for direct contact with the OrganMatch

team and any questions or feedback can be provided. Phase 1 implementation commenced on 16 November with the ANZKX program implementation of the enhancements to the transplantation portal.

OrganMatch enhancement project: phase 2

Phase 2 of the OrganMatch enhancements will focus on streamlining the allocation and acceptance of organs in real-time and will allow for transplant units and DonateLife to communicate securely through the donation and transplantation portals (Figure 2). This will further streamline processes that are often time-limited and conducted out of business hours.

Additionally, Phase 2 will continue to build on the API between the EDR and OrganMatch. This includes facilitating the secure sharing of the EDR donor chart between DonateLife and transplant units when making organ offers. Currently the donor chart is provided to transplant units as a large PDF document which can be difficult to navigate. The electronic provision of the donor chart through the API will provide the full donor chart with the ability for transplant units to tailor donor clinical information by organ group. All clinical data that is currently provided to transplant units by DonateLife will still be included; however, it will be much easier to navigate and can be tailored to meet clinician or transplant unit needs. This allows for multiple opportunities for streamlining the offer processes to reduce current timeframes and administrative burdens.

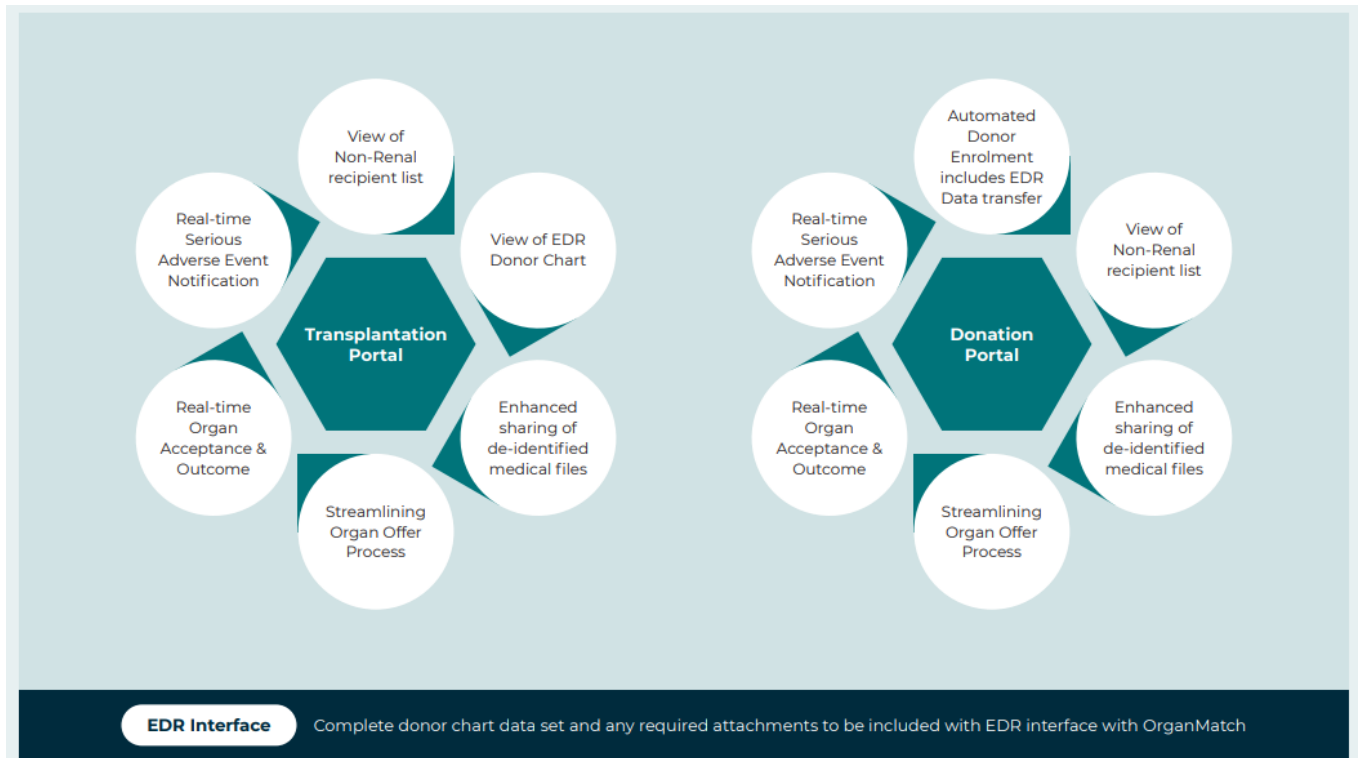


Figure 2. OrganMatch enhancement project deliverables Phase 2

Serious or adverse event notifications will be able to be made directly through OrganMatch by transplant units and/or DonateLife if an event arises that requires communication to other transplant units to assess potential risks for recipients. This will assist in the timeliness of these notifications to enable immediate consideration of potential broader risks. In addition, the sharing of de-identified medical files will be further explored and enhanced to reduce administrative burdens where possible. Implementation of Phase 2 of the OrganMatch enhancement project will commence from mid-2022 and include further consultation to obtain clinical input.

Summary

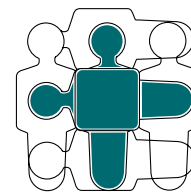
The OrganMatch enhancement project is an example of government, health organisations and the private sector collaborating effectively together to build a digital health system that meets the unique needs of the Australian organ donation and transplantation sector. Further information on OrganMatch and the enhancement project can be found [here](#).

Conflict of interest

The authors declare no conflicts of interest.

Funding

The authors received no funding for this study.



Don't forget that **1st round scholarship applications are now open**. Please consider applying for assistance for registration for an upcoming conference or get in for the TNA National Conference in Melbourne in October!

1st Round Scholarship application deadline: Friday 11th February 2022

Scholarships can provide assistance to attend both interstate and international conferences (including virtual meeting registration). If you are planning to present or attend a conference take this opportunity to go to the website: <https://transplantnurses.org.au/scholarships/> to review guidelines for scholarship and application process. Applications that do not meet the eligibility criteria will not be considered.

Why not apply for assistance to attend the TNA National Conference in Melbourne in October 2022, or better still get planning to submit an abstract for a paper presentation!