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Introduction

Sydney Local Health District (SLHD) is committed to being an Australian leader in organ donation to support the world leading transplantation services that are provided by Royal Prince Alfred Hospital (RPA). Yet it is clear that significant progress will need to be made to achieve this goal.

Access to organ donation for transplantation is essential to ensure the best outcomes are achieved for people with end stage disease such as kidney, liver, heart, lung or pancreas failure or for people receiving tissue donation (bone, corneas or skin) to improve the quality of their lives. It has long been recognised that Australia's organ donation for transplantation system does not meet the nation's present demand for organ transplantation and is unlikely to meet its future needs without significant change. This is especially so given that the demand for transplanted organs is anticipated to continue to grow with the ageing of Australia's population and the increased incidence of lifestyle diseases such as obesity, Type 2 diabetes, Hepatitis C, cancer and pancreatitis.

Waiting list numbers for organ transplantation have not changed significantly over the past decade. A majority of those patients on organ transplant waiting lists are awaiting kidney transplants, with livers and lungs the next most frequent organs in demand.

A wide range of data on organ donation for transplantation in Australia, including rates of donation, characteristics of organ donors and rates and outcomes of organ transplantation, are collected and made available. Although significant progress has been made in NSW in partnership with the Commonwealth to reform and improve organ donation across Australia, the rate of organ and tissue donation in NSW at 14.2 dpmp is still lower in comparison to other states in Australia and other countries. Data indicate that the overall number of

organ donors in Australia has increased significantly over the past 5 years, with some variation evident between jurisdictions. The median rate of donors per million people (dpmp) for Australia has grown from 12.1 dpmp in 2008 to 16.9 dpmp in 2013. South Australia has consistently out-performed the other states, with a median rate of 20 dpmp while Spain has a dpmp of 34, almost twice the Australian rate.

Data on the percentage of people who were potential organ donors would benefit from testing through an external audit to identify any international differences in the potential donor pool.

Spain currently has the highest rate of organ donation in the world. There are a number of factors that contribute to this; of importance is the national approach taken by Spain to organ donation. As a result, many other countries have drawn on aspects of Spain's organ donation for transplantation sector in an attempt to improve their own rates. Australia and NSW have implemented some elements of the Spanish system. Elements of the Spanish system that have been emulated by other countries include the National coordination of all aspects of the organ procurement and transplantation system, dedicated organ donation coordinators and transplant teams within hospitals, and presumed consent legislation.

In Spain, the Organizacion Nacional de Trasplantes (or National Organisation for Transplants-ONT) coordinates organ donation for transplantation activities. This agency maintains waiting lists specifically for emergency tranplants, registries, compiles statistics and operates training programs for medical professionals. Within each hospital, specific organ transplant units operate on-call under the direction of designated organ transplant coordinators, all hospitals in Spain have intensivists full/part-time dedicated to organ donation. Coordinators,

mostly ICU clinicians, work within an intensive care unit and are responsible for detection of possible donors, support for the diagnosis of death, donor maintenance, donor and organ evaluation, providing information and counselling to families, and for the organ retrieval process. Regional coordination centres monitor activities in all hospitals. Coordination teams work independently from the surgeons who are involved in the process of transplantation; however, all activities are coordinated between both teams.

The Spanish National health system comprises all facilities and public services devoted to health, with public health care available for almost the entire population.

Organ transplantation has a specific budget allocation which funds:

- The organ procurement network
- The salaries of coordinators and retrieval teams whilst involved in transplantation activities
- Any tests to determine donor suitability
- ICU bed costs
- Training and education programs.

The reimbursement by National and Regional authorities of hospital costs related to the transplantation process is seen as being of key importance in sustaining the involvement of all hospitals in the organ donation process.



Organ Transplantation at RPA

RPA has the only liver transplant unit and the largest kidney transplant unit in NSW. RPA and SLHD are part of the NSW and national effort to improve organ donation for transplantation. Over many years, RPA clinicians have played an active role at a state and national level in the development of strategies to support best practice in organ donation for transplantation, for example, the Director of RPA's Intensive Care Unit has been seconded to a leadership role in NSW as the State Medical Director of the NSW Organ and Tissue Donation Service (OTDS) 'DonateLife NSW'. The Clinical Director for Gastroenterology and Liver is president of the Transplantation Society of Australia and New Zealand. RPA's clinicians are also actively involved in the State organ retrieval service.

RPA is an international leader in liver and kidney transplantation. It has been a pioneer in the fields of kidney and liver transplantation since 1967. RPA performed its first deceased kidney transplant in 1967, first living donor transplant in 1973 and performed the first liver transplant in NSW in



1986. In 2005, the hospital performed the first liver, kidney and pancreas transplant in Australia. In 2012/13, RPA undertook 71 liver transplants and 81 kidney transplants. RPA works closely with other transplantation units at Westmead (kidney and pancreas), Prince of Wales (kidney), and St Vincents (heart and lung) and is a key member of DonateLife.

It is logical, therefore, that SLHD, (in particular RPA), continues to take a leading role in the development of systems that maximise the potential organ donor pool in NSW.

It is important to note that the donation rate in NSW has risen significantly over the last few years and that Dr Robert Herkes and the team at the NSW Organ and Tissue Donation Service and the Australian Government Organ and Tissue Authority (AOTA) should be supported and congratulated for this outcome. This has resulted in a significant increase in the number of both kidney and liver transplants performed by RPA's transplantation units over the last 12 months.

RPA is one of the premier teaching hospitals in Australia and is the most complex tertiary and quaternary health facility in NSW. It has one of the largest ICUs in Australia (over 50 beds). Its emergency, intensive care, pathology and diagnostic services make it well placed to support organ donation for transplantation.

In 2012, the NSW Minister for Health launched the Increasing Organ Donation in NSW Government Plan at Royal Prince Alfred Hospital. This plan laid out the strategic direction for organ donation in NSW emphasising the importance of the partnership between NSW and the Commonwealth and the need for new initiatives in addition to strengthening existing commonwealth strategies.

Enhancing Organ Donation at RPA

In 2013, SLHD recognised that its organ donation Request, Consent and Actual Donor rates at RPA were not increasing at the rate being achieved by some other hospitals in NSW. A SLHD Organ and Tissue Donation Steering Committee was established chaired by the Director of Operations of the District with membership including the specialist organ donation medical clinicians, the Director of Critical Care, the Clinical Director Gastroenterology and Liver, ICU clinicians, the General Manager RPA. Representatives of ShareLife provided advice to the Committee.

Dr John Gatward, Organ Donation Specialist prepared a paper on the Process of Organ Donation at RPA which was reviewed by the SLHD Organ and Tissue Donation Steering Committee. The paper identified potential areas for improvement. As Spain is frequently cited as a world leader in organ donation, the Committee undertook a literature review on the Spanish organ donation system and compared this to current practice in NSW and in particular RPA. As a consequence a subsequent paper was then developed 'The RPA in Spain Concept'. Following this the Committee recommended to the Chief Executive that it would be beneficial to send a team consisting of a manager and two organ donation specialists to Spain to examine their systems and processes first hand. This was supported by both the Chief Executive and the SLHD Board.

Through contacts with ShareLife Australia, SLHD arranged for the team to visit Spain in October 2013. On their return, the team prepared a comprehensive paper analysing differences between the health systems in NSW and Spain and identifying opportunities for enhancing our organ donation for transplantation systems and processes consistent with world best practice.

Following receipt of the above papers, a small working party consisting of Dr Teresa Anderson, Chief Executive SLHD, Ms Deborah Willcox, Director

of Operations, Professor Paul Torzillo, Clinical Director of Critical Care, Professor Geoff McCaughan, Clinical Director of Gastroenterology and Liver, and Dr Maria Gomez, CE Outcomes Australia (the parent body to ShareLife) was established to develop an implementation plan to enhance organ donation for transplantation at RPA aimed at assisting RPA in becoming a National leader in organ donation for transplantation.

In developing the strategies within the SLHD Organ Donation for Transplantation Plan, consultations have also occurred with Dr Robert Herkes, former State Medical Director of the NSW Organ and Tissue Donation Service, Dr Josette Eris, Director of the State-wide Renal Service, and Professor Richard Allen, Professor of Transplantation RPA. Following review by the Board of SLHD further consultation will be undertaken with senior clinicians across RPA and the District to ensure support for the strategies by the broader clinical community.

Despite the excellent work that has been undertaken to date to support organ donation for transplantation at RPA, the working party found that the rates of organ donation are below what is considered world leading practice. Data provided by the NSW Organ and Tissue Donation Service on Request, Consent and Actual donor rates across NSW show that in 2013, RPA's rates were significantly lower than many of its peers (refer to Diagrams 1-6). Of note is the excellent performance of Royal North Shore. Analysis by the NSW Organ and Tissue Donation Service of the difference between RPA and Royal North Shore suggests that this may be in part explained by significantly different demographics, socioeconomics including the higher CALD population in RPA indicating that specific strategies to increase connections with donor families from CALD backgrounds will be required.

Diagram 1: NSW Organ and Tissue Donation Service Request Rates 2013 (RPA vs. NSW hospitals)

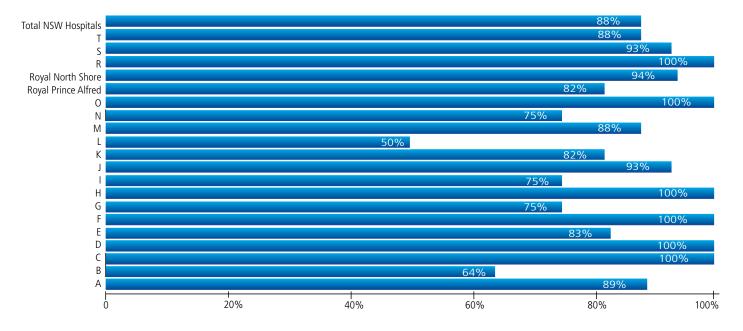


Diagram 2: NSW Organ and Tissue Donation Service Request Rates (RPA vs. NSW peers)

2013 NSW Group A Hospitals - Requests vs Non-Requests (brain death)

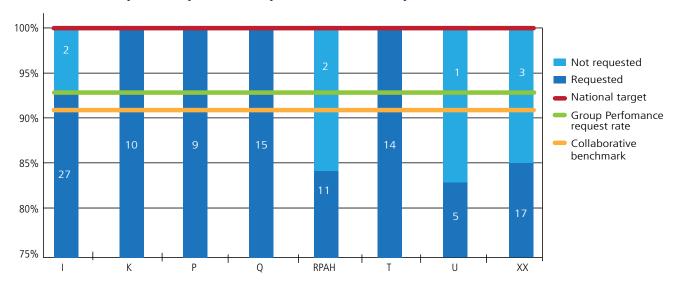


Diagram 3: NSW Organ and Tissue Donation Service Consent Rates (RPA vs. NSW hospitals)

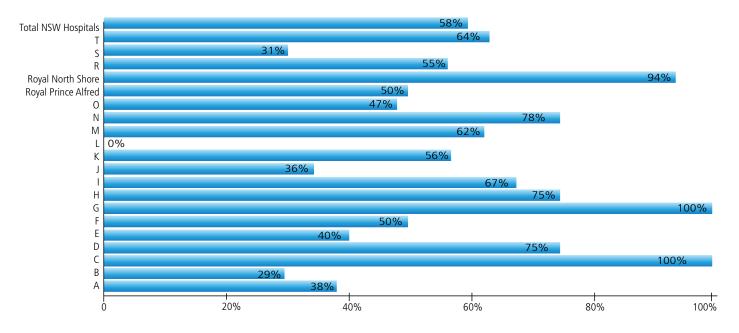


Diagram 4: NSW Organ and Tissue Donation Service Consent Rates (RPA vs. NSW peers)



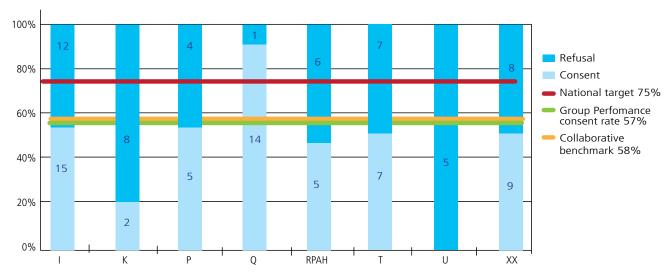


Diagram 5: NSW Organ and Tissue Donation Service Donation Rates (RPA vs. NSW hospitals)

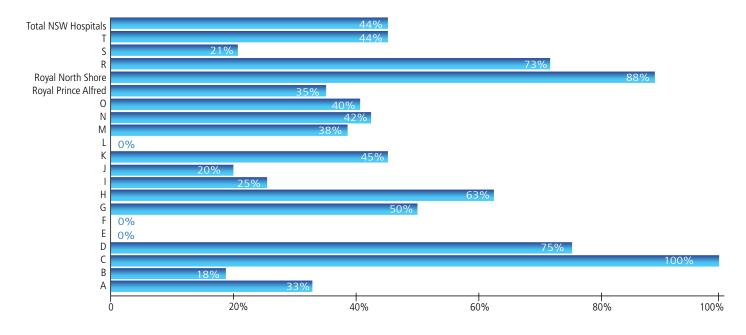
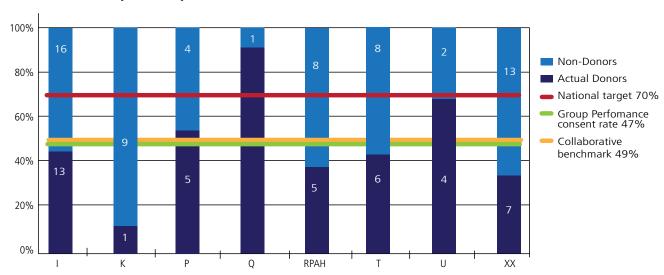


Diagram 6: NSW Organ and Tissue Donation Service Donation Rates (RPA vs. NSW peers)

2013 NSW Group A Hospitals - Actual Donors vs Non-Donors (brain death)



In identifying world leading practice in Organ Donation for Transplantation, the working party utilised a number of resources including the Good Practice Guidelines in the process of Organ Donation (Spanish National Transplant Organisation 2010), the Organ Donation European Quality System (2013) and Increasing Organ Donation in NSW 2012.

Leading practice in the Organ Donation for Transplantation process was identified in the areas of:

- System governance and infrastructure
- Hospital education activities
- Communication strategies
- Audit and Quality Improvement
- Detection
- Brain death diagnosis
- Donor viability
- Donor maintenance

- Organ viability
- Family approach
- Organ recovery
- Organ allocation
- Transplantation
- Organ transplant feedback
- Donor family follow-up.

The working party then documented the current status at RPA against each of these areas. The review indicated that although there are areas where RPA currently has world leading practice, there are other areas where action is required for RPA practice to be at this level. The SLHD Organ Donation for Transplantation Plan is outlined in Table 2 and identifies the actions required, the positions responsible, the time frame, indicative costs and Key Performance Indicators.



In identifying the strategies outlined in the SLHD Organ Donation for Transplantation Plan, the working party considered both the strengths of RPA and the challenges faced in providing world leading organ donation for transplantation. These are outlined below:

Strengths

- Highly skilled medical, nursing and allied health staff who are committed to organ donation for transplantation
- Extensive experience in organ donation for transplantation
- Tertiary and quaternary clinical support services including ICU, ED pathology, diagnostic imaging services
- Strong relationships and networks with the OTDS and other District organ donation for transplantation services.
- An Executive and Board that are committed to improving organ donation for transplantation.



Challenges

- Lack of a strong district governance structure for organ donation for transplantation
- Lack of a dedicated 'Organ Donation for Transplantation Unit'
- The temporary nature of specialist organ donation medical positions resulting in difficulty retaining senior clinicians.
- The fragility of 24/7 coverage to support after hours organ donation
- Limited reporting to the District Executive and Board on organ donation outcomes
- Limited auditing against best practice.

Strategies

There are a number of key strategies in the SLHD Organ Donation for Transplantation Plan that the District believes will help to strengthen organ donation for transplantation at RPA and support the state and national efforts to improve organ donation.

These include:

- The establishment of a dedicated Organ
 Donation for Transplantation Unit at RPA.

 Staff of the unit will play an active role in the hospital and promote a Whole of Hospital approach to organ donation for transplantation.
- The appointment of a Director of the Organ Donation for Transplantation Unit at RPA who will report to the Chief Executive of SLHD through the Executive Clinical Director of RPA. This new position, in partnership with the University of Sydney, will be a clinical academic who will provide leadership in the development of best practice organ donation within RPA. The Director will work

- closely to support the work of DonateLife and the NSW Organ and Tissue Donation Service through teaching and research and the development of evidenced based practice in organ donation. The Director will be an intensivist and can have the opportunity to undertake clinical practice in the RPA ICU as part of the role; however, the dominant role will be as the Director of the Organ Donation for Transplantation at RPA.
- The re-establishment of the Organ Donation for Transplantation Steering Committee chaired by the Chief Executive with membership including the Director of the Organ Donation for Transplantation Unit, the Clinical Director Critical Care, the Clinical Director Gastroenterology and Liver, the Director of ICU, the Director of the Emergency Department, the Head of Departments for Neurology, Neurosurgery and Palliative Care, the Organ Donation Nurse, the Director of the State-wide Renal Service, Professor of Transplantation Surgery, Chief Executive, Outcomes Australia and the General Manager RPA. This committee will provide strategic direction and support to the Organ Donation for Transplantation Unit at RPA and facilitate a Whole of Hospital approach to organ donation for transplantation.
- An increase in the staffing within the team to provide **24/7 coverage** through the retention of the organ donation specialist positions funded through the NSW Organ and Tissue Donation Service. These positions will continue to be under the current arrangements with the NSW Ministry of Health to enable the development of a pool of clinicians with expertise in organ donation and support succession planning.
- The appointment of an administration officer to support the work of the team including data collection, development of educational resources and audit.

- The Organ Donation for Transplantation Unit will work closely with all departments within the hospital to support a Whole of Hospital approach to organ donation, including staff within the Emergency Department, Intensive Care Unit, cardiology, neurology, pathology, imaging, transplantation units and administrative areas.
- Review of the education that is currently
 provided in line with world leading practice. The
 Organ Donation for Transplantation Unit will work
 closely with the NSW Organ and Tissue Donation
 Service and the NSW Ministry of Health.
- Review RPA/SLHD practices for identifying potential donors and our practices for obtaining consent. The Organ Donation for Transplantation Unit will work with ED and ICU staff to review current practices.
- Review, with NSW Ministry of Health, the resources required to increase the number of transplants performed at RPA and in NSW and review opportunities for the development of new kidney transplantation services. At present the liver and kidney transplant units at RPA are at capacity. If there is a significant increase in kidney and liver donations, the capacity to undertake organ transplantations will need to increase at all NSW hospitals undertaking transplantation. Negotiations will need to occur in setting the District's activity targets.
- Review the National Weighted Activity Units (NWAUs) for organ donation for transplantation. Currently the NWAUs for liver, kidney, pancreas, heart and lung transplants do not cover the full costs of performing these complex procedures. Further work is required with NSW Ministry of Health and the Commonwealth to appropriately cost and fund these procedures.

Conclusion

The District believes that the strategies contained in the SLHD Organ Donation for Transplantation Plan will enhance its ability to be an Australian leader in organ donation to support the world leading transplantation services that are provided by Royal Prince Alfred Hospital. The additional resources contained in the plan will also be available to assist the NSW Organ and Tissue Donation Service and Australia in achieving its goal of NSW and Australia being world leaders in organ donation.

RPA and SLHD are committed to a Whole of Hospital approach to organ donation for transplantation. Improving donation rates relies heavily on the support of ICU and ED doctors so that they can identify potential donors and gain consent from their relatives. To support this, the working party will meet with ICU and ED clinicians to discuss the SLHD Organ Donation for Transplantation Plan and the importance of their roles in its implementation.

SLHD services a population of approximately 580,000 people. If SLHD were to achieve the same organ donation rates as Spain (35 dpmp), it would have approximately 18 donors per year across its hospitals. SLHD has had approximately 6 donors per year for the last 3 years.

The District has also set proposed trajectories for improving its rates of Request, Consents and Actual Donors over the next three years. These are outlined in Table 1 and Diagram 7. The District aims to perform above the National targets in all areas.

Although the District recognises that the targets it has set itself are ambitious, the working party believes that they are achievable with the implementation of the District's Organ Donation for Transplantation Plan.

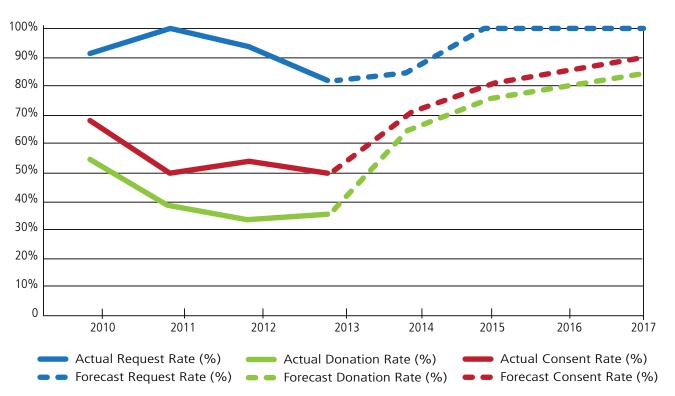


Table 1: RPA Organ Donation Trajectory for Request, Consent and Actual Donor Rates

Royal Prince Alfred Hospital Organ Donation Trajectory

Year	Actual Request Rate (%)	Forecast Request Rate (%)	Actual Consent rate (%)	Forecast Consent rate (%)	Actual Donation Rate (%)	Forecast Donation Rate (%)
2010	92		67		54	
2011	100		50		38	
2012	94		53		33	
2013	82	82	50	50	35	35
2014		85		70		65
2015		100		80		75
2016		100		85		80
2017		100		90		85

Diagram 7: RPA Organ Donation Trajectory for Request, Consent and Actual Donor Rates



Appendix

Organ Donation for Transplantation Process	Leading Practice	Current Status at RPA	Actions required	Positions Responsible	Time frame	Indicative cost	KPľs
	The hospital has a dedicated Organ Donation for Transplantation Unit reporting to the Chief Executive	RPA has Organ donation staff who report to the clinical stream director and General Manager	Change the reporting structure of the Organ Donation for Transplantation Unit to the Chief Executive through Executive Clinical Director	Chief Executive	Immediately	Ï	Organ Donation for Transplantation Unit organisational chart outlines reporting structure to Chief Executive
	Staffing within the Organ Donation for Transplantation Unit includes dedicated medical and nursing staff	RPA has dedicated 2 organ donation nursing staff and 3 part-time temporary medical officers due to the nature of the funding source They are on the ICU roster for the other part of their positions.	Appointment of a permanent FTE Clinical Academic in Organ Donation for Transplantation. Appointment of Staff Specialist. 05 FTE Administration Officer — to include Data Collection. SOD developed for each position.	Chief Executive	June 2014	\$300,000	Appointment of (and SOD for): • FTE Clinical Academic • Staff Specialist • 5 FTE Administration Officer.
	Staff within the Organ and Transplantation team have ICU backgrounds	The medical organ donation specialists all have ICU backgrounds	No change required				
System governance and infrastructure	Members of the donor team are available 24/7	Currently members of the donor team are on-call 24/7	Review of the clinical academic rosters and staffing to ensure availability of members of the organ and transplantation team are available 24/7	Executive Clinical Director Organ Donation for Transplantation Unit	March 2014. Review in 6 months		Organ Donation for Transplantation Unit has a resourced 24/7 on-call team
	The hospital has specialised units in neurosurgery, neurology, cardiology	RPA is a quaternary and tertiary hospital with level 6 neurosurgery, neurology, cardiovascular services	No change required				
	A Trans-cranial Doppler is available for blood flow tests as required	Available in Neuro OPD at RPA and OPD at CRGH	Protocols to be developed	Organ Donation for Transplantation Unit			Development of protocols for Trans-cranial Doppler for blood-flow tests
	A tertiary pathology Iaboratory is available 24 hours a day, 365 days per year	RPA is a quaternary and tertiary hospital with level 6 pathology available 24 hours per day	No change required				
	The hospital has a dedicated quiet family room to allow private conversation and grief responses	RPA has two dedicated consultation family rooms and a third room which contains lounges	Minor renovations in consultation with community to make the room more supportive and welcoming – tea & coffee facilities, TV, lounge	GM RPA/ Director of Engineering	\$15,000		Waiting room renovations completed as per stated requirements

Organ Donation for Transplantation Process	Leading Practice	Current Status at RPA	Actions required	Positions Responsible	Time frame	Indicative cost	KPI's
System governance and infrastructure	Protocols and procedures for all relevant steps of the donation process are in place	Current Practice; however they could be enhanced	Review of protocols and procedures to be undertaken. Regular audit program to be implemented to monitor compliance	Organ Donation for Transplantation Unit, ICU, ED Staff, Staff			Review of protocols and procedures conducted. Regular audit program in place to monitor compliance
	Training of professionals in/outside ICU and ED on organ donation is undertaken, donor detection	Undertaken but limited	Requires enhancement	Staff from the Organ Donation for Transplantation Unit			Organ Donation training programs for professionals in/outside ICU and ED reviewed and enhanced
Hospital Education Activities	Specific and continuing education in organ donation for transplantation is provided to all key staff throughout the hospital including to staff in administrative areas	Undertaken but limited	Requires enhancement	Staff from the Organ Donation for Transplantation Unit. Organ & Tissue NSW Donation and Transplantation Service			Specific and continuing education in organ donation for transplantation provided to all key staff throughout the hospital including administrative staff
	The Organ Donation for Transplantation Service has close relationships with all hospital services	Undertaken but limited	Requires enhancement	Staff from the Organ Donation for Transplantation Unit			Relationships strengthened between Organ Donation for Transplantation Unit and other hospital services
Communication Strategy	Inform all stakeholders of progress of the Organ Donation for Transplantation Unit and outcomes of donation rates	Undertaken but limited	Develop brochures for staff and patients/families Include research and progress of new Organ Donation for Transplantation Unit	GM RPAH/ Staff from Strategic Relations & Communication Unit			Brochures developed for staff and patients/family detailing research and progress of new Organ Donation for Transplantation Unit
Audit and Quality Improvement	Documentation occurs in the clinical record of key points in the donation process including documentation of the cause of no donation	An audit system is currently in place; however could be enhanced with regular performance reports to the Chief Executive and Board (including benchmarking against KPIs)	Review and enhance the current audit system Development of a Dashboard to monitor performance	Staff from the Organ Donation for Transplantation Unit Director of the Performance Unit ED and ICU staff NSW Organ and Tissue			Current audit system reviewed and enhanced Dashboard developed to monitor and report performance against KPIs

Organ Donation for Transplantation Process	Leading Practice	Current Status at RPA	Actions required	Positions Responsible	Time	Indicative cost	KPI's
	All patients with severe neurological injury who require or may require ventilation are identified as early as possible (Possible Donors)	Current practice; however requires ongoing audit	Enhanced audit	ED and ICU staff			Number of comatose patients with devastating cerebral lesion admitted to the ICU who are referred to the Donation Team/Number of comatose patients with devastating cerebral lesion admitted to the ICU X 100
	All possible donors detected and all cardiac death are notified immediately to the Organ Donation for Transplant Coordinator)	Current practice	No change required	ED and ICU staff Organ Donation for Transplantation Unit			
Detection	Periodic visits are made by the Organ Donation for Transplantation team to the units that manage neuro-critical patients outside of the ICU and ED	Doesn't occur at this stage	Develop protocol	Staff from the Organ Donation for Transplantation Unit			Number of possible deceased DBD referred to the donation team/ Total number of possible deceased DBD x 100 TARGET 100%
	All possible donors cases that have been detected or referred by the ICU and ED staff are monitored by staff of the Organ Donation for Transplantation Unit on a daily basis	Doesn't occur at this stage	Develop protocol	Staff from the Organ Donation for Transplantation Unit			Protocol developed for daily monitoring of all detected and referred possible donor cases
	A system is in place to identify and record all possible donors who become potential organ donors	GIVE trigger has been implemented in the ICU to allow early notification of potential donors	Expansion to the ED and other parts of the hospital. Develop protocol. Provide education.	Staff from the Organ Donation for Transplantation Unit			Expansion of GIVE trigger system to Whole of Hospital Protocol and education plan developed

Organ Donation for Transplantation Process	Leading Practice	Current Status at RPA	Actions required	Positions Responsible	Time	Indicative cost	KPI's
	Brain death is declared as soon as it happens	Current practice	No change required	ICU/ED/ Neurosurgery staff			
Brain Death	All Brain Death Declaration occurs independent of whether the person is suitable or not for organ donation	Current practice	No change required	ICU/ED/ Neurosurgery staff			
200 200 200 200 200 200 200 200 200 200	The Organ Donation for Transplantation Unit has a permanent presence of skilled clinicians who are able to diagnose brain death	The diagnosis of brain death is undertaken by 'designated specialists' As a rule these are intensive care clinicians registered by the District	No change required	ICU/ED/ Neurosurgery staff			Number deceased patients withDevastating cerebral injury or lesion (DCIL) declared brain dead/ Total number of deceased patients with DCIL X 100 TARGET 50%
	Clinical evaluation of the potential donor is undertaken to identify absolute contraindications for organ donation	Current practice	No change required	Organ Donation for Transplantation Clinician			
Donor Viability	Decisions on medical suitability are made by relevant on- call transplant team, clinical and Organ Donation for Transplantation Unit	Current practice. Audit process by the transplant team	No change required to the process. Add audit process by the Organ Donation for Transplantation Unit in consultation with the transplant team	Organ Donation for Transplantation Clinician and the Transplant surgeon			Number of patients declared brain dead who have been evaluated as organ donors /Total number of patients declared brain dead X 100
	The possible donor is managed in the ICU in partnership between the Intensivist and the Organ Donation for Transplantation Clinician	Not current practice	Review to occur to identify how dialogue can be enhanced between the ICU, transplant teams and Organ Donation for Transplantation Unit to maximise viability/function of the organs without compromising patient care	Intensivist Organ Donation for Transplantation Clinician transplantation team			Protocol for improved communication between Intensivist and Organ Donation for Transplantation Clinician developed

Organ Donation for Transplantation Process	Leading Practice	Current Status at RPA	Actions required	Positions Responsible	Time frame	Indicative cost	KPI's
Donor	Early maintenance of the potential donors suitable for organ donation is in place	Potential donors are provided with the highest possible care for their clinical condition; however, further work is required on timing of family discussions for organ donation	Develop protocol	Intensivist and Organ Donation for Transplantation Clinician			Number of potential DBD donors appropriately managed Number of potential DBD donors in hospital areas X 100
Maintenance	Possible donors are managed in the ICU	Current practice only if the patient's condition requires ICU	No change required	Intensivist and Organ Donation for Transplantation Clinician			No of potential DBD donors who suffered an unanticipated cardiac arrest/ Total number of potential DBD donors X 100
Organ Viability	Clinical evaluation and blood test analysis of each organ is undertaken in order to determine their suitability for transplantation	Current practice decisions on medical suitability are made by the organ donation service, after consultation with on-call transplant surgeons	No change required	Organ Donation and Transplantation Unit			Number of donors correctly evaluated/ Number of donors evaluated X 100 TARGET 100%
Family approach	Early and accurate information about the status and prognosis of the possible donor is provided to family members	Current practice premeeting case discussions are undertaken to ensure all staff members understand the role in supporting donation These discussions include medical, nursing, pastoral care, social work and other staff	No change required	ICU, ED Staff. Organ Donation and Transplantation Unit			
	Preparation occurs for Family interviews, ensuring all information about the possible donor's pathology as well as the background of the family is obtained prior to the interview	Current practice Significant preparation occurs to ensure that family members are well informed and that information is provided in a manner that is sensitive to the family's needs	Clarification and discussion is required to enhance timing of family discussions	Organ Donation and Transplantation Unit			Patient/family discussions conducted in a timely, sensitive manner. Target Consent rate achieved

Organ Donation for Transplantation Process	Leading Practice	Current Status at RPA	Actions required	Positions Responsible	Time frame	Indicative cost	KPI's
	The family is advised about the death (Brain Death) in a timely and sensitive manner and is then introduced to the Organ Donation Team	Current practice. The treating team introduce the donation team to the family, once the treating team are sure that the family understands the death of their relative	No change required	ICU Staff. Organ Donation and Transplantation Unit. NSW OTDS			
	Interviews with the family members are undertaken by staff following a specific methodology (training + experience)	Five clinicians have been trained in Designated Requestors' methodology	The new Clinical Academic to review the methodology used	Organ Donation and Transplantation Unit			Family members interview methodology reviewed
Family approach	Clinicians have been trained in the leading of consent conversations	Current practice	No change required	Organ Donation and Transplantation Unit			
	Family is provided with support after interview regardless of whether they agreed to donation or not	Current practice Family members are well supported	No change required	ICU and Organ Donation for Transplantation Team			
	Mechanical ventilation is discontinued where brain death has been declared and organ donation is not occurring	Current practice Mechanical ventilation is ceased as soon as possible after brain death has been declared	No change required	ICU, ED Staff			
Organ recovery	Organ recovery is considered an emergency procedure with priority in the operating theatres	Current practice	No change required	Theatre management			
Organ recovery	The recovery process is coordinated	Current practice	Additional resources will be required to increase capacity of the team as organ donation increases	Chief Executive SLHD and MoH			Resource requirements for recovery process reviewed and enhanced as required to meet increasing demand

Organ Donation for Transplantation Process	Leading Practice	Current Status at RPA	Actions required	Positions Responsible	Time	Indicative cost	KPľs
Organ recovery	As donation activity increases the hospital has adequate resources including staffing and operating theatre time	Currently RPA is undertaking 71 liver transplants per year and approx 50 kidney transplants per year	Additional resources are required to increase capacity for transplantation	Chief Executive SLHD and MoH		Organ recovery costs between \$8-15k per case. An increase in donor rate from 6 to 10 cases per year will require an additional \$60K annually	Number of organs recovered /number of donors
Organ allocation	Organ allocation is undertaken according to federal/states rules The principles of organ allocation rules: Equity, transparency, Utility,	Current practice	No change required	(Hospital-State- Federal Level)			
Organ Transplantation	Adequate resources are provided for transplantation from all types of donors (Deceased and living)	The current transplantation teams are stretched to capacity	Additional resources will be required to increase capacity of the team	Chief Executive SLHD and MoH	5 year predicted growth and costs	In 2018 the projected number of Liver transplants 130 per annum (average \$120K per case - total \$15.6M) and for Kidney Transplants 160 per annum (average \$33K per case - total \$5.28M)	Number of transplants. Resource requirements for recovery process reviewed and enhanced as required to meet increasing demand. Additional resources include: increased bed base up to 40 additional beds increased medical, nursing and allied health up to 20FTE
Organ Transplant Feedback	Information is provided to the ICU and ED Staff about the outcomes of the transplant performed	Current practice but limited	Could be enhanced and audited	Organ Donation and Transplantation Unit			Feedback process reviewed and enhanced as required
Donor Family Follow-up	Support and information provided to the donor family	Current practice. Donor families are provided with ongoing support and attend an annual memorial ceremony	Could be enhanced and audited. Communication to occur with the organ donation network to maximise support for donor families from the hospital	Organ Donation and Transplantation Unit			Donor family follow-up process reviewed and enhanced as required.





