

A Synopsis on using the Australian Kidney Donor Profile Index (KDPI)

What is the KDPI? The Kidney Donor Profile Index (KDPI) assigns a percentage score to each deceased donor kidney that is offered for transplantation in Australia; the lower the percentage, the better the expected outcomes.

KDPI is derived from the Kidney Donor Risk Index¹, a score devised in the USA based on donor characteristics, then modified and validated using ANZDATA² for use in ANZ. KDRI scores are based on the outcomes of **kidneys that were transplanted** over the previous 3 years. KDPI expresses this score as a percentage to compare the expected outcome for any given kidney to all other kidneys transplanted in that period.

Three important caveats:

(1) The **predictive capacity of KDPI is approximately 70%** - in comparing the outcomes of kidneys from two different donors, KDPI will get it right 70% of the time only.

(2) The comparison is between all kidneys transplanted in the preceding 3 years in ANZ – kidneys that were discarded are NOT included. As our transplant outcomes are, in general, excellent across ANZ, **a KDPI 80+% kidney may still generate a good outcome.**

(3) KDPI does not take into account factors such as peripheral vascular disease, duration or severity of diabetes or hypertension (merely presence or absence), high risk donor behaviours, malignancy, infection, proteinuria, biopsy findings, estimated ischaemia time, or the immunological match.

KDPI is not part of the current allocation algorithm, but maybe used in the future in conjunction with an Expected Post Transplant Survival score (as similar score for recipients, also designed in USA but validated in Australia). Please use KDPI in conjunction with other known recipient and transplant factors.

References and resources.

1. (<https://optn.transplant.hrsa.gov/resources/allocation-calculators/kdpi-calculator/>)
2. Clayton P, White S, McDonald S, Chadban S. VALIDATION OF THE KIDNEY DONOR RISK INDEX (KDRI) IN THE AUSTRALIAN AND NEW ZEALAND KIDNEY TRANSPLANT POPULATION. Nephrology (Carlton, Vic). 2015 Sep;20:36–6.

The KDPI can be calculated manually using the KDPI calculator available on the TSANZ website. The calculator (as an excel spreadsheet) is available for download from TSANZ: <http://www.tsanz.com.au/standalonepages/document-download.asp>

See also Australian KDPI guide. V1.0. Nov 2016 via TSANZ website