

# Review of the New Zealand (NZ) experience with donation after circulatory death (DCD) kidney transplantations 2008-2016

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## Abstract

### Aim

Review of the NZ national experience and outcomes with DCD kidney transplantations since its introduction in 2008.

### Background

Deceased donor kidney donation in NZ has been exclusively from donation after brain death donors for many years. This changed in 2008 with the introduction of DCD transplantations to increase the availability of deceased donors.

### Method

A retrospective review of DCD kidney transplantations performed in NZ between January 2008 and December 2016, with follow-up until March 2017. Patients were identified from ANZDATA registry and Organ Donation New Zealand database. Data collected were: age, gender, ethnicity, mortality, immediate and long-term graft function, cold ischaemic time, graft number and co-morbidities.

### Results

A total of 42 DCD transplantations were conducted in NZ during the study period from 22 donors. The majority of the recipients were male (71%) with a mean age of 50.1 (+/-14.4). 57% of the recipients developed delayed graft function (DGF) requiring renal replacement therapy for a mean duration of 7.25 (+/- 5.7) days after transplantation. There was no primary graft non-function. All-cause graft survival was 90% at 1 year, 86% at 2 years, and 86% at 5 years. Death censored graft survival was 100% at 1 year, 95% at 2 years, and 95% at 5 years. Mean creatinine were 181umol/L, 140umol/L, 139umol/L, 132umol/L, and 150umol/L at 1 month, 3 months, 6 months, 1 year, and 5 years after transplantation respectively.

### Conclusion

DCD kidney transplantations in NZ had favourable long term graft survival with good renal function despite high DGF in the initial post-transplantation period.