

APPENDIX 2: Study Characteristics

Primary Author, Year, Country, Study Type, (transplant years)	Objectives, follow up	Recipient Characteristics (%)	Clinical Outcomes Measured
Wadei <sup>10</sup> 2013  USA  Retrospective chart review (2000-2008)	To compare kidney function between DCD and DBD kidney transplant recipients	<b>DCD</b> n = 64 mean age = 56 years (range 25 to 79) male = 40 (63) white = 37 (58)  <b>DBD</b> n = 248 mean age = 57 years (range 21 to 83) male = 141 (57) white = 157 (63)	<b>Primary endpoint</b> Composite of death-censored graft loss or two consecutive iGFR < 50mL/min/1.73m <sup>2</sup> occurring within 5 years of transplant  <b>Secondary endpoints</b> Death Graft loss or death
Nagaraja <sup>6</sup> 2012  UK  Single-centre retrospective cohort study (2004-2010)	To compare medium-term graft and patient outcomes between controlled DCD and DBD kidney transplants.  Median follow up = 4.5 years	<b>DCD</b> n = 80 Median age = 51.5 years (range 19 to 72) Male = 54 (68)  <b>DBD</b> n = 226 Median age = 51 years (18 to 78) Male = 144 (64)	<b>1 year</b> Graft survival rate Patient survival rate eGFR serum creatinine biopsy-proven acute rejection  <b>4 year</b> Death-censored graft survival
Bellingham <sup>11</sup> 2011  USA  Retrospective review (1980-2008)	To report the long-term outcomes of organs transplanted after controlled DCD	<b>DCD</b> n = 1038 Mean age = 44.8 years (SD = 13.2) Male = 587 (57)  <b>DBD</b> n = 3470 Mean age = 47.6 years (SD = 13.4) Male = 1606 (46)	patient survival graft survival DGF acute rejection
Pine <sup>7</sup> 2010  UK  Case-matched retrospective	To compare initial DCD experience with DBD results	<b>DCD</b> n = 103 Mean age = 50.4 years Male = 60 (58)  <b>DBD</b> n = 183	Delayed graft function Primary non-function Biopsy-proven acute rejection episodes eGFR Recipient survival at 1 and 3 years

cohort study (2002-2007)		Mean age = 50.5 years Male = 104 (57)	Graft survival at 1 and 3 years
Singh <sup>12</sup> 2011  USA  Single centre retrospective chart review (2001-2008)	To evaluate the impact of delayed graft function on controlled DCD transplant outcomes.  Mean follow-up 36 months	Overall recipient characteristics were not described  <b>DCD</b> n = 70  <b>DBD</b> n = 508	Patient death Death-censored graft loss Biopsy-proven acute rejection episodes Infections Renal allograft function
Snoeijs <sup>3</sup> 2010  Netherlands  Case-matched retrospective cohort (1981-2005)	To report the first 25 years of DCD kidney transplants. Recipients of controlled and uncontrolled DCD kidneys with matched DBD controls.  Mean follow up: ~ 6.8 years	<b>DCD</b> n = 297 mean age = 49 years (SD = 13) male = 66 (34)  <b>DBD</b> n = 594 mean age = 49 years (SD = 13) male = 57 (43)	<b>All grafts</b> Primary non-function Death-censored graft survival at 15 years Patient survival at 15 years  <b>Viable Grafts</b> Delayed graft function Duration of delayed graft function GFR at 1 year Decline in GFR Death-censored graft survival at 15 years Patient survival at 15 years
Snoeijs <sup>13</sup> 2010  Netherlands  Retrospective cohort study (1999-2005)	To determine the survival advantage of kidney transplant from controlled or uncontrolled DCD over remaining on dialysis and waiting for DBD transplant.  Mean follow up (years): DCD 1.7, DBD 2.3, Dialysis 1.8	<b>DCD</b> n = 459 Mean age = 51 years (SD = 13) Male = 63%  <b>DBD</b> n = 680 Mean age = 46 years (SD = 18) Male = 57%  <b>Waiting list</b> n = 2575 Mean age = 49 years (SD = 15) Male = 60%	Overall mortality of DCD or DBD compared with waiting on dialysis Graft failure
Summers <sup>8</sup> 2010  UK	To compare outcomes following kidney transplant after controlled DCD	<b>DCD</b> n = 845 mean age = 49.3 years (SD = 12.8) male = 542 (64)	Primary non-function Graft failure up to 30 days Immediate function Acute rejection up to 3 months

<p>Multi-centre retrospective cohort study (2000-2007)</p>	<p>or DBD and to identify factors that affect graft survival and function</p> <p>Median follow-up 6.1 years</p>	<p>white = 695 (83)</p> <p><b>DBD</b> n = 8289 mean age = 46.8 years (SD = 13.0) male = 5065 (61) white = 6925 (85)</p>	<p>eGFR (mL/min/1.73m<sup>2</sup>)</p> <p>Sensitization at transplantation</p> <p>Graft survival up to 5 years</p> <p>Survival of patients up to 5 years</p>
<p>Barlow<sup>9</sup> 2009</p> <p>UK</p> <p>Case-matched retrospective cohort study (1992-2003)</p>	<p>To provide data on the long-term graft survival and function of renal transplants from NHBD compared with HBD donors (controlled and uncontrolled)</p> <p>Follow up = 5 to 15 years</p>	<p><b>NHBD</b> n = 112 mean age = 49 years (SD = 12) male = 72 (64.3)</p> <p><b>HBD</b> n = 164 mean age = 48 years (SD = 13) male = 105 (64.0)</p>	<p>Primary non-function</p> <p>DGF</p> <p>early death</p> <p>immediate graft function</p>

DBD = donation after brain death; DCD = donation after cardiac death; DGF = delayed graft function; eGFR = estimated glomerular filtration rate; HBD = heart beating donors; iGFR = iothalamate glomerular filtration rates; NHBD = non-heart beating donors; SD = standard deviation; UK = United Kingdom