Comparison survival **Expanded** Criteria of outcomes between **Donor** and Standard Criteria Donor kidney transplant recipients: a systematic review and

meta-analysis

Anne-Hélène Querard^{1,2,3}, MD, Yohann Foucher^{2,3} PhD, Christophe Combescure⁴ PhD, Etienne Dantan²

PhD, David Larmet³ MD, Marine Lorent² MSc, Lise-Marie Pouteau³ MD, Magali Giral, 2, 35 PhD and

Florence Gillaizeau^{2,3} PhD

¹Nephrology, Dialysis, Transplantation, Centre Hospitalier Départemental de Vendée,

La Roche sur Yon, France

²EA 4275 SPHERE - bioStatistics, Pharmacoepidemiology and Human sciEnces REsearch, Nantes

University, France

³Institute for Transplantation, Urology and Nephrology ITUN, CHU Nantes,

RTRS « Centaure », Inserm U1064, Nantes University, France

⁴CRC & Division of Clinical Epidemiology, Department of Health and Community Medicine, University of

Geneva & University Hospitals of Geneva, Geneva, Switzerland

⁵ LabEx Transplantex Nantes, Centre d'Investigation Clinique Biothérapie, Nantes France

Correspondence: Doctor Anne-Hélène OUERARD

Nephrology, Dialysis, Transplantation

1 Bd Stéphane Moreau, 85 000 La Roche sur Yon, France

Phone: + 33-2 51 44 61 63, Fax: + 33-2 51 44 63 02

Email: anne-helene.querard@chd-vendee.fr

Running title: ECD versus SCD survival outcomes: a meta-analysis

1

DESCRIPTION OF SUPPLEMENTARY INFORMATION

Supplementary information is available at Transplant International's website.

Supplemental information S1: Search equation

Supplemental Table S2. Donors, recipients and transplantation characteristics for the studies reporting survival outcomes of ECD kidney recipients (n=32) according to geographical area of studies.

Supplemental figure S3. Overall patient-graft survival for ECD kidney recipients according to geographical area.

Supplemental figure S4. Overall patient-graft survival for SCD kidney recipients according to geographical area.

Supplemental figure S5. Overall patient survival for ECD kidney recipients according to geographical area.

Supplemental figure S6. Overall patient survival for SCD kidney recipients according to geographical area.

Supplemental figure S7. Overall death-censored graft survival for ECD kidney recipients according to geographical area.

Supplemental figure S8. Overall death-censored graft survival for SCD kidney recipients according to geographical area.

Supplemental figure S9. Overall patient-graft survival for ECD and SCD kidney recipients.

Supplemental figure S10. Overall patient survival for ECD and SCD kidney recipients.

Supplemental figure S11. Overall death-censored graft survival for ECD and SCD kidney recipients.

Supplemental information S1. Search equation

[(expand* AND criter*) OR marginal OR ECD OR "expanded criteria donor"] AND [donor* OR ECD*] AND [kidney* OR renal*] AND [graft* OR allograft* OR transplant*] AND [surviv* OR Kaplan* OR Meier* OR death* OR dead* OR dialys* OR fail* OR curve* OR model* OR hazard* OR HR* OR (relative AND risk) OR RR*].

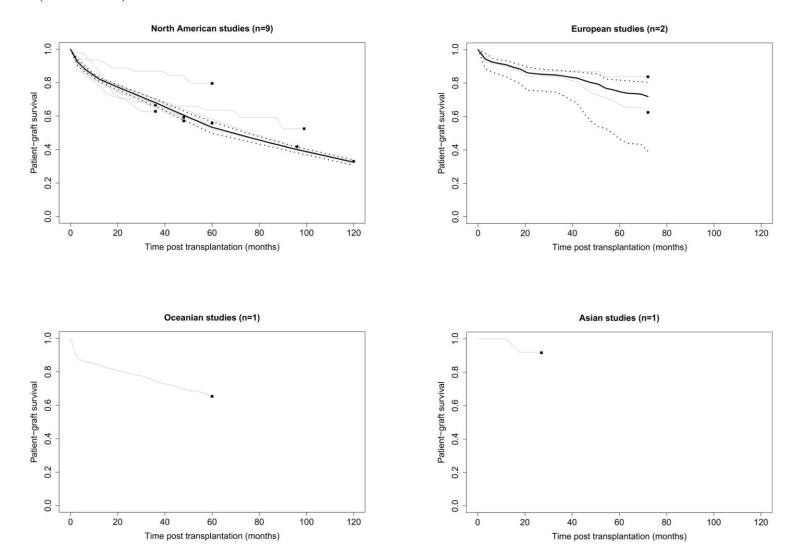
Supplemental Table S2. Donors, recipients and transplantation characteristics for the studies reporting survival outcomes of ECD kidney recipients (n=32) according to geographical area of studies.

	North America (n=17)					Europe (n=10)					Oceania/Asia (n=5)				
	n	mean	SD	min	max	n	mean	SD	min	max	n	mean	SD	min	max
Donors															
sample size	14	4,851.6	7,547.1	36	28,461	10	237.6	235.5	30	672	4	264.5	434.6	26	916
age (years)	10	61.2	2.5	58.0	65.4	7	63.5	2.1	60.0	66.0	3	60.0	5.5	53.7	63.4
male gender (%)	8	49.4	5.8	44.4	63.3	7	46.1	11.5	28.9	59.4	2	50.6	6.3	46.2	55.1
serum creatinine (mg/dL)	7	1.0	0.1	0.8	1.2	4	1.1	0.1	0.9	1.2	1	1.5	NA	NA	NA
history of HBP (%)	6	60.1	16.1	27.6	70.2	3	57.1	10.8	50.0	69.6	2	59.7	2.8	57.7	61.7
cause of death: CVA (%)	8	83.8	2.4	79.0	85.8	6	81.3	5.0	76.3	89.2	1	76.9	NA	NA	NA
Recipients															
sample size	17	4,741.2	6,148.2	27	22,515	10	244.6	232.2	30	672	5	367.8	441.6	26	916
age (years)	12	57.1	5.1	50.7	66.5	7	54.9	3.3	50.0	58.4	3	49.2	2.5	47.1	52.0
male gender (%)	9	61.4	3.2	55.0	65.4	5	57.2	12.4	35.6	65.8	3	60.8	6.1	53.8	64.5
Transplantation															
CIT (hours)	11	19.5	2.2	16.2	24.1	6	17.6	3.6	12.5	23.6	2	8.7	7.2	3.6	13.8
HLA mismatch	4	4.0	0.5	3.4	4.5	4	2.8	0.7	1.9	3.4	2	3.5	0.3	3.3	3.7

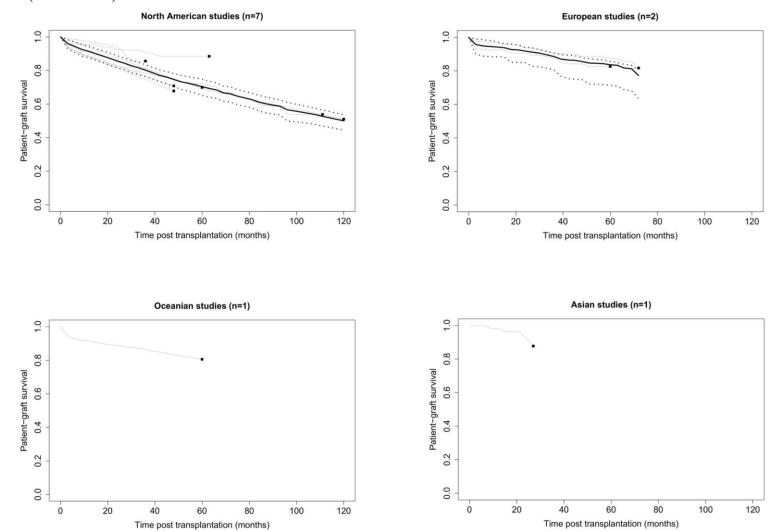
n=number of studies reporting a description of the characteristics, NA=Not Appropriate.

CIT: Cold Ischemia Time, CVA: CerebroVascular Accident, HBP: High Blood Pressure, HLA: Human Leukocyte Antigen.

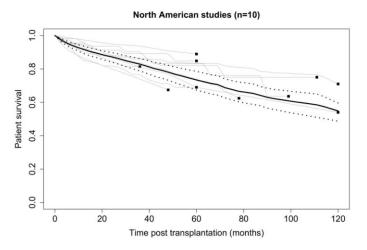
Supplemental figure S3. Overall patient-graft survival for ECD kidney recipients according to geographical area. The grey lines represent the patient-graft survival in each study and the black square the end of the follow-up. The thick lines represent the pooled non-adjusted patient-graft survival curves with the 95% confidence bands (dashed lines).

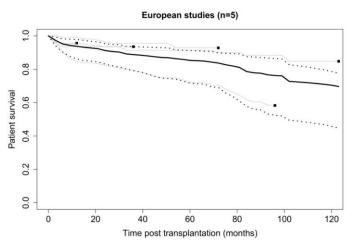


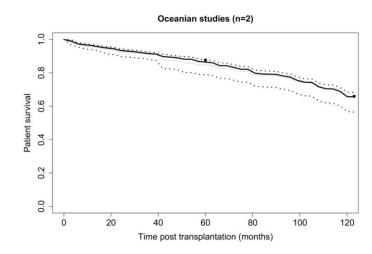
Supplemental figure S4. Overall patient-graft survival for SCD kidney recipients according to geographical area. The grey lines represent the patient-graft survival in each study and the black square the end of the follow-up. The thick lines represent the pooled non-adjusted patient-graft survival curves with the 95% confidence bands (dashed lines).



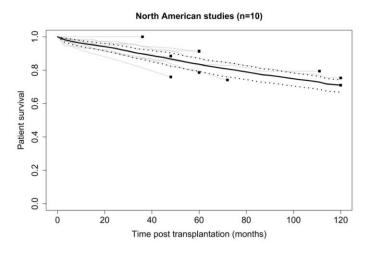
Supplemental figure S5. Overall patient survival for ECD kidney recipients according to geographical area. The grey lines represent the patient survival in each study and the black square the end of the follow-up. The thick lines represent the pooled non-adjusted patient survival curves with the 95% confidence bands (dashed lines).

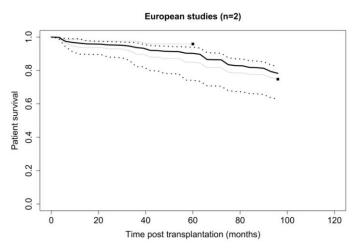


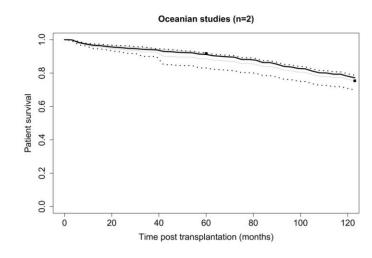




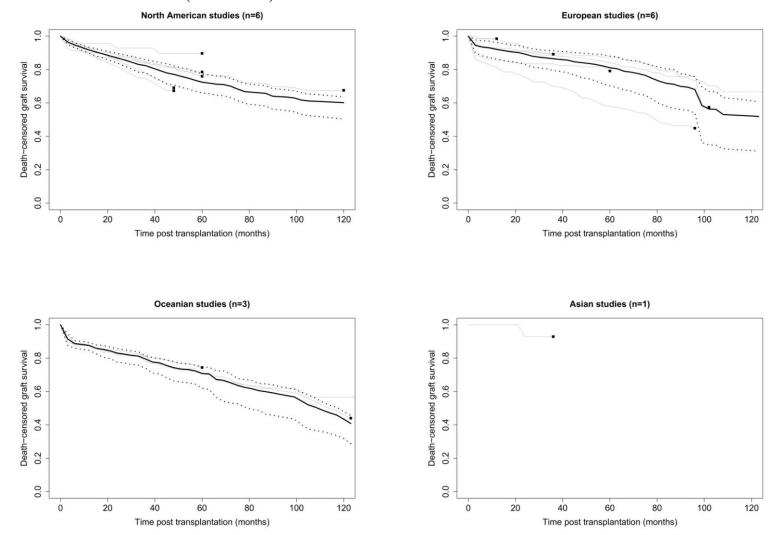
Supplemental figure S6. Overall patient survival for SCD kidney recipients according to geographical area. The grey lines represent the patient survival in each study and the black square the end of the follow-up. The thick lines represent the pooled non-adjusted patient survival curves with the 95% confidence bands (dashed lines).



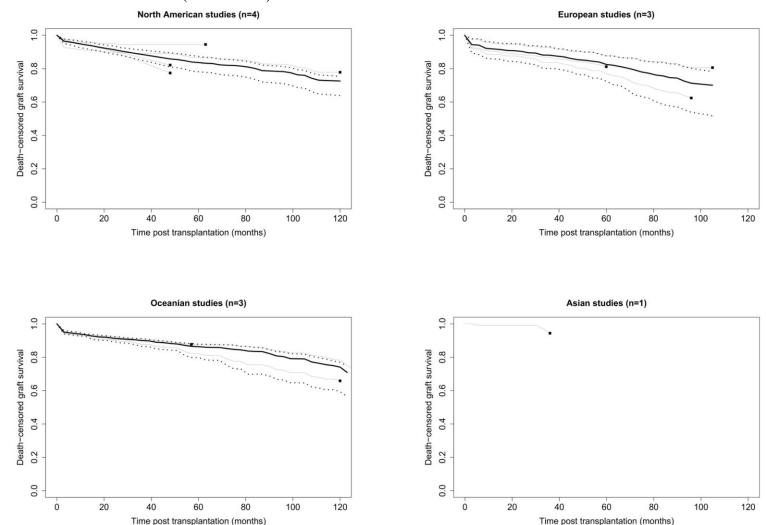




Supplemental figure S7. Overall death-censored graft survival for ECD kidney recipients according to geographical area. The grey lines represent the death-censored graft survival in each study and the black square the end of the follow-up. The thick lines represent the pooled non-adjusted death-censored graft survival curves with the 95% confidence bands (dashed lines).

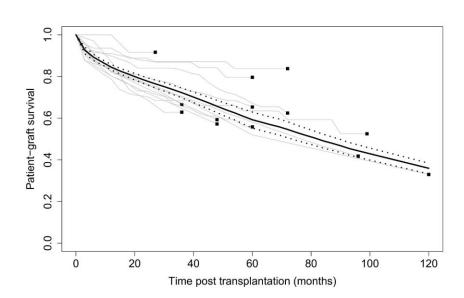


Supplemental figure S8. Overall death-censored graft survival for SCD kidney recipients according to geographical area. The grey lines represent the death-censored graft survival in each study and the black square the end of the follow-up. The thick lines represent the pooled non-adjusted death-censored graft survival curves with the 95% confidence bands (dashed lines).

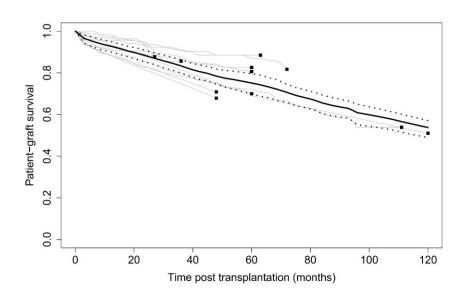


Supplemental figure S9. Overall patient-graft survival for kidney recipients: A) for ECD, B) for SCD. The grey lines represent the patient-graft survival in each study and the black square the end of the follow-up. The thick lines represent the pooled non-adjusted patient-graft survival curves with the 95% confidence bands (dashed lines).

A

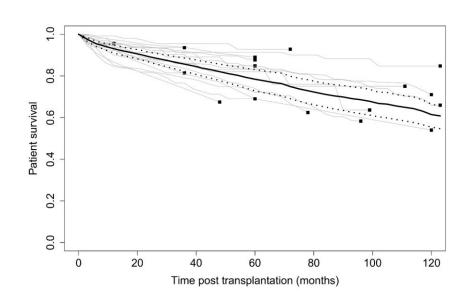


B

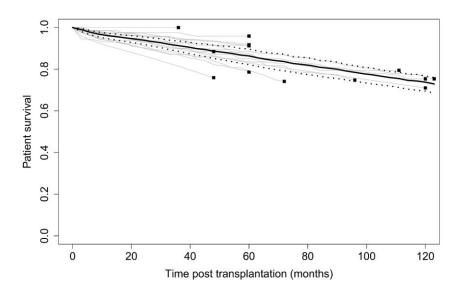


Supplemental figure S10. Overall patient survival for kidney recipients: A) for ECD, B) for SCD. The grey lines represent the patient survival in each study and the black square the end of the follow-up. The thick lines represent the pooled non-adjusted patient survival curves with the 95% confidence bands (dashed lines).

A

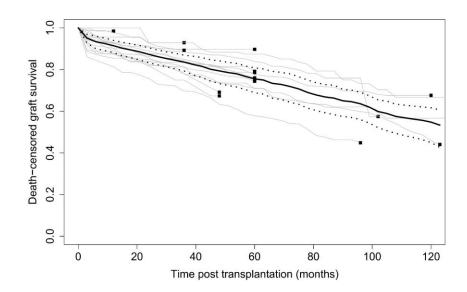


B



Supplemental figure S11. Overall death-censored graft survival for kidney recipients: A) for ECD, B) for SCD. The grey lines represent the death-censored graft survival in each study and the black square the end of the follow-up. The thick lines represent the pooled non-adjusted death-censored graft survival curves with the 95% confidence bands (dashed lines).

A



B

