

Appendix 5: Search strategy, study inclusion flow diagram, and characteristics of included studies (as supplied by the authors)

Search Strategy for OVID/MEDLINE

Set Search Statement

- #1 (start\$ OR initiation OR initiate\$ OR initiating OR timing OR commenc\$).ti.
- #2 (((start\$ OR initiation OR initiate\$ OR initiating OR commenc\$) AND timing) OR ((early\$ OR late\$ OR earlier OR delay\$) adj (start OR initiation))).tw.
- #3 OR/#1-#2
- #4 exp Renal Dialysis/ OR h?emodialy\$.tw. OR dialy\$.ti. OR peritoneal dialysis.mp. OR dialysis patient\$.tw. OR ((end stage OR endstage) adj (kidney OR renal)).ti. OR dialysis therapy.tw. OR exp *Hemofiltration/ OR *Renal Replacement Therapy/ OR esrd.ti. OR renal replacement.ti. OR capd.tw. OR ur?emic patient\$.tw. OR h?emofilt\$.tw. OR intradialy\$.tw. OR sevelamer.mp. OR ur?emia.ti. OR tenckhoff\$.tw. OR renal hyperparathyroidism.tw. OR ccpd.tw. OR nephrogenic systemic fibrosis.tw. OR (((((kidney OR renal) adj failure) OR (chronic adj (kidney OR renal))).tw. OR Catheterization, Central Venous/ OR Catheters, Indwelling/ OR renal replacement.mp. OR infection\$.mp. OR erythropoietin\$.mp. OR fistula\$.tw. OR hyperoxaluria.mp.) AND dialysis.tw.) OR (exp Renal Insufficiency/ AND (Catheters, Indwelling/ OR erythropoietin\$.mp. OR Catheterization, Central Venous/ OR an?emi\$.ti. OR nephrogenic.tw. OR amyloid\$.mp.)) OR ((chronic OR end-stage).mp. AND (renal replacement OR azot?emia).tw.) OR (((chronic adj (kidney OR renal)) OR ur?emi\$ OR ckd).ti. AND (inflammation.tw. OR erythropoietin\$.mp. OR renal osteodystrophy.mp. OR hypertrophy.tw.)) OR ((ur?emi\$.ti. OR *Uremia/) AND (calcification.tw. OR hyperparathyroidism secondary.mp. OR pruritus.mp. OR secondary hyperparathyroidism.tw.)) OR (((kidney OR renal) adj transplant\$) AND candidates).tw. OR (encapsulating.tw. AND sclerosis.mp.)
- #5 #3 AND #4
- #6 ((early\$ OR earlier OR late\$ OR delay\$) adj (dialys\$ OR h?emodialys\$ OR renal replacement)).tw.
- #7 ((start\$ OR initiation OR initiate\$ OR initiating OR timing OR commenc\$) adj3 (chronic dialysis OR dialy\$ OR h?emodialys\$ OR renal replacement)).tw. AND ((eGFR OR mGFR OR (residual adj (renal OR kidney)) OR rGFR OR GFR OR glomerul\$ filtration rate\$ OR cGFR OR (ml\$ adj min) OR MDRD\$).mp. OR (serum albumin OR serum creatinine).tw.)
- #8 (((start\$ OR initiation OR initiate\$ OR initiating OR timing OR commenc\$) adj2 (dialys\$ OR h?emodialys\$)) AND (mortality AND survival)).mp.
- #9 (((start\$ OR initiation OR initiate\$ OR initiating OR timing OR commenc\$) adj2 (dialys\$ OR h?emodialys\$)) AND ((early\$ OR earlier OR late OR later OR delay\$) adj3 (dialysis OR

- h?emodialysis))).tw.
- #10 (initiation adj5 (dialysis OR h?emodialysis)).tw. AND ((eGFR OR mGFR OR (residual adj (renal OR kidney)) OR rGFR OR GFR OR glomerul\$ filtration rate\$ OR cGFR OR (ml\$ adj min) OR MDRD\$).tw. OR Time Factors/ OR Glomerular Filtration Rate/)
 - #11 ((start\$ OR initiation OR initiate\$ OR initiating OR timing OR commenc\$) adj2 (dialys\$ OR h?emodialys\$ OR renal replacement)).tw. AND ((mortality OR morbidity OR death OR died OR prolong\$).tw. OR mo.fs.) AND (survival.tw. OR time factors/ OR risk factor\$.tw.)
 - #12 (peritoneal clearance\$ AND dialysis).ti. AND ((mortality OR morbidity OR death OR died OR prolong\$).tw. OR mo.fs.)
 - #13 OR/#5-#12
 - #14 (aki OR intensive care OR icu OR (acute adj (kidney OR renal))).ti. OR critical.jw.
 - #15 *Acute Kidney Injury/ NOT *Kidney Failure,Chronic/
 - #16 ((transplant\$ OR donor\$) NOT (dialys\$ OR h?emodialys\$ OR end-stage)).ti.
 - #17 #13 NOT (#14 OR #15 OR #16)
 - #18 limit #17 to (case reports OR editorial OR letter OR news)
 - #19 #17 NOT #18
 - #20 #19 NOT (animals/ NOT (humans/ OR exp persons/))

Figure 1: Studies identified and selected through search strategy

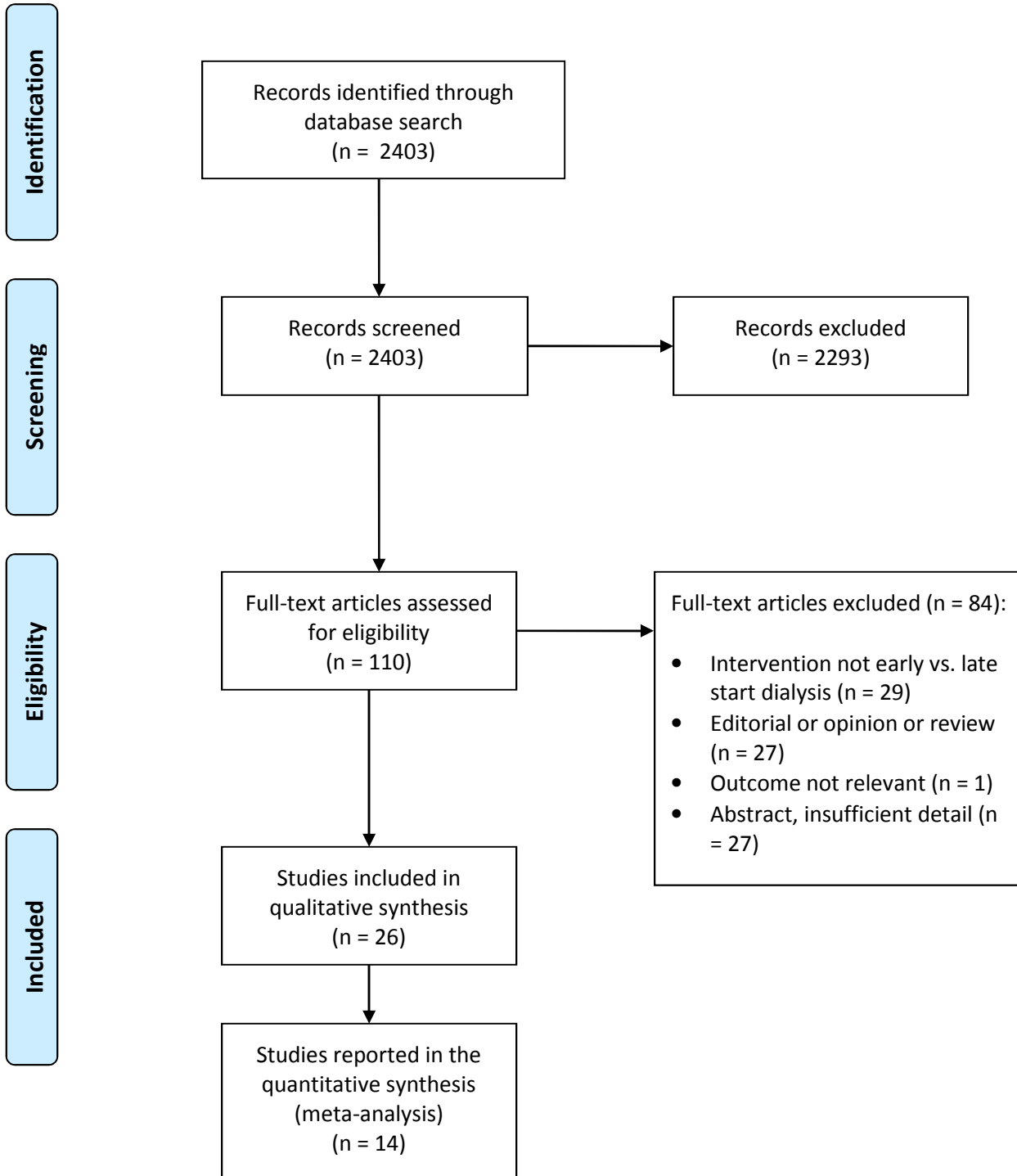


Table 1: Characteristics of studies included in systematic review, by outcome

Author	Country	Year	Study design	Data source	Accrual period	No. of patients	Dialysis modality	Max f/u length (y)	Mean age (y)	Mean eGFR (early)	Mean eGFR (late)	Men (%)	DM (%)	Reported outcome(s)
Fink ¹	US	1999	RCS	Multicentre	1995–1996	5388	HD, PD	3	NR*	NR	NR	53	40‡	Mortality
Korevaar ²	NL	2002	PCS	Multicentre	1997–1999	237	HD, PD	1	56	7.1	4.9	61	17‡	QOL
Pupim ³	US	2003	PCS	Single centre	NR	149	HD	1	55	NR†	NR	48	39	Hospitalization
Cooper ⁴	AU	2003	RCS	Single centre	NR	134	NR	N/A	—	NR	NR	56	21	Nutritional status
Tang ⁵	HK	2007	PCS	Single centre	2002–2004	233	PD	2	58	9.2	8.9	51	42	Hospitalization
Shiao ⁶	TW	2008	RCS	Single centre	1997–2005	275	PD	6	51	6.8	3.5	45	19	Hospitalization
Kim ⁷	KO	2009	RCS	Single centre	2000–2005	210	HD, PD	7	50	8.0	3.4	33	47	Mortality, hospitalization
Coronel ⁸	SP	2009	RCS	Single centre	1982–2004	100	PD	5	53	10.6	5.4	65	100	Hospitalization
Rosansky ⁹	US	2009	RCS	Registry	NR	>900 000	HD, PD	1	NR	NR	NR	NR	NR	Mortality
Collins ¹⁰	AU & NZ	2011	RCT	Multicentre	2000 – 2008	362	HD	7	59	9.5	9.6	73	43	Mortality
Harris ¹¹	AU & NZ	2011	RCT	Multicentre	2002 – 2008	642	HD, PD	7	60	13.1	13.2	66	43	QOL, hospitalization
Sjolander ¹²	SW	2011	PCS	Multicentre	1996–1998	441	HD, PD	5	NR*	NR*	NR*	70	31	Mortality
Korevaar ¹³	NL	2001	PCS	Registry	1997–1999	253	HD, PD	3	57	7.1	1.9	62	NR	Mortality
Traynor ¹⁴	GB	2002	RCS	Registry	1987–2000	235	HD, PD	10	55	NR*	NR*	67	22	Mortality
Beddhu ¹⁵	US	2003	RCS	Registry	1996–1997	2920	HD, PD	2	59	10.9	5.6	53	42	Mortality
Kazmi ¹⁶	US	2005	RCS	Registry	1996–1999	302 287	HD, PD	5	62	NR*	NR*	53	48	Mortality
Wilson ¹⁷	CA	2007	RCS	Single centre	2001–2005	271	HD	2	66	NR*	NR*	61	51	Mortality
Sawhney ¹⁸	GB & CA	2009	RCS	Registry	2000–2005	7299	HD, PD	5	51	NR*	NR*	58	NR	Mortality
Stel ¹⁹	NL	2009	RCS	Registry	1999, 2003	11 472	HD, PD	2	64	NR*	NR*	61	NR	Mortality
Lassalle ²⁰	FR	2010	RCS	Registry	2002–2009	11 685	HD, PD	4	67	NR*	NR*	62	36	Mortality
Hwang ²¹	TW	2010	RCS	Registry	2001–2004	23 551	HD	1	62	NR*	NR*	48	50	Mortality
Cooper ²²	AU	2010	RCT	Multicentre	2000–2008	828	HD, PD	7	60	9.8	9.9	66	43	Mortality
Wright ²³	US	2010	RCS	Registry	1995, 2000–2006	611 913	HD, PD	5	65	NR*	NR*	54	57	Mortality
Rosansky ²⁴	US	2011	RCS	Registry	1996–2006	81 176	HD	11	46	NR*	NR*	58	9	Mortality
Clark ²⁵	CA	2011	RCS	Registry	2001–2007	25 910	HD	7	65	15.5	7.1	60	46	Mortality
Evans ²⁶	SW	2011	PCS	Multicentre	1996–1998	708	HD, PD	7	57	10.8	5.5	66	NR	Mortality

Note: AU=Australia; DM=diabetes mellitus; eGFR=estimated glomerular filtration rate; f/u=follow-up; HD=hemodialysis; HK=Hong Kong; KO=Korea; NL=Netherlands; NR=not reported; NZ=New Zealand; PCS=prospective cohort study, PD=peritoneal dialysis; QOL=quality of life; SP=Spain; SW=Sweden; TW=Taiwan; US=United States.

*Reported categorically.

†Only mean 24-hour creatinine clearance (mL/min/1.73 m²) reported for total sample.

‡Only diabetes mellitus as primary cause of kidney disease was reported.

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