**S1 Table.** Study Characteristics

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study, Year (Reference) | Country | Randomly assigned patients, n | Number of arms | Women, % | Age, y (SD) | Stage of CKD | Comparison | Diabetes, n (%) | Hypertension, n (%) | Follow-up duration in months |
| Chertow et al, 2002[35](#_ENREF_35) | United States, Austria and Germany | 99101 | 2 | 70, 35% | 57 (14)56 (16) | Stage 5D | Sevelamer vs. calcium | 32%33% | 86%83% | 12 |
| Sadek et al, 2003[47](#_ENREF_47) | France | 2121 | 2 | - | - | Stage 5D | Sevelamer vs. calcium | - | - | 5 |
| Block et al, 2007 [33](#_ENREF_33) | United States and Italy | 6067 | 2 | 42%36% | 56 (14)58 (14) | Stage 5D | Sevelamer vs. calcium | 60%56% | 95%98% | 60 |
| Russo et al, 2007 [46](#_ENREF_46) | Italy | 303030 | 3 | 3 (10%)5 (16%) | 55 (13)54 (12) | Non-dialysis | Sevelamer vs. calcium vs. phosphorus restricted diet | - | - | 24 |
| Barreto et al, 2008 [31](#_ENREF_31) | Brazil | 5249 | 2 | 34%30% | 47 (13)47 (14) | Stage 5D | Sevelamer vs. calcium | 15%13% | 66%73% | 12 |
| Qunibi et al, 2008 [45](#_ENREF_45) | United States | 100103 | 2 | 54%42% | 60 (12)58 (12) | Stage 5D | Sevelamer vs. calcium | 57%57% | 31%31% | 12 |
| Suki et al, 2008[48](#_ENREF_48)  | United States | 10531050 | 2 | 479 (45%)481(48%) | 59 (14)60 (15) | Stage 5D | Sevelamer vs. calcium | 50%50% | 33%33% | 45 |
| Takei et al, 2008[50](#_ENREF_50)  | Japan | 2220 | 2 | 50%45% | 54 (10)54 (9) | Stage 5D | Sevelamer vs. calcium | 36%36% | - | 6 |
| Wilson et al, 2009 [54](#_ENREF_54) | United States and United Kingdom | 680674 | 2 | 42%38% | 54 (14)60 (14) | Stage 5D | Lanthanum vs.Standard treatment | 34%34% | 31%28% | 24 |
| De Francisco et al,[34](#_ENREF_34) 2010[36](#_ENREF_36)  | Spain, Portugal, Germany, Italy, Romania and Poland | 127125 | 2 | 49%47% | 56 (12)59 (14) | Stage 5D | Sevelamer vs. calcium | 20%24% | - | 6 |
| Kakuta et al, 2011 [40](#_ENREF_40) | Japan | 9192 | 2 | 43%49% | 59 (12)57 (12) | Stage 5D | Sevelamer vs. calcium | - | 60%64% | 12 |
| Toussaint et al, 2011 [51](#_ENREF_51) | Australia | 2223 | 2 | 45%26% | 56 (15)59 (15) | Stage 5D | Lanthanum vs calcium | 32%35% | 9%9% | 18 |
| Block et al, 2012[34](#_ENREF_34)  | United States, Germany and United Kingdom | 57283030 | 4 | 21%18%20%20% | 65 (12)70 (10)66 (12)68 (12) | Non-dialysis | Placebo vs.Lanthanum vs.Sevelamer vs.Calcium | 58%57%53%57% | 100%100%97%97% | 10 (median follow-up time 249 days) |
| Di Iorio et al, 2012[37](#_ENREF_37)  | United States and Italy | 232234 | 2 | 50%52% | 67 (14)65 (15) | Stage 5D | Sevelamer vs. calcium | 30%29% | 78%81% | 24 |
| Di Iorio et al, 2013 [38](#_ENREF_38) | Italy | 121118 | 2 | 39%39% | 57 (12)59 (12) | Non-dialysis | Sevelamer vs. calcium | 27%29% | 73%76% | 36 |
| Lee et al, 2013 [42](#_ENREF_42) | Korea | 50 | 2 | 45%63% | 48 (11)52 (11) | Stage 5D | Lanthanum vs calcium | 30%17% | 35%37% | 6 |
| Ohtake et al, 2013 [44](#_ENREF_44) | Japan | 2626 | 2 | 40% | 68 (6) | Stage 5D | Lanthanum vs calcium | 43% | - | 12 |
| Wuthrich et al, 2013 [55](#_ENREF_55) | Canada, United States, Romania, and Switzerland | 24126 | 2 | 58%37% | 60 (13)62 (11) | Stage 5D | Sevelamer vs. sucroferric oxyhydroxide | 38%32% | 67%75% | 1.5 |
| Xu et al, 2013 [56](#_ENREF_56) | China | 115115 | 2 | 47%36% | 48 (13)48 (12) | Stage 5D | Lanthanum vs. Placebo | - | - | 2 |
| Floege et al, 2014[39](#_ENREF_39)  | United States, Romania, Germany and Switzerland | 349710 | 2 | 37%45% | 56 (15)56 (13) | Stage 5D | Sevelamer vs. sucroferric oxyhydroxide | - | - | 6 |
| Takahara et al, 2014 [49](#_ENREF_49) | Japan | 8655 | 2 | 55%27% | 61 (11)62 (13) | Non-dialysis | Lanthanum vs. Placebo | - | - | 2 |
| Urena-Torres et al, 2014 [52](#_ENREF_52) | France | 1712 | 2 | 41%58% | 66 (15)69 (13) | Non-dialysis | Lanthanum vs. Placebo | - | - | 3 |
| Wada et al, 2014 [53](#_ENREF_53) | Japan | 2122 | 2 | 23%21% | 66 (10)66 (8) | Stage 5D | Lanthanum vs calcium | 100%100% | - | 12 |
| Yokoyama et al, 2014 [57](#_ENREF_57) | Japan and Unites States | 110115 | 2 | 35%37% | 62 (10)60 (11) | Stage 5D | Sevelamer vs JTT-751 | - | - | 3 |
| Yokoyama et al, 2014 [58](#_ENREF_58) | Japan and Unites States | 6030 | 2 | 42%41% | 65 (10)65 (14) | Non-dialysis and dialysis | Ferric citrate vs. Placebo | - | - | 3 |
| Block et al, 2015[32](#_ENREF_32)  | United States, Germany and Spain | 7574 | 2 | 69%62% | 66 (12)64 (14) | Non-dialysis and dialysis | Ferric citrate vs. Placebo | 67%71% | - | 3 |
| Lee et al, 2015 [41](#_ENREF_41) | Taiwan | 367572 | 3 | 37%43%31% | 53 (12)53 (11)53 (12) | Stage 5D | Ferric citrate vs. Placebo | - | - | 2 |
| Lewis et al, 2015 [43](#_ENREF_43) | United States | 292149 | 2 | 37%42% | 56 (45-63)54 (45-63) | Stage 5D | Ferric citrate vs.Active control (calcium acetate and sevelamer) | - | - | 12 |