

Appendix 2: Electronic Search strategies

Used Cochrane highly sensitive search strategies for identifying controlled trials in PubMed, Embase (Ovid) and CINAHL (EBSCOhost)

PubMed

No.	Search terms	Number of hits
#1	"Renal Insufficiency"[Mesh] OR "Renal Replacement Therapy "[Mesh] OR "ESRD" OR "end-stage renal disease" OR "end-stage kidney disease" OR "ESKD" OR "CKD" OR "chronic kidney disease" OR "Kidney disease" OR "kidney failure" OR "renal failure" OR "kidney insufficiency" OR "renal disease" OR "renal insufficiency" OR "renal insufficiencies" OR "kidney insufficiencies" OR "peritoneal" OR haemodialys* OR Hemodialys* OR dialys* OR "renal dialysis" OR "renal replacement therapy" OR "kidney replacement therapy"	620,846
#2	"Prolyl-Hydroxylase Inhibitors"[Mesh] OR "Hypoxia-Inducible Factor 1"[Mesh] OR "HIF PHI" OR "HIF-PHI" OR "Hypoxia-inducible factor prolyl hydroxylase inhibitor*" OR "Hypoxia-Inducible Factor 1, alpha Subunit" OR "prolyl hydroxylase inhibitor*" OR "proline dioxygenase inhibitor*" OR "hypoxia induced factor*" OR "HIF1- α " OR "hypoxia-inducible factor stabilizer" OR "HIF stabilizer" OR "HIF stabiliser" OR Daprodustat OR Desidustat OR Enarodustat OR Molidustat OR Roxadustat OR Vadadustat OR "GSK1278863" OR Duvroq OR evrenzo OR "AKOS037515648" OR "ZYAN1" OR "Y962PQA4KS" OR "JTZ-951" OR Enaroy OR "BAY 85-3934" OR "FG-4592" OR "FG4592" OR "ASP1517" OR "AZD9941" OR "AKB-6548" OR "MT-6548"	20,649
#3	("randomized controlled trial"[Publication Type] OR "controlled clinical trial"[Publication Type] OR "randomized"[Title/Abstract] OR "placebo"[Title/Abstract] OR "drug therapy"[MeSH Subheading] OR "randomly"[Title/Abstract] OR "trial"[Title/Abstract] OR "groups"[Title/Abstract]) NOT ("animals"[MeSH Terms] NOT "humans"[MeSH Terms])	4,693,454
#4	#1 AND #2 AND #3 Filter: Humans	292

Embase (Ovid)

No.	Search terms	Number of hits
#1	kidney failure/ OR renal replacement therapy/ OR ESRD.mp. OR end stage renal disease.mp. OR end-stage kidney disease.mp. OR ESKD.mp. OR CKD.mp. OR chronic kidney disease.mp. OR kidney disease.mp. OR kidney failure.mp. OR renal failure.mp. OR kidney insufficiency.mp. OR renal disease.mp. OR renal insufficiency.mp. OR renal insufficiencies.mp. OR kidney insufficiencies.mp. OR peritoneal.mp. OR haemodialysis.mp. OR hemodialysis.mp. OR dialysis.mp. OR renal dialysis.mp. OR renal replacement therapy.mp. OR kidney replacement therapy.mp.	893,499
#2	prolyl-hydroxylase inhibitor/ OR hypoxia-inducible factor 1/ OR HIF PHI.mp. OR HIF-PHI.mp. OR hypoxia-inducible factor prolyl hydroxylase inhibitor.mp. OR hypoxia-inducible factor prolyl hydroxylase inhibitors.mp. OR Hypoxia-Inducible Factor 1 alpha Subunit.mp. OR prolyl hydroxylase inhibitor.mp. OR prolyl hydroxylase inhibitors.mp. OR proline dioxygenase inhibitor.mp. OR proline dioxygenase inhibitors.mp. OR hypoxia induced factor.mp. OR hypoxia induced factors.mp. OR HIF1 alpha.mp. OR hypoxia-inducible factor stabilizer.mp. OR HIF stabilizer.mp. OR HIF stabiliser.mp. OR Daprodustat.mp. OR Desidustat.mp. OR Enarodustat.mp. OR Molidustat.mp. OR Roxadustat.mp. OR Vadadustat.mp. OR GSK1278863.mp. OR Duvroq.mp. OR evrenzo.mp. OR AKOS037515648.mp. OR ZYAN1.mp. OR Y962PQA4KS.mp. OR JTZ-951.mp. OR Enaroy.mp. OR BAY 85-3934.mp. OR FG-4592.mp. OR FG4592.mp. OR ASP1517.mp. OR AZD9941.mp. OR AKB-6548.mp. OR MT-6548.mp.	12,688
#3	(Randomized controlled trial/ or Controlled clinical study/ or random\$.ti,ab. or randomization/ or intermethod comparison/ or placebo.ti,ab. or (compare or compared or comparison).ti. or ((evaluated or evaluate or evaluating or assessed or assess) and (compare or compared or comparing or comparison)).ab. or (open adj label).ti,ab. or ((double or single or doubly or singly) adj (blind or blinded or blindly)).ti,ab. or double blind procedure/ or parallel group\$1.ti,ab. or (crossover or cross over).ti,ab. or ((assign\$ or match or matched or allocation) adj5 (alternate or group\$1 or intervention\$1 or patient\$1 or subject\$1 or participant\$1)).ti,ab. or (assigned or allocated).ti,ab. or (controlled adj7 (study or design or trial)).ti,ab. or (volunteer or volunteers).ti,ab. or human experiment/ or trial.ti.) not (((random\$ adj sampl\$ adj7 ("cross section\$" or questionnaire\$1 or survey\$ or database\$1)).ti,ab. not (comparative study/ or controlled study/ or randomi?ed controlled.ti,ab. or randomly assigned.ti,ab.)) or (Cross-sectional study/ not (randomized controlled trial/ or controlled clinical study/ or controlled study/ or randomi?ed controlled.ti,ab. or control group\$1.ti,ab.)) or (((case adj control\$) and random\$) not randomi?ed controlled).ti,ab. or (Systematic review not (trial or study)).ti. or (nonrandom\$ not random\$).ti,ab. or "Random field\$.ti,ab. or (random cluster adj3 sampl\$).ti,ab. or ((review.ab. and review.pt.) not trial.ti.) or ("we searched".ab. and (review.ti. or review.pt.)) or "update review".ab. or (databases adj4 searched).ab. or ((rat or rats or mouse or mice or swine or porcine or murine or sheep or lambs or pigs or piglets or rabbit or rabbits or cat or cats or dog or dogs or cattle or bovine or monkey or monkeys or trout	5,073,030

	or marmoset\$1).ti. and animal experiment/) or (Animal experiment/ not (human experiment/ or human/)))	
#4	#1 AND #2 AND #3	293

CINAHL with full text (EBSCOhost)

No.	Search terms	Number of hits
#1	MH Renal Insufficiency OR MH Renal Replacement Therapy OR TX "ESRD" OR TX "end-stage renal disease" OR TX "end-stage kidney disease" OR TX "ESKD" OR TX "CKD" OR TX "chronic kidney disease" OR TX "Kidney disease" OR TX "kidney failure" OR TX "renal failure" OR TX "kidney insufficiency" OR TX "Renal Disease" OR TX "renal insufficiency" OR TX "renal insufficiencies" OR TX "kidney insufficiencies" OR TX peritoneal OR TX haemodialys* OR TX Hemodialys* OR TX dialys* OR TX "renal dialysis" OR TX "renal replacement therapy" OR TX "kidney replacement therapy"	142,090
#2	TX "Prolyl-Hydroxylase Inhibitors" OR TX "Hypoxia-Inducible Factor 1" OR TX "HIF PHI" OR TX "HIF-PHI" OR TX "Hypoxia-inducible factor prolyl hydroxylase inhibitor*" OR TX "Hypoxia-Inducible Factor 1, alpha Subunit" OR TX "prolyl hydroxylase inhibitor*" OR TX "proline dioxygenase inhibitor*" OR TX "hypoxia induced factor*" OR TX "HIF1- α " OR TX "hypoxia-inducible factor stabilizer" OR TX "HIF stabilizer" OR TX "HIF stabiliser" OR TX Daprodustat OR TX Desidustat OR TX Enarodustat OR TX Molidustat OR TX Roxadustat OR TX Vadadustat OR TX GSK1278863 OR TX Duvroq OR TX evrenzo OR TX AKOS037515648 OR TX ZYAN1 OR TX Y962PQA4KS OR TX "JTZ-951" OR TX Enaroy OR TX "BAY 85-3934" OR TX "Evrenzo" OR TX "FG-4592" OR TX FG4592 OR TX ASP1517 OR TX AZD9941 OR TX "AKB-6548" OR TX "MT-6548"	727
#3	(MH randomized controlled trials OR MH double-blind studies OR MH single-blind studies OR MH random assignment OR MH pretest-posttest design OR MH cluster sample OR TI (randomised OR randomized) OR AB (random*) OR TI (trial) OR (MH (sample size) AND AB (assigned OR allocated OR control)) OR MH (placebos) OR PT (randomized controlled trial) OR AB (control W5 group) OR MH (crossover design) OR MH (comparative studies) OR AB (cluster W3 RCT)) NOT ((MH animals+ NOT MH human) OR (MH (animal studies) NOT MH (human)) OR (TI (animal model) NOT MH (human)))	901,724
#4	#1 AND #2 AND #3	38

Cochrane Library - Cochrane Central Register of Controlled Trials

No.	Search terms	Number of hits
#1	exp "Renal Insufficiency"/ or exp "Renal Replacement Therapy"/ or ESRD.mp. or "end-stage renal disease".mp. or "end-stage kidney disease".mp. or ESKD.mp. or CKD.mp. or "chronic kidney disease".mp. or "Kidney disease".mp. or "kidney failure".mp. or "renal failure".mp. or "kidney insufficiency".mp. or "renal disease".mp. or "renal insufficiency".mp. or "renal insufficiencies".mp. or "kidney insufficiencies".mp. or peritoneal.mp. or haemodialys*.mp. or Hemodialys*.mp. or dialys*.mp. or "renal dialysis".mp. or "renal replacement therapy".mp. or "kidney replacement therapy".mp. [mp=title, original title, abstract, mesh headings, heading words, keyword]	54626
#2	exp "Prolyl-Hydroxylase Inhibitors"/ or exp "Hypoxia-Inducible Factor 1"/ or "HIF PHI".mp. or "HIF-PHI".mp. or "Hypoxia-inducible factor prolyl hydroxylase inhibitor*".mp. or "Hypoxia-Inducible Factor 1, alpha Subunit".mp. or "prolyl hydroxylase inhibitor*".mp. or "proline dioxygenase inhibitor*".mp. or "hypoxia induced factor*".mp. or "hypoxia-inducible factor stabilizer".mp. or "HIF stabilizer".mp. or "HIF stabiliser".mp. or Daprodustat.mp. or Desidustat.mp. or Enarodustat.mp. or Molidustat.mp. or Roxadustat.mp. or Vadadustat.mp. or GSK1278863.mp. or Duvroq.mp. or evrenzo.mp. or AKOS037515648.mp. or ZYAN1.mp. or Y962PQA4KS.mp. or JTZ-951.mp. or Enaroy.mp. or "BAY 85-3934".mp. or FG-4592.mp. or FG4592.mp. or ASP1517.mp. or AZD9941.mp. or "AKB-6548".mp. or "MT-6548".mp. [mp=title, original title, abstract, mesh headings, heading words, keyword]	452
#3	(("randomized controlled trial" or "controlled clinical trial").pt. or randomized.tw. or placebo.tw. or "drug therapy".fs. or randomly.tw. or trial.tw. or groups.tw.) not (exp animals/ not "humans[MeSH Terms]".mp.) [mp=title, original title, abstract, mesh headings, heading words, keyword]	811795
#4	#1 AND #2 AND #3	213

Total number of hits = 836

Duplicates = 111

Studies for title/abstract screening = 725