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| National Institute for Health and Care Excellence |

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| RRT, transplant and conservative management |

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| NICE guideline: search strategies |

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| NICE guideline <number> |

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| Search strategies |

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| April 2018 |

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| Draft for Consultation |
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| This guideline was developed by the National Guideline Centre |

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| RRT: DRAFT FOR CONSULTATION |
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| DisclaimerThe recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or service users. The recommendations in this guideline are not mandatory and the guideline does not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and, where appropriate, their carer or guardian.Local commissioners and providers have a responsibility to enable the guideline to be applied when individual health professionals and their patients or service users wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with compliance with those duties.NICE guidelines cover health and care in England. Decisions on how they apply in other UK countries are made by ministers in the [Welsh Government](http://wales.gov.uk/), [Scottish Government](http://www.scotland.gov.uk/), and [Northern Ireland Executive](http://www.northernireland.gov.uk/). All NICE guidance is subject to regular review and may be updated or withdrawn. |
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1. Search Strategy 1

This literature search strategy was used for the following reviews;

* Co-ordinating care
	1. Clinical search literature search strategy

The literature searches for this review are detailed below and complied with the methodology outlined in Developing NICE guidelines: the manual 2014, updated 2017 <https://www.nice.org.uk/guidance/pmg20/resources/developing-nice-guidelines-the-manual-pdf-72286708700869>

*For more detailed information, please see the Methodology Review*. [Add cross reference]

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 1: Database date parameters and filters used**

| **Database** | **Dates searched** | **Search filter used** |
| --- | --- | --- |
| Medline (OVID) | 1946 – 11 December 2017   | ExclusionsRandomised controlled trials Systematic review studiesObservational studies |
| Embase (OVID) | 1974 – 11 December 2017 | ExclusionsRandomised controlled trials Systematic review studiesObservational studies |
| The Cochrane Library (Wiley) | Cochrane Reviews to 2017 Issue 12 of12CENTRAL to 2017 Issue 11 of12DARE, and NHSEED to 2015 Issue 2 of 4HTA to 2016 Issue 4 of 4 | None |
| HMIC, Health Management Information Consortium (OVID) | 1979 – 11 December 2017 | Exclusions |

1. Line 81 (Medline) and line 75 (Embase) were added to the search strategy to reduce the number of items retrieved for observational studies as the overall results from the search were very large.

This was checked to ensure that relevant studies were not excluded.

**Medline (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp Renal Replacement Therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter/ |
|  | editorial/ |
|  | news/ |
|  | exp historical article/ |
|  | Anecdotes as Topic/ |
|  | comment/ |
|  | case report/ |
|  | (letter or comment\*).ti. |
|  | or/11-18 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 19 not 20 |
|  | animals/ not humans/ |
|  | Animals, Laboratory/ |
|  | exp animal experiment/ |
|  | exp animal model/ |
|  | exp Rodentia/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/21-27 |
|  | 10 not 28 |
|  | randomized controlled trial.pt. |
|  | controlled clinical trial.pt. |
|  | randomi#ed.ti,ab. |
|  | placebo.ab. |
|  | drug therapy.fs. |
|  | randomly.ti,ab. |
|  | trial.ab. |
|  | groups.ab. |
|  | or/30-37 |
|  | Clinical Trials as topic.sh. |
|  | trial.ti. |
|  | or/30-33,35,39-40 |
|  | Meta-Analysis/ |
|  | Meta-Analysis as Topic/ |
|  | (meta analy\* or metanaly\* or metaanaly\* or meta regression).ti,ab. |
|  | ((systematic\* or evidence\*) adj3 (review\* or overview\*)).ti,ab. |
|  | (reference list\* or bibliograph\* or hand search\* or manual search\* or relevant journals).ab. |
|  | (search strategy or search criteria or systematic search or study selection or data extraction).ab. |
|  | (search\* adj4 literature).ab. |
|  | (medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab. |
|  | cochrane.jw. |
|  | ((multiple treatment\* or indirect or mixed) adj2 comparison\*).ti,ab. |
|  | or/42-51 |
|  | 29 and (41 or 52) |
|  | exp Renal Replacement Therapy/ |
|  | ((renal or kidney\*) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or haemofilt\* or hemofilt\*).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal or pre-empt\* or preempt\*) adj3 (transplant\* or graft\*)).ti,ab. |
|  | (capd or apd or ccpd or dialys\*).ti,ab. |
|  | or/54-59 |
|  | letter/ |
|  | editorial/ |
|  | news/ |
|  | exp historical article/ |
|  | Anecdotes as Topic/ |
|  | comment/ |
|  | case report/ |
|  | (letter or comment\*).ti. |
|  | or/61-68 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 147 not 148 |
|  | animals/ not humans/ |
|  | Animals, Laboratory/ |
|  | exp Animal Experimentation/ |
|  | exp Models, Animal/ |
|  | exp Rodentia/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/72-77 |
|  | 60 not 78 |
|  | limit 79 to English language |
|  | (mycophenolic acid or azathioprine or sirolimus or everolimus or tacrolimus or cyclosporin\* or steroid or calcineurin inhibitor or anaemi\* or anemi\* or vitamin d or immunosuppres\*).ti.1 |
|  | 80 not 81 |
|  | Epidemiologic studies/ |
|  | Observational study/ |
|  | exp Cohort studies/ |
|  | (cohort adj (study or studies or analys\* or data)).ti,ab. |
|  | ((follow up or observational or uncontrolled or non randomi#ed or epidemiologic\*) adj (study or studies or data)).ti,ab. |
|  | ((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys\* or cohort\* or data)).ti,ab. |
|  | Controlled Before-After Studies/ |
|  | Historically Controlled Study/ |
|  | Interrupted Time Series Analysis/ |
|  | (before adj2 after adj2 (study or studies or data)).ti,ab. |
|  | or/83-92 |
|  | Registries/ |
|  | Management Audit/ or Clinical Audit/ or Nursing Audit/ or Medical Audit/ |
|  | (registry or registries).ti,ab. |
|  | (audit or audits or auditor or auditors or auditing or auditable).ti,ab. |
|  | or/94-97 |
|  | 93 or 98 |
|  | 82 and 99 |
|  | 100 not 53 |
|  | 53 or 101 |

**Embase (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp \*renal replacement therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter.pt. or letter/ |
|  | note.pt. |
|  | editorial.pt. |
|  | case report/ or case study/ |
|  | (letter or comment\*).ti. |
|  | or/11-15 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 16 not 17 |
|  | animal/ not human/ |
|  | nonhuman/ |
|  | exp Animal Experiment/ |
|  | exp Experimental Animal/ |
|  | animal model/ |
|  | exp Rodent/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/18-25 |
|  | 10 not 26 |
|  | random\*.ti,ab. |
|  | factorial\*.ti,ab. |
|  | (crossover\* or cross over\*).ti,ab. |
|  | ((doubl\* or singl\*) adj blind\*).ti,ab. |
|  | (assign\* or allocat\* or volunteer\* or placebo\*).ti,ab. |
|  | crossover procedure/ |
|  | single blind procedure/ |
|  | randomized controlled trial/ |
|  | double blind procedure/ |
|  | or/28-36 |
|  | systematic review/ |
|  | meta-analysis/ |
|  | (meta analy\* or metanaly\* or metaanaly\* or meta regression).ti,ab. |
|  | ((systematic or evidence) adj3 (review\* or overview\*)).ti,ab. |
|  | (reference list\* or bibliograph\* or hand search\* or manual search\* or relevant journals).ab. |
|  | (search strategy or search criteria or systematic search or study selection or data extraction).ab. |
|  | (search\* adj4 literature).ab. |
|  | (medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab. |
|  | cochrane.jw. |
|  | ((multiple treatment\* or indirect or mixed) adj2 comparison\*).ti,ab. |
|  | or/38-47 |
|  | 27 and (37 or 48) |
|  | \*renal replacement therapy/ |
|  | ((renal or kidney\*) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or haemofilt\* or hemofilt\*).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal or pre-empt\* or preempt\*) adj3 (transplant\* or graft\*)).ti,ab. |
|  | (capd or apd or ccpd or dialys\*).ti,ab. |
|  | or/50-55 |
|  | letter.pt. or letter/ |
|  | note.pt. |
|  | editorial.pt. |
|  | case report/ or case study/ |
|  | (letter or comment\*).ti. |
|  | or/57-61 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 62 not 63 |
|  | animal/ not human/ |
|  | nonhuman/ |
|  | exp Animal Experiment/ |
|  | exp Experimental Animal/ |
|  | animal model/ |
|  | exp Rodent/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/64-71 |
|  | 56 not 72 |
|  | limit 73 to English language |
|  | (mycophenolic acid or azathioprine or sirolimus or everolimus or tacrolimus or cyclosporin\* or steroid or calcineurin inhibitor or anaemi\* or anemi\* or vitamin d or immunosuppres\*).ti.1 |
|  | 74 not 75 |
|  | Clinical study/ |
|  | Observational study/ |
|  | family study/ |
|  | longitudinal study/ |
|  | retrospective study/ |
|  | prospective study/ |
|  | cohort analysis/ |
|  | follow-up/ |
|  | cohort\*.ti,ab. |
|  | 84 and 85 |
|  | (cohort adj (study or studies or analys\* or data)).ti,ab. |
|  | ((follow up or observational or uncontrolled or non randomi#ed or epidemiologic\*) adj (study or studies or data)).ti,ab. |
|  | ((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys\* or cohort\* or data)).ti,ab. |
|  | (before adj2 after adj2 (study or studies or data)).ti,ab. |
|  | or/77-83,86-90 |
|  | register/ |
|  | medical audit/ |
|  | (registry or registries).ti,ab. |
|  | (audit or audits or auditor or auditors or auditing or auditable).ti,ab. |
|  | or/92-95 |
|  | 91 or 96 |
|  | 76 and 97 |
|  | 98 not 49 |
|  | 49 or 99 |

**Cochrane Library (Wiley) search terms**

|  |  |
| --- | --- |
|  | MeSH descriptor: [Renal Replacement Therapy] explode all trees |
|  | ((renal or kidney\*) near/2 replace\*):ti,ab  |
|  | (hemodiafilt\* or haemodiafilt\* or haemofilt\* or hemofilt\*):ti,ab  |
|  | (hemodialys\* or haemodialys\*):ti,ab  |
|  | ((kidney\* or renal or pre-empt\* or preempt\*) near/3 (transplant\* or graft\*)):ti,ab  |
|  | (capd or apd or ccpd or dialys\*):ti,ab  |
|  | (biofilt\* near/1 acetate-free):ti,ab  |
|  | (artificial near/1 kidney\*):ti,ab  |
|  | (or #1-#8)  |

**HMIC (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp Kidney diseases/ or exp Haemodialysis/ or exp Renal services/ or exp Kidney transplants/ or Kidney Transplantation units/ |
|  | exp Kidneys/ or exp Artificial kidneys/ |
|  | exp Peritoneal dialysis/ or exp Continuous ambulatory peritoneal dialysis/ or Haemodialysis/ or Haemodialysis Units/ |
|  | exp Renal nursing/ or exp Renal treatment/ or exp Renal units/ |
|  | ((renal or kidney\*) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or haemofilt\* or hemofilt\*).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal or pre-empt\* or preempt\*) adj3 (transplant\* or graft\*)).ti,ab. |
|  | (capd or apd or ccpd or dialys\*).ti,ab. |
|  | or/1-9 |
|  | (mycophenolic acid or azathioprine or sirolimus or everolimus or tacrolimus or cyclosporin\* or steroid or calcineurin inhibitor or anaemi\* or anemi\* or vitamin d or immunosuppres\*).ti. |
|  | 10 not 11 |
|  | limit 12 to English |
|  | animals/ not humans/ |
|  | (rat or rats or mouse or mice).ti. |
|  | 14 or 15 |
|  | 13 not 16 |
|  | limit 17 to (audiovis or book or chapter dh helmis or circular or microfiche dh helmis or multimedias or website) |
|  | limit 17 to (audiocass or books or cdrom or chapter or dept pubs or diskettes or folio pamp or "map" or marc or microfiche or multimedia or pamphlet or parly or press or press rel or thesis or trustdoc or video or website) |
|  | 18 or 19 |
|  | 17 not 20 |

* 1. Health Economics literature search strategy

Health economic evidence was identified by conducting a broad search relating to renal replacement therapy population in NHS Economic Evaluation Database (NHS EED – this ceased to be updated after March 2015) and the Health Technology Assessment database (HTA) with no date restrictions. NHS EED and HTA databases are hosted by the Centre for Research and Dissemination (CRD). Additional searches were run on Medline and Embase for health economics.

**Table 2: Database date parameters and filters used**

| **Database** | **Dates searched**  | **Search filter used** |
| --- | --- | --- |
| Medline & Embase | 2014 – 11 December 2017 | ExclusionsHealth economics studies |
| Centre for Research and Dissemination (CRD) | HTA & NHS EED- Inception – 11 December 2017 | None |

**Medline (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp Renal Replacement Therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter/ |
|  | editorial/ |
|  | news/ |
|  | exp historical article/ |
|  | Anecdotes as Topic/ |
|  | comment/ |
|  | case report/ |
|  | (letter or comment\*).ti. |
|  | or/11-18 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 19 not 20 |
|  | animals/ not humans/ |
|  | Animals, Laboratory/ |
|  | exp animal experiment/ |
|  | exp animal model/ |
|  | exp Rodentia/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/21-27 |
|  | 10 not 28 |
|  | Economics/ |
|  | Value of life/ |
|  | exp "Costs and Cost Analysis"/ |
|  | exp Economics, Hospital/ |
|  | exp Economics, Medical/ |
|  | Economics, Nursing/ |
|  | Economics, Pharmaceutical/ |
|  | exp "Fees and Charges"/ |
|  | exp Budgets/ |
|  | budget\*.ti,ab. |
|  | cost\*.ti. |
|  | (economic\* or pharmaco?economic\*).ti. |
|  | (price\* or pricing\*).ti,ab. |
|  | (cost\* adj2 (effective\* or utilit\* or benefit\* or minimi\* or unit\* or estimat\* or variable\*)).ab. |
|  | (financ\* or fee or fees).ti,ab. |
|  | (value adj2 (money or monetary)).ti,ab. |
|  | or/30-45 |
|  | 29 and 46 |

**Embase (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp renal replacement therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter.pt. or letter/ |
|  | note.pt. |
|  | editorial.pt. |
|  | case report/ or case study/ |
|  | (letter or comment\*).ti. |
|  | or/11-15 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 16 not 17 |
|  | animal/ not human/ |
|  | nonhuman/ |
|  | exp Animal Experiment/ |
|  | exp Experimental Animal/ |
|  | animal model/ |
|  | exp Rodent/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/18-25 |
|  | 10 not 26 |
|  | \*health economics/ |
|  | exp \*economic evaluation/ |
|  | exp \*health care cost/ |
|  | exp \*fee/ |
|  | budget/ |
|  | funding/ |
|  | budget\*.ti,ab. |
|  | cost\*.ti. |
|  | (economic\* or pharmaco?economic\*).ti. |
|  | (price\* or pricing\*).ti,ab. |
|  | (cost\* adj2 (effective\* or utilit\* or benefit\* or minimi\* or unit\* or estimat\* or variable\*)).ab. |
|  | (financ\* or fee or fees).ti,ab. |
|  | (value adj2 (money or monetary)).ti,ab. |
|  | or/28-40 |
|  | 27 and 41 |

**NHS EED and HTA (CRD) search terms**

|  |  |
| --- | --- |
|  | MeSH DESCRIPTOR Renal Replacement Therapy EXPLODE ALL TREES |
|  | (((renal or kidney) adj2 replace\*)) |
|  | ((hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free))) |
|  | ((hemodialys\* or haemodialys\*)) |
|  | (((kidney\* or renal) adj3 (transplant\* or graft\*))) |
|  | (capd) |
|  | (dialys\*) |
|  | ((artificial adj1 kidney\*)) |
|  | #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 |

1. Search Strategy 2

This literature search strategy was used for the following reviews;

* Dietary management and fluid restriction
* Initiating RRT
	1. Clinical search literature search strategy

The literature searches for this review are detailed below and complied with the methodology outlined in Developing NICE guidelines: the manual 2014, updated 2017 <https://www.nice.org.uk/guidance/pmg20/resources/developing-nice-guidelines-the-manual-pdf-72286708700869>

*For more detailed information, please see the Methodology Review*. [Add cross reference]

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 1: Database date parameters and filters used**

| **Database** | **Dates searched** | **Search filter used** |
| --- | --- | --- |
| Medline (OVID) | 1946 – 11 December 2017   | ExclusionsRandomised controlled trials Systematic review studies |
| Embase (OVID) | 1974 – 11 December 2017 | ExclusionsRandomised controlled trials Systematic review studies |
| The Cochrane Library (Wiley) | Cochrane Reviews to 2017 Issue 12 of12CENTRAL to 2017 Issue 11 of12DARE, and NHSEED to 2015 Issue 2 of 4HTA to 2016 Issue 4 of 4 | None |

**Medline (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp Renal Replacement Therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter/ |
|  | editorial/ |
|  | news/ |
|  | exp historical article/ |
|  | Anecdotes as Topic/ |
|  | comment/ |
|  | case report/ |
|  | (letter or comment\*).ti. |
|  | or/11-18 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 19 not 20 |
|  | animals/ not humans/ |
|  | Animals, Laboratory/ |
|  | exp animal experiment/ |
|  | exp animal model/ |
|  | exp Rodentia/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/21-27 |
|  | 10 not 28 |
|  | randomized controlled trial.pt. |
|  | controlled clinical trial.pt. |
|  | randomi#ed.ti,ab. |
|  | placebo.ab. |
|  | drug therapy.fs. |
|  | randomly.ti,ab. |
|  | trial.ab. |
|  | groups.ab. |
|  | or/30-37 |
|  | Clinical Trials as topic.sh. |
|  | trial.ti. |
|  | or/30-33,35,39-40 |
|  | Meta-Analysis/ |
|  | Meta-Analysis as Topic/ |
|  | (meta analy\* or metanaly\* or metaanaly\* or meta regression).ti,ab. |
|  | ((systematic\* or evidence\*) adj3 (review\* or overview\*)).ti,ab. |
|  | (reference list\* or bibliograph\* or hand search\* or manual search\* or relevant journals).ab. |
|  | (search strategy or search criteria or systematic search or study selection or data extraction).ab. |
|  | (search\* adj4 literature).ab. |
|  | (medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab. |
|  | cochrane.jw. |
|  | ((multiple treatment\* or indirect or mixed) adj2 comparison\*).ti,ab. |
|  | or/42-51 |
|  | 29 and (41 or 52) |

**Embase (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp \*renal replacement therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter.pt. or letter/ |
|  | note.pt. |
|  | editorial.pt. |
|  | case report/ or case study/ |
|  | (letter or comment\*).ti. |
|  | or/11-15 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 16 not 17 |
|  | animal/ not human/ |
|  | nonhuman/ |
|  | exp Animal Experiment/ |
|  | exp Experimental Animal/ |
|  | animal model/ |
|  | exp Rodent/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/18-25 |
|  | 10 not 26 |
|  | random\*.ti,ab. |
|  | factorial\*.ti,ab. |
|  | (crossover\* or cross over\*).ti,ab. |
|  | ((doubl\* or singl\*) adj blind\*).ti,ab. |
|  | (assign\* or allocat\* or volunteer\* or placebo\*).ti,ab. |
|  | crossover procedure/ |
|  | single blind procedure/ |
|  | randomized controlled trial/ |
|  | double blind procedure/ |
|  | or/28-36 |
|  | systematic review/ |
|  | meta-analysis/ |
|  | (meta analy\* or metanaly\* or metaanaly\* or meta regression).ti,ab. |
|  | ((systematic or evidence) adj3 (review\* or overview\*)).ti,ab. |
|  | (reference list\* or bibliograph\* or hand search\* or manual search\* or relevant journals).ab. |
|  | (search strategy or search criteria or systematic search or study selection or data extraction).ab. |
|  | (search\* adj4 literature).ab. |
|  | (medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab. |
|  | cochrane.jw. |
|  | ((multiple treatment\* or indirect or mixed) adj2 comparison\*).ti,ab. |
|  | or/38-47 |
|  | 27 and (37 or 48) |

**Cochrane Library (Wiley) search terms**

|  |  |
| --- | --- |
|  | MeSH descriptor: [Renal Replacement Therapy] explode all trees |
|  | ((renal or kidney\*) near/2 replace\*):ti,ab  |
|  | (hemodiafilt\* or haemodiafilt\* or haemofilt\* or hemofilt\*):ti,ab  |
|  | (hemodialys\* or haemodialys\*):ti,ab  |
|  | ((kidney\* or renal or pre-empt\* or preempt\*) near/3 (transplant\* or graft\*)):ti,ab  |
|  | (capd or apd or ccpd or dialys\*):ti,ab  |
|  | (biofilt\* near/1 acetate-free):ti,ab  |
|  | (artificial near/1 kidney\*):ti,ab  |
|  | (or #1-#8)  |

* 1. Health Economics literature search strategy

Health economic evidence was identified by conducting a broad search relating to renal replacement therapy population in NHS Economic Evaluation Database (NHS EED – this ceased to be updated after March 2015) and the Health Technology Assessment database (HTA) with no date restrictions. NHS EED and HTA databases are hosted by the Centre for Research and Dissemination (CRD). Additional searches were run on Medline and Embase for health economics.

**Table 2: Database date parameters and filters used**

| **Database** | **Dates searched**  | **Search filter used** |
| --- | --- | --- |
| Medline & Embase | 2014 – 11 December 2017 | ExclusionsHealth economics studies |
| Centre for Research and Dissemination (CRD) | HTA & NHS EED- Inception – 11 December 2017 | None |

**Medline (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp Renal Replacement Therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter/ |
|  | editorial/ |
|  | news/ |
|  | exp historical article/ |
|  | Anecdotes as Topic/ |
|  | comment/ |
|  | case report/ |
|  | (letter or comment\*).ti. |
|  | or/11-18 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 19 not 20 |
|  | animals/ not humans/ |
|  | Animals, Laboratory/ |
|  | exp animal experiment/ |
|  | exp animal model/ |
|  | exp Rodentia/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/21-27 |
|  | 10 not 28 |
|  | Economics/ |
|  | Value of life/ |
|  | exp "Costs and Cost Analysis"/ |
|  | exp Economics, Hospital/ |
|  | exp Economics, Medical/ |
|  | Economics, Nursing/ |
|  | Economics, Pharmaceutical/ |
|  | exp "Fees and Charges"/ |
|  | exp Budgets/ |
|  | budget\*.ti,ab. |
|  | cost\*.ti. |
|  | (economic\* or pharmaco?economic\*).ti. |
|  | (price\* or pricing\*).ti,ab. |
|  | (cost\* adj2 (effective\* or utilit\* or benefit\* or minimi\* or unit\* or estimat\* or variable\*)).ab. |
|  | (financ\* or fee or fees).ti,ab. |
|  | (value adj2 (money or monetary)).ti,ab. |
|  | or/30-45 |
|  | 29 and 46 |

**Embase (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp renal replacement therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter.pt. or letter/ |
|  | note.pt. |
|  | editorial.pt. |
|  | case report/ or case study/ |
|  | (letter or comment\*).ti. |
|  | or/11-15 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 16 not 17 |
|  | animal/ not human/ |
|  | nonhuman/ |
|  | exp Animal Experiment/ |
|  | exp Experimental Animal/ |
|  | animal model/ |
|  | exp Rodent/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/18-25 |
|  | 10 not 26 |
|  | \*health economics/ |
|  | exp \*economic evaluation/ |
|  | exp \*health care cost/ |
|  | exp \*fee/ |
|  | budget/ |
|  | funding/ |
|  | budget\*.ti,ab. |
|  | cost\*.ti. |
|  | (economic\* or pharmaco?economic\*).ti. |
|  | (price\* or pricing\*).ti,ab. |
|  | (cost\* adj2 (effective\* or utilit\* or benefit\* or minimi\* or unit\* or estimat\* or variable\*)).ab. |
|  | (financ\* or fee or fees).ti,ab. |
|  | (value adj2 (money or monetary)).ti,ab. |
|  | or/28-40 |
|  | 27 and 41 |

**NHS EED and HTA (CRD) search terms**

|  |  |
| --- | --- |
|  | MeSH DESCRIPTOR Renal Replacement Therapy EXPLODE ALL TREES |
|  | (((renal or kidney) adj2 replace\*)) |
|  | ((hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free))) |
|  | ((hemodialys\* or haemodialys\*)) |
|  | (((kidney\* or renal) adj3 (transplant\* or graft\*))) |
|  | (capd) |
|  | (dialys\*) |
|  | ((artificial adj1 kidney\*)) |
|  | #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 |

1. Search Strategy 3

This literature search strategy was used for the following reviews;

* Assessment for RRT
* Decision support interventions
* Frequency of review
* How to assess people for RRT
* Indicators for transferring/discontinuing RRT
* Planning dialysis access formation, transplant listing
* Sequencing modalities of RRT
	1. Clinical search literature search strategy

The literature searches for this review are detailed below and complied with the methodology outlined in Developing NICE guidelines: the manual 2014, updated 2017 <https://www.nice.org.uk/guidance/pmg20/resources/developing-nice-guidelines-the-manual-pdf-72286708700869>

*For more detailed information, please see the Methodology Review*. [Add cross reference]

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 1: Database date parameters and filters used**

| **Database** | **Dates searched** | **Search filter used** |
| --- | --- | --- |
| Medline (OVID) | 1946 – 11 December 2017   | ExclusionsRandomised controlled trials Systematic review studiesObservational studies |
| Embase (OVID) | 1974 – 11 December 2017 | ExclusionsRandomised controlled trials Systematic review studiesObservational studies |
| The Cochrane Library (Wiley) | Cochrane Reviews to 2017 Issue 12 of12CENTRAL to 2017 Issue 11 of12DARE, and NHSEED to 2015 Issue 2 of 4HTA to 2016 Issue 4 of 4 | None |

1. Line 81 (Medline) and line 75 (Embase) were added to the search strategy to reduce the number of items retrieved for observational studies as the overall results from the search were very large.

This was checked to ensure that relevant studies were not excluded.

**Medline (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp Renal Replacement Therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter/ |
|  | editorial/ |
|  | news/ |
|  | exp historical article/ |
|  | Anecdotes as Topic/ |
|  | comment/ |
|  | case report/ |
|  | (letter or comment\*).ti. |
|  | or/11-18 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 19 not 20 |
|  | animals/ not humans/ |
|  | Animals, Laboratory/ |
|  | exp animal experiment/ |
|  | exp animal model/ |
|  | exp Rodentia/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/21-27 |
|  | 10 not 28 |
|  | randomized controlled trial.pt. |
|  | controlled clinical trial.pt. |
|  | randomi#ed.ti,ab. |
|  | placebo.ab. |
|  | drug therapy.fs. |
|  | randomly.ti,ab. |
|  | trial.ab. |
|  | groups.ab. |
|  | or/30-37 |
|  | Clinical Trials as topic.sh. |
|  | trial.ti. |
|  | or/30-33,35,39-40 |
|  | Meta-Analysis/ |
|  | Meta-Analysis as Topic/ |
|  | (meta analy\* or metanaly\* or metaanaly\* or meta regression).ti,ab. |
|  | ((systematic\* or evidence\*) adj3 (review\* or overview\*)).ti,ab. |
|  | (reference list\* or bibliograph\* or hand search\* or manual search\* or relevant journals).ab. |
|  | (search strategy or search criteria or systematic search or study selection or data extraction).ab. |
|  | (search\* adj4 literature).ab. |
|  | (medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab. |
|  | cochrane.jw. |
|  | ((multiple treatment\* or indirect or mixed) adj2 comparison\*).ti,ab. |
|  | or/42-51 |
|  | 29 and (41 or 52) |
|  | exp Renal Replacement Therapy/ |
|  | ((renal or kidney\*) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or haemofilt\* or hemofilt\*).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal or pre-empt\* or preempt\*) adj3 (transplant\* or graft\*)).ti,ab. |
|  | (capd or apd or ccpd or dialys\*).ti,ab. |
|  | or/54-59 |
|  | letter/ |
|  | editorial/ |
|  | news/ |
|  | exp historical article/ |
|  | Anecdotes as Topic/ |
|  | comment/ |
|  | case report/ |
|  | (letter or comment\*).ti. |
|  | or/61-68 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 147 not 148 |
|  | animals/ not humans/ |
|  | Animals, Laboratory/ |
|  | exp Animal Experimentation/ |
|  | exp Models, Animal/ |
|  | exp Rodentia/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/72-77 |
|  | 60 not 78 |
|  | limit 79 to English language |
|  | (mycophenolic acid or azathioprine or sirolimus or everolimus or tacrolimus or cyclosporin\* or steroid or calcineurin inhibitor or anaemi\* or anemi\* or vitamin d or immunosuppres\*).ti.1 |
|  | 80 not 81 |
|  | Epidemiologic studies/ |
|  | Observational study/ |
|  | exp Cohort studies/ |
|  | (cohort adj (study or studies or analys\* or data)).ti,ab. |
|  | ((follow up or observational or uncontrolled or non randomi#ed or epidemiologic\*) adj (study or studies or data)).ti,ab. |
|  | ((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys\* or cohort\* or data)).ti,ab. |
|  | Controlled Before-After Studies/ |
|  | Historically Controlled Study/ |
|  | Interrupted Time Series Analysis/ |
|  | (before adj2 after adj2 (study or studies or data)).ti,ab. |
|  | or/83-92 |
|  | Registries/ |
|  | Management Audit/ or Clinical Audit/ or Nursing Audit/ or Medical Audit/ |
|  | (registry or registries).ti,ab. |
|  | (audit or audits or auditor or auditors or auditing or auditable).ti,ab. |
|  | or/94-97 |
|  | 93 or 98 |
|  | 82 and 99 |
|  | 100 not 53 |
|  | 53 or 101 |

**Embase (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp \*renal replacement therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter.pt. or letter/ |
|  | note.pt. |
|  | editorial.pt. |
|  | case report/ or case study/ |
|  | (letter or comment\*).ti. |
|  | or/11-15 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 16 not 17 |
|  | animal/ not human/ |
|  | nonhuman/ |
|  | exp Animal Experiment/ |
|  | exp Experimental Animal/ |
|  | animal model/ |
|  | exp Rodent/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/18-25 |
|  | 10 not 26 |
|  | random\*.ti,ab. |
|  | factorial\*.ti,ab. |
|  | (crossover\* or cross over\*).ti,ab. |
|  | ((doubl\* or singl\*) adj blind\*).ti,ab. |
|  | (assign\* or allocat\* or volunteer\* or placebo\*).ti,ab. |
|  | crossover procedure/ |
|  | single blind procedure/ |
|  | randomized controlled trial/ |
|  | double blind procedure/ |
|  | or/28-36 |
|  | systematic review/ |
|  | meta-analysis/ |
|  | (meta analy\* or metanaly\* or metaanaly\* or meta regression).ti,ab. |
|  | ((systematic or evidence) adj3 (review\* or overview\*)).ti,ab. |
|  | (reference list\* or bibliograph\* or hand search\* or manual search\* or relevant journals).ab. |
|  | (search strategy or search criteria or systematic search or study selection or data extraction).ab. |
|  | (search\* adj4 literature).ab. |
|  | (medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab. |
|  | cochrane.jw. |
|  | ((multiple treatment\* or indirect or mixed) adj2 comparison\*).ti,ab. |
|  | or/38-47 |
|  | 27 and (37 or 48) |
|  | \*renal replacement therapy/ |
|  | ((renal or kidney\*) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or haemofilt\* or hemofilt\*).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal or pre-empt\* or preempt\*) adj3 (transplant\* or graft\*)).ti,ab. |
|  | (capd or apd or ccpd or dialys\*).ti,ab. |
|  | or/50-55 |
|  | letter.pt. or letter/ |
|  | note.pt. |
|  | editorial.pt. |
|  | case report/ or case study/ |
|  | (letter or comment\*).ti. |
|  | or/57-61 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 62 not 63 |
|  | animal/ not human/ |
|  | nonhuman/ |
|  | exp Animal Experiment/ |
|  | exp Experimental Animal/ |
|  | animal model/ |
|  | exp Rodent/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/64-71 |
|  | 56 not 72 |
|  | limit 73 to English language |
|  | (mycophenolic acid or azathioprine or sirolimus or everolimus or tacrolimus or cyclosporin\* or steroid or calcineurin inhibitor or anaemi\* or anemi\* or vitamin d or immunosuppres\*).ti.1 |
|  | 74 not 75 |
|  | Clinical study/ |
|  | Observational study/ |
|  | family study/ |
|  | longitudinal study/ |
|  | retrospective study/ |
|  | prospective study/ |
|  | cohort analysis/ |
|  | follow-up/ |
|  | cohort\*.ti,ab. |
|  | 84 and 85 |
|  | (cohort adj (study or studies or analys\* or data)).ti,ab. |
|  | ((follow up or observational or uncontrolled or non randomi#ed or epidemiologic\*) adj (study or studies or data)).ti,ab. |
|  | ((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys\* or cohort\* or data)).ti,ab. |
|  | (before adj2 after adj2 (study or studies or data)).ti,ab. |
|  | or/77-83,86-90 |
|  | register/ |
|  | medical audit/ |
|  | (registry or registries).ti,ab. |
|  | (audit or audits or auditor or auditors or auditing or auditable).ti,ab. |
|  | or/92-95 |
|  | 91 or 96 |
|  | 76 and 97 |
|  | 98 not 49 |
|  | 49 or 99 |

**Cochrane Library (Wiley) search terms**

|  |  |
| --- | --- |
|  | MeSH descriptor: [Renal Replacement Therapy] explode all trees |
|  | ((renal or kidney\*) near/2 replace\*):ti,ab  |
|  | (hemodiafilt\* or haemodiafilt\* or haemofilt\* or hemofilt\*):ti,ab  |
|  | (hemodialys\* or haemodialys\*):ti,ab  |
|  | ((kidney\* or renal or pre-empt\* or preempt\*) near/3 (transplant\* or graft\*)):ti,ab  |
|  | (capd or apd or ccpd or dialys\*):ti,ab  |
|  | (biofilt\* near/1 acetate-free):ti,ab  |
|  | (artificial near/1 kidney\*):ti,ab  |
|  | (or #1-#8)  |

* 1. Health Economics literature search strategy

Health economic evidence was identified by conducting a broad search relating to renal replacement therapy population in NHS Economic Evaluation Database (NHS EED – this ceased to be updated after March 2015) and the Health Technology Assessment database (HTA) with no date restrictions. NHS EED and HTA databases are hosted by the Centre for Research and Dissemination (CRD). Additional searches were run on Medline and Embase for health economics.

**Table 2: Database date parameters and filters used**

| **Database** | **Dates searched**  | **Search filter used** |
| --- | --- | --- |
| Medline & Embase | 2014 – 11 December 2017 | ExclusionsHealth economics studies |
| Centre for Research and Dissemination (CRD) | HTA & NHS EED- Inception – 11 December 2017 | None |

**Medline (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp Renal Replacement Therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter/ |
|  | editorial/ |
|  | news/ |
|  | exp historical article/ |
|  | Anecdotes as Topic/ |
|  | comment/ |
|  | case report/ |
|  | (letter or comment\*).ti. |
|  | or/11-18 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 19 not 20 |
|  | animals/ not humans/ |
|  | Animals, Laboratory/ |
|  | exp animal experiment/ |
|  | exp animal model/ |
|  | exp Rodentia/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/21-27 |
|  | 10 not 28 |
|  | Economics/ |
|  | Value of life/ |
|  | exp "Costs and Cost Analysis"/ |
|  | exp Economics, Hospital/ |
|  | exp Economics, Medical/ |
|  | Economics, Nursing/ |
|  | Economics, Pharmaceutical/ |
|  | exp "Fees and Charges"/ |
|  | exp Budgets/ |
|  | budget\*.ti,ab. |
|  | cost\*.ti. |
|  | (economic\* or pharmaco?economic\*).ti. |
|  | (price\* or pricing\*).ti,ab. |
|  | (cost\* adj2 (effective\* or utilit\* or benefit\* or minimi\* or unit\* or estimat\* or variable\*)).ab. |
|  | (financ\* or fee or fees).ti,ab. |
|  | (value adj2 (money or monetary)).ti,ab. |
|  | or/30-45 |
|  | 29 and 46 |

**Embase (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp renal replacement therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter.pt. or letter/ |
|  | note.pt. |
|  | editorial.pt. |
|  | case report/ or case study/ |
|  | (letter or comment\*).ti. |
|  | or/11-15 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 16 not 17 |
|  | animal/ not human/ |
|  | nonhuman/ |
|  | exp Animal Experiment/ |
|  | exp Experimental Animal/ |
|  | animal model/ |
|  | exp Rodent/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/18-25 |
|  | 10 not 26 |
|  | \*health economics/ |
|  | exp \*economic evaluation/ |
|  | exp \*health care cost/ |
|  | exp \*fee/ |
|  | budget/ |
|  | funding/ |
|  | budget\*.ti,ab. |
|  | cost\*.ti. |
|  | (economic\* or pharmaco?economic\*).ti. |
|  | (price\* or pricing\*).ti,ab. |
|  | (cost\* adj2 (effective\* or utilit\* or benefit\* or minimi\* or unit\* or estimat\* or variable\*)).ab. |
|  | (financ\* or fee or fees).ti,ab. |
|  | (value adj2 (money or monetary)).ti,ab. |
|  | or/28-40 |
|  | 27 and 41 |

**NHS EED and HTA (CRD) search terms**

|  |  |
| --- | --- |
|  | MeSH DESCRIPTOR Renal Replacement Therapy EXPLODE ALL TREES |
|  | (((renal or kidney) adj2 replace\*)) |
|  | ((hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free))) |
|  | ((hemodialys\* or haemodialys\*)) |
|  | (((kidney\* or renal) adj3 (transplant\* or graft\*))) |
|  | (capd) |
|  | (dialys\*) |
|  | ((artificial adj1 kidney\*)) |
|  | #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 |

1. Search Strategy 4

Renal replacement therapy search strategy 4

This literature search strategy was used for the following reviews;

* Information, education and support

The literature searches for this review are detailed below and complied with the methodology outlined in Developing NICE guidelines: the manual 2014, updated 2017 <https://www.nice.org.uk/guidance/pmg20/resources/developing-nice-guidelines-the-manual-pdf-72286708700869>

*For more detailed information, please see the Methodology Review*. [Add cross reference]

* 1. Clinical search literature search strategy

Searches for patient views were run in Medline (OVID), Embase (OVID), CINAHL, Current Nursing and Allied Health Literature (EBSCO) and PsycINFO (ProQuest). Search filters were applied to the search where appropriate.

**Table 1: Database date parameters and filters used**

| **Database** | **Dates searched** | **Search filter used** |
| --- | --- | --- |
| Medline (OVID) | 1946 – 11 December 2017   | ExclusionsQualitative studies |
| Embase (OVID) | 1974 – 11 December 2017 | ExclusionsQualitative studies |
| CINAHL, Current Nursing and Allied Health Literature (EBSCO) | 1991 – 11 December 2017 | ExclusionsQualitative studies |
| PsycINFO (ProQuest) | 1806 – 11 December 2017 | Qualitative studies |

**Medline (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp Renal Replacement Therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter/ |
|  | editorial/ |
|  | news/ |
|  | exp historical article/ |
|  | Anecdotes as Topic/ |
|  | comment/ |
|  | case report/ |
|  | (letter or comment\*).ti. |
|  | or/11-18 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 19 not 20 |
|  | animals/ not humans/ |
|  | Animals, Laboratory/ |
|  | exp animal experiment/ |
|  | exp animal model/ |
|  | exp Rodentia/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/21-27 |
|  | 10 not 28 |
|  | "patient acceptance of health care"/ or exp patient satisfaction/ |
|  | Patient Education as Topic/ |
|  | ((information\* or advice or advising or advised or support\*) adj3 (patient\* or need\* or requirement\* or assess\* or seek\* or access\* or disseminat\*)).ti,ab. |
|  | (information\* adj2 support\*).ti,ab. |
|  | ((client\* or patient\* or user\* or carer\* or consumer\* or customer\*) adj2 (attitud\* or priorit\* or perception\* or preferen\* or expectation\* or choice\* or perspective\* or view\* or satisfact\* or inform\* or experience or experiences or opinion\*)).ti,ab. |
|  | or/30-34 |
|  | Qualitative research/ or Narration/ or exp Interviews as Topic/ or exp "Surveys and Questionnaires"/ or Health care surveys/ |
|  | (qualitative or interview\* or focus group\* or theme\* or questionnaire\* or survey\*).ti,ab. |
|  | (metasynthes\* or meta-synthes\* or metasummar\* or meta-summar\* or metastud\* or meta-stud\* or metathem\* or meta-them\* or ethno\* or emic or etic or phenomenolog\* or grounded theory or constant compar\* or (thematic\* adj3 analys\*) or theoretical sampl\* or purposive sampl\* or hermeneutic\* or heidegger\* or husserl\* or colaizzi\* or van kaam\* or van manen\* or giorgi\* or glaser\* or strauss\* or ricoeur\* or spiegelberg\* or merleau\*).ti,ab. |
|  | or/36-38 |
|  | 29 and 35 and 39 |

**Embase (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp renal replacement therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter.pt. or letter/ |
|  | note.pt. |
|  | editorial.pt. |
|  | case report/ or case study/ |
|  | (letter or comment\*).ti. |
|  | or/11-15 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 16 not 17 |
|  | animal/ not human/ |
|  | nonhuman/ |
|  | exp Animal Experiment/ |
|  | exp Experimental Animal/ |
|  | animal model/ |
|  | exp Rodent/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/18-25 |
|  | 10 not 26 |
|  | patient attitude/ or patient preference/ or patient satisfaction/ or consumer attitude/ |
|  | patient information/ or consumer health information/ |
|  | patient education/ |
|  | ((information\* or advice or advising or advised or support\*) adj3 (patient\* or need\* or requirement\* or assess\* or seek\* or access\* or disseminat\*)).ti,ab. |
|  | (information\* adj2 support\*).ti,ab. |
|  | ((client\* or patient\* or user\* or carer\* or consumer\* or customer\*) adj2 (attitud\* or priorit\* or perception\* or preferen\* or expectation\* or choice\* or perspective\* or view\* or satisfact\* or inform\* or experience or experiences or opinion\*)).ti,ab. |
|  | or/28-33 |
|  | health survey/ or exp questionnaire/ or exp interview/ or qualitative research/ or narrative/ |
|  | (qualitative or interview\* or focus group\* or theme\* or questionnaire\* or survey\*).ti,ab. |
|  | (metasynthes\* or meta-synthes\* or metasummar\* or meta-summar\* or metastud\* or meta-stud\* or metathem\* or meta-them\* or ethno\* or emic or etic or phenomenolog\* or grounded theory or constant compar\* or (thematic\* adj3 analys\*) or theoretical sampl\* or purposive sampl\* or hermeneutic\* or heidegger\* or husserl\* or colaizzi\* or van kaam\* or van manen\* or giorgi\* or glaser\* or strauss\* or ricoeur\* or spiegelberg\* or merleau\*).ti,ab. |
|  | or/35-37 |
|  | 27 and 34 and 38 |

**CINAHL (EBSCO) search terms**

|  |  |
| --- | --- |
|  | (MH "Renal Replacement Therapy+") |
|  | ((renal or kidney) n2 replace\*) |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* n1 acetate-free) |
|  | hemodialys\* or haemodialys\* |
|  | ((kidney\* or renal) n3 (transplant\* or graft\*)) |
|  | capd OR dialys\* |
|  | artificial n1 kidney\* |
|  | S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 |
|  | PT anecdote or PT audiovisual or PT bibliography or PT biography or PT book or PT book review or PT brief item or PT cartoon or PT commentary or PT computer program or PT editorial or PT games or PT glossary or PT historical material or PT interview or PT letter or PT listservs or PT masters thesis or PT obituary or PT pamphlet or PT pamphlet chapter or PT pictorial or PT poetry or PT proceedings or PT “questions and answers” or PT response or PT software or PT teaching materials or PT website |
|  | S8 NOT S9 |
|  | (MH "Consumer Satisfaction+") OR (MH "Patient Education") OR (MH "Health Education") |
|  | ((information\* or advice or advising or advised or support\*) n3 (patient\* or need\* or requirement\* or assess\* or seek\* or access\* or disseminat\*)) |
|  | (information\* n2 support\*) |
|  | ((client\* or patient\* or user\* or carer\* or consumer\* or customer\*) n2 (attitud\* or priorit\* or perception\* or preferen\* or expectation\* or choice\* or perspective\* or view\* or satisfact\* or inform\* or experience or experiences or opinion\*)) |
|  | S11 OR S12 OR S13 OR S14 |
|  | (MH "Qualitative Studies+") |
|  | (MH "Qualitative Validity+") |
|  | (MH "Interviews+") OR (MH "Focus Groups") OR (MH "Surveys") OR (MH "Questionnaires+") |
|  | (qualitative or interview\* or focus group\* or theme\* or questionnaire\* or survey\*) |
|  | (metasynthes\* or meta-synthes\* or metasummar\* or meta-summar\* or metastud\* or meta-stud\* or metathem\* or meta-them\* or ethno\* or emic or etic or phenomenolog\* or grounded theory or constant compar\* or (thematic\* n3 analys\*) or theoretical sampl\* or purposive sampl\* or hermeneutic\* or heidegger\* or husserl\* or colaizzi\* or van kaam\* or van manen\* or giorgi\* or glaser\* or strauss\* or ricoeur\* or spiegelberg\* or merleau\*) |
|  | S16 OR S17 OR S18 OR S19 OR S20 |
|  | S10 AND S15 AND S21 Limiters - English Language; Exclude MEDLINE records  |

**PsycINFO (ProQuest) search terms**

|  |  |
| --- | --- |
|  | (SU.EXACT.EXPLODE("Dialysis") OR TI,AB((renal OR kidney) NEAR/2 replace\*) OR TI,AB(hemodiafilt\* OR haemodiafilt\* OR (biofilt\* NEAR/1 acetate-free)) OR TI,AB(hemodialys\* OR haemodialys\*) OR TI,AB((kidney\* OR renal) NEAR/3 (transplant\* OR graft\*)) OR TI,AB(capd OR dialys\*) OR TI,AB(artificial NEAR/1 kidney\*)) |
|  | SU.EXACT("Client Education") OR SU.EXACT.EXPLODE("Client Attitudes") OR TI,AB((information\* or advice or advising or advised or support\*) N/3 (patient\* or need\* or requirement\* or assess\* or seek\* or access\* or disseminat\*)) OR TI,AB(information\* N/2 support\*) OR TI,AB((client\* or patient\* or user\* or carer\* or consumer\* or customer\*) N/2 (attitud\* or priorit\* or perception\* or preferen\* or expectation\* or choice\* or perspective\* or view\* or satisfact\* or inform\* or experience or experiences or opinion\*)) |
|  | ((su.exact.explode("qualitative research") or su.exact("narratives") or su.exact.explode("questionnaires") or su.exact.explode("interviews") or su.exact.explode("health care services") or ti,ab(qualitative or interview\* or focus group\* or theme\* or questionnaire\* or survey\*) or ti,ab(metasynthes\* or meta-synthes\* or metasummar\* or meta-summar\* or metastud\* or meta-stud\* or metathem\* or meta-them\* or ethno\* or emic or etic or phenomenolog\* or grounded theory or constant compar\* or (thematic\* near/3 analys\*) or theoretical-sampl\* or purposive-sampl\* or hermeneutic\* or heidegger\* or husserl\* or colaizzi\* or van kaam\* or van manen\* or giorgi\* or glaser\* or strauss\* or ricoeur\* or spiegelberg\* or merleau\*))) |
|  | 1 and 2 and 3 |
|  | Limit 4 to English |

1. Search Strategy 5

This literature search strategy was used for the following reviews;

* Modalities of RRT
	1. Clinical search literature search strategy

The literature searches for this review are detailed below and complied with the methodology outlined in Developing NICE guidelines: the manual 2014, updated 2017 <https://www.nice.org.uk/guidance/pmg20/resources/developing-nice-guidelines-the-manual-pdf-72286708700869>

*For more detailed information, please see the Methodology Review*. [Add cross reference]

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 1: Database date parameters and filters used**

| **Database** | **Dates searched** | **Search filter used** |
| --- | --- | --- |
| Medline (OVID) | 1946 – 11 December 2017   | ExclusionsObservational studies |
| Embase (OVID) | 1974 – 11 December 2017 | ExclusionsObservational studies |

1. Line 81 (Medline) and line 75 (Embase) were added to the search strategy to reduce the number of items retrieved for observational studies as the overall results from the search were very large.

This was checked to ensure that relevant studies were not excluded.

**Medline (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp Renal Replacement Therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter/ |
|  | editorial/ |
|  | news/ |
|  | exp historical article/ |
|  | Anecdotes as Topic/ |
|  | comment/ |
|  | case report/ |
|  | (letter or comment\*).ti. |
|  | or/11-18 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 19 not 20 |
|  | animals/ not humans/ |
|  | Animals, Laboratory/ |
|  | exp animal experiment/ |
|  | exp animal model/ |
|  | exp Rodentia/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/21-27 |
|  | 10 not 28 |
|  | randomized controlled trial.pt. |
|  | controlled clinical trial.pt. |
|  | randomi#ed.ti,ab. |
|  | placebo.ab. |
|  | drug therapy.fs. |
|  | randomly.ti,ab. |
|  | trial.ab. |
|  | groups.ab. |
|  | or/30-37 |
|  | Clinical Trials as topic.sh. |
|  | trial.ti. |
|  | or/30-33,35,39-40 |
|  | Meta-Analysis/ |
|  | Meta-Analysis as Topic/ |
|  | (meta analy\* or metanaly\* or metaanaly\* or meta regression).ti,ab. |
|  | ((systematic\* or evidence\*) adj3 (review\* or overview\*)).ti,ab. |
|  | (reference list\* or bibliograph\* or hand search\* or manual search\* or relevant journals).ab. |
|  | (search strategy or search criteria or systematic search or study selection or data extraction).ab. |
|  | (search\* adj4 literature).ab. |
|  | (medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab. |
|  | cochrane.jw. |
|  | ((multiple treatment\* or indirect or mixed) adj2 comparison\*).ti,ab. |
|  | or/42-51 |
|  | 29 and (41 or 52) |
|  | exp Renal Replacement Therapy/ |
|  | ((renal or kidney\*) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or haemofilt\* or hemofilt\*).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal or pre-empt\* or preempt\*) adj3 (transplant\* or graft\*)).ti,ab. |
|  | (capd or apd or ccpd or dialys\*).ti,ab. |
|  | or/54-59 |
|  | letter/ |
|  | editorial/ |
|  | news/ |
|  | exp historical article/ |
|  | Anecdotes as Topic/ |
|  | comment/ |
|  | case report/ |
|  | (letter or comment\*).ti. |
|  | or/61-68 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 147 not 148 |
|  | animals/ not humans/ |
|  | Animals, Laboratory/ |
|  | exp Animal Experimentation/ |
|  | exp Models, Animal/ |
|  | exp Rodentia/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/72-77 |
|  | 60 not 78 |
|  | limit 79 to English language |
|  | (mycophenolic acid or azathioprine or sirolimus or everolimus or tacrolimus or cyclosporin\* or steroid or calcineurin inhibitor or anaemi\* or anemi\* or vitamin d or immunosuppres\*).ti.1 |
|  | 80 not 81 |
|  | Epidemiologic studies/ |
|  | Observational study/ |
|  | exp Cohort studies/ |
|  | (cohort adj (study or studies or analys\* or data)).ti,ab. |
|  | ((follow up or observational or uncontrolled or non randomi#ed or epidemiologic\*) adj (study or studies or data)).ti,ab. |
|  | ((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys\* or cohort\* or data)).ti,ab. |
|  | Controlled Before-After Studies/ |
|  | Historically Controlled Study/ |
|  | Interrupted Time Series Analysis/ |
|  | (before adj2 after adj2 (study or studies or data)).ti,ab. |
|  | or/83-92 |
|  | Registries/ |
|  | Management Audit/ or Clinical Audit/ or Nursing Audit/ or Medical Audit/ |
|  | (registry or registries).ti,ab. |
|  | (audit or audits or auditor or auditors or auditing or auditable).ti,ab. |
|  | or/94-97 |
|  | 93 or 98 |
|  | 82 and 99 |
|  | 100 not 53 |

**Embase (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp \*renal replacement therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter.pt. or letter/ |
|  | note.pt. |
|  | editorial.pt. |
|  | case report/ or case study/ |
|  | (letter or comment\*).ti. |
|  | or/11-15 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 16 not 17 |
|  | animal/ not human/ |
|  | nonhuman/ |
|  | exp Animal Experiment/ |
|  | exp Experimental Animal/ |
|  | animal model/ |
|  | exp Rodent/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/18-25 |
|  | 10 not 26 |
|  | random\*.ti,ab. |
|  | factorial\*.ti,ab. |
|  | (crossover\* or cross over\*).ti,ab. |
|  | ((doubl\* or singl\*) adj blind\*).ti,ab. |
|  | (assign\* or allocat\* or volunteer\* or placebo\*).ti,ab. |
|  | crossover procedure/ |
|  | single blind procedure/ |
|  | randomized controlled trial/ |
|  | double blind procedure/ |
|  | or/28-36 |
|  | systematic review/ |
|  | meta-analysis/ |
|  | (meta analy\* or metanaly\* or metaanaly\* or meta regression).ti,ab. |
|  | ((systematic or evidence) adj3 (review\* or overview\*)).ti,ab. |
|  | (reference list\* or bibliograph\* or hand search\* or manual search\* or relevant journals).ab. |
|  | (search strategy or search criteria or systematic search or study selection or data extraction).ab. |
|  | (search\* adj4 literature).ab. |
|  | (medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab. |
|  | cochrane.jw. |
|  | ((multiple treatment\* or indirect or mixed) adj2 comparison\*).ti,ab. |
|  | or/38-47 |
|  | 27 and (37 or 48) |
|  | \*renal replacement therapy/ |
|  | ((renal or kidney\*) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or haemofilt\* or hemofilt\*).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal or pre-empt\* or preempt\*) adj3 (transplant\* or graft\*)).ti,ab. |
|  | (capd or apd or ccpd or dialys\*).ti,ab. |
|  | or/50-55 |
|  | letter.pt. or letter/ |
|  | note.pt. |
|  | editorial.pt. |
|  | case report/ or case study/ |
|  | (letter or comment\*).ti. |
|  | or/57-61 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 62 not 63 |
|  | animal/ not human/ |
|  | nonhuman/ |
|  | exp Animal Experiment/ |
|  | exp Experimental Animal/ |
|  | animal model/ |
|  | exp Rodent/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/64-71 |
|  | 56 not 72 |
|  | limit 73 to English language |
|  | (mycophenolic acid or azathioprine or sirolimus or everolimus or tacrolimus or cyclosporin\* or steroid or calcineurin inhibitor or anaemi\* or anemi\* or vitamin d or immunosuppres\*).ti.1 |
|  | 74 not 75 |
|  | Clinical study/ |
|  | Observational study/ |
|  | family study/ |
|  | longitudinal study/ |
|  | retrospective study/ |
|  | prospective study/ |
|  | cohort analysis/ |
|  | follow-up/ |
|  | cohort\*.ti,ab. |
|  | 84 and 85 |
|  | (cohort adj (study or studies or analys\* or data)).ti,ab. |
|  | ((follow up or observational or uncontrolled or non randomi#ed or epidemiologic\*) adj (study or studies or data)).ti,ab. |
|  | ((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys\* or cohort\* or data)).ti,ab. |
|  | (before adj2 after adj2 (study or studies or data)).ti,ab. |
|  | or/77-83,86-90 |
|  | register/ |
|  | medical audit/ |
|  | (registry or registries).ti,ab. |
|  | (audit or audits or auditor or auditors or auditing or auditable).ti,ab. |
|  | or/92-95 |
|  | 91 or 96 |
|  | 76 and 97 |
|  | 98 not 49 |
|  | 17 not 20 |

* 1. Health Economics literature search strategy

Health economic evidence was identified by conducting a broad search relating to renal replacement therapy population in NHS Economic Evaluation Database (NHS EED – this ceased to be updated after March 2015) and the Health Technology Assessment database (HTA) with no date restrictions. NHS EED and HTA databases are hosted by the Centre for Research and Dissemination (CRD). Additional searches were run on Medline and Embase for health economics and quality of life studies

* + 1. **Health economic search terms**

**Table 2: Database date parameters and filters used**

| **Database** | **Dates searched**  | **Search filter used** |
| --- | --- | --- |
| Medline & Embase | 2014 – 11 December 2017 | ExclusionsHealth economics studies |
| Centre for Research and Dissemination (CRD) | HTA & NHS EED- Inception – 11 December 2017 | None |

**Medline (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp Renal Replacement Therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter/ |
|  | editorial/ |
|  | news/ |
|  | exp historical article/ |
|  | Anecdotes as Topic/ |
|  | comment/ |
|  | case report/ |
|  | (letter or comment\*).ti. |
|  | or/11-18 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 19 not 20 |
|  | animals/ not humans/ |
|  | Animals, Laboratory/ |
|  | exp animal experiment/ |
|  | exp animal model/ |
|  | exp Rodentia/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/21-27 |
|  | 10 not 28 |
|  | Economics/ |
|  | Value of life/ |
|  | exp "Costs and Cost Analysis"/ |
|  | exp Economics, Hospital/ |
|  | exp Economics, Medical/ |
|  | Economics, Nursing/ |
|  | Economics, Pharmaceutical/ |
|  | exp "Fees and Charges"/ |
|  | exp Budgets/ |
|  | budget\*.ti,ab. |
|  | cost\*.ti. |
|  | (economic\* or pharmaco?economic\*).ti. |
|  | (price\* or pricing\*).ti,ab. |
|  | (cost\* adj2 (effective\* or utilit\* or benefit\* or minimi\* or unit\* or estimat\* or variable\*)).ab. |
|  | (financ\* or fee or fees).ti,ab. |
|  | (value adj2 (money or monetary)).ti,ab. |
|  | or/30-45 |
|  | 29 and 46 |

**Embase (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp renal replacement therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter.pt. or letter/ |
|  | note.pt. |
|  | editorial.pt. |
|  | case report/ or case study/ |
|  | (letter or comment\*).ti. |
|  | or/11-15 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 16 not 17 |
|  | animal/ not human/ |
|  | nonhuman/ |
|  | exp Animal Experiment/ |
|  | exp Experimental Animal/ |
|  | animal model/ |
|  | exp Rodent/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/18-25 |
|  | 10 not 26 |
|  | \*health economics/ |
|  | exp \*economic evaluation/ |
|  | exp \*health care cost/ |
|  | exp \*fee/ |
|  | budget/ |
|  | funding/ |
|  | budget\*.ti,ab. |
|  | cost\*.ti. |
|  | (economic\* or pharmaco?economic\*).ti. |
|  | (price\* or pricing\*).ti,ab. |
|  | (cost\* adj2 (effective\* or utilit\* or benefit\* or minimi\* or unit\* or estimat\* or variable\*)).ab. |
|  | (financ\* or fee or fees).ti,ab. |
|  | (value adj2 (money or monetary)).ti,ab. |
|  | or/28-40 |
|  | 27 and 41 |

**NHS EED and HTA (CRD) search terms**

|  |  |
| --- | --- |
|  | MeSH DESCRIPTOR Renal Replacement Therapy EXPLODE ALL TREES |
|  | (((renal or kidney) adj2 replace\*)) |
|  | ((hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free))) |
|  | ((hemodialys\* or haemodialys\*)) |
|  | (((kidney\* or renal) adj3 (transplant\* or graft\*))) |
|  | (capd) |
|  | (dialys\*) |
|  | ((artificial adj1 kidney\*)) |
|  | #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 |

* + 1. **Quality of life search terms**

**Table 3: Database date parameters and filters used**

| **Database** | **Dates searched**  | **Search filter used** |
| --- | --- | --- |
| Medline  | 1946 – 11 December 2017 | ExclusionsQuality of life studies |
| Embase  | 1974 – 11 December 2017 | ExclusionsQuality of life studies |

**Medline (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp Renal Replacement Therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter/ |
|  | editorial/ |
|  | news/ |
|  | exp historical article/ |
|  | Anecdotes as Topic/ |
|  | comment/ |
|  | case report/ |
|  | (letter or comment\*).ti. |
|  | or/11-18 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 19 not 20 |
|  | animals/ not humans/ |
|  | Animals, Laboratory/ |
|  | exp animal experiment/ |
|  | exp animal model/ |
|  | exp Rodentia/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/21-27 |
|  | 10 not 28 |
|  | (euroqol\* or eq5d\* or eq 5\*).ti,ab. |
|  | 29 and 30 |

**Embase (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp renal replacement therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter.pt. or letter/ |
|  | note.pt. |
|  | editorial.pt. |
|  | case report/ or case study/ |
|  | (letter or comment\*).ti. |
|  | or/11-15 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 16 not 17 |
|  | animal/ not human/ |
|  | nonhuman/ |
|  | exp Animal Experiment/ |
|  | exp Experimental Animal/ |
|  | animal model/ |
|  | exp Rodent/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/18-25 |
|  | 10 not 26 |
|  | (euroqol\* or eq5d\* or eq 5\*).ti,ab. |
|  | 27 and 38 |

1. Search Strategy 6

This literature search strategy was used for the following reviews;

* Symptom recognition

The literature searches for this review are detailed below and complied with the methodology outlined in Developing NICE guidelines: the manual 2014, updated 2017 <https://www.nice.org.uk/guidance/pmg20/resources/developing-nice-guidelines-the-manual-pdf-72286708700869>

*For more detailed information, please see the Methodology Review*. [Add cross reference]

* 1. Clinical search literature search strategy

Searches for patient views were run in Medline (OVID), Embase (OVID) and CINAHL, Current Nursing and Allied Health Literature (EBSCO). Search filters were applied to the search where appropriate.

**Table 1: Database date parameters and filters used**

| **Database** | **Dates searched** | **Search filter used** |
| --- | --- | --- |
| Medline (OVID) | 1946 – 11 December 2017   | ExclusionsQualitative studies |
| Embase (OVID) | 1974 – 11 December 2017 | ExclusionsQualitative studies |
| CINAHL, Current Nursing and Allied Health Literature (EBSCO) | 1991 – 11 December 2017 | ExclusionsQualitative studies |

**Medline (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp Renal Replacement Therapy/ |
|  | ((renal or kidney\*) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or haemofilt\* or hemofilt\*).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal or pre-empt\* or preempt\*) adj3 (transplant\* or graft\*)).ti,ab. |
|  | (capd or apd or ccpd or dialys\*).ti,ab. |
|  | or/1-6 |
|  | (mycophenolic acid or azathioprine or sirolimus or everolimus or tacrolimus or cyclosporin\* or steroid or calcineurin inhibitor or anaemi\* or anemi\* or vitamin d or immunosuppres\*).ti. |
|  | 7 not 8 |
|  | letter/ |
|  | editorial/ |
|  | news/ |
|  | exp historical article/ |
|  | Anecdotes as Topic/ |
|  | comment/ |
|  | case report/ |
|  | (letter or comment\*).ti. |
|  | or/10-17 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 18 not 19 |
|  | animals/ not humans/ |
|  | exp Animals, Laboratory/ |
|  | exp Animal Experimentation/ |
|  | exp Models, Animal/ |
|  | exp Rodentia/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/20-26 |
|  | 9 not 27 |
|  | limit 28 to English language |
|  | Qualitative research/ or Narration/ or exp Interviews as Topic/ or exp "Surveys and Questionnaires"/ or Health care surveys/ |
|  | (qualitative or interview\* or focus group\* or theme\* or questionnaire\* or survey\*).ti,ab. |
|  | (metasynthes\* or meta-synthes\* or metasummar\* or meta-summar\* or metastud\* or meta-stud\* or metathem\* or meta-them\* or ethno\* or emic or etic or phenomenolog\* or grounded theory or constant compar\* or (thematic\* adj3 analys\*) or theoretical sampl\* or purposive sampl\* or hermeneutic\* or heidegger\* or husserl\* or colaizzi\* or van kaam\* or van manen\* or giorgi\* or glaser\* or strauss\* or ricoeur\* or spiegelberg\* or merleau\*).ti,ab. |
|  | or/30-32 |
|  | 29 and 33 |
|  | exp "signs and symptoms"/ |
|  | symptom assessment/ |
|  | diagnosis/ or prognosis/ |
|  | (clinical adj3 (manifest\* or feature\* or finding\* or aspect\* or marker\*)).ti,ab. |
|  | (presenting adj3 (feature\* or finding\* or factor\*)).ti,ab. |
|  | presentation\*.ti,ab. |
|  | (physical adj3 (manifest\* or characteristic\* or feature\* or finding\*)).ti,ab. |
|  | (sign or signs or symptom\* or recogni\* or identif\* or complain\*).ti,ab. |
|  | (diagnos\* or prognos\* or assess\* or criteria\* or predict\*).ti,ab. |
|  | or/35-43 |
|  | 34 and 44 |

**Embase (Ovid) search terms**

|  |  |
| --- | --- |
|  | exp renal replacement therapy/ |
|  | ((renal or kidney) adj2 replace\*).ti,ab. |
|  | (hemodiafilt\* or haemodiafilt\* or (biofilt\* adj1 acetate-free)).ti,ab. |
|  | (hemodialys\* or haemodialys\*).ti,ab. |
|  | ((kidney\* or renal) adj3 (transplant\* or graft\*)).ti,ab. |
|  | capd.ti,ab. |
|  | dialys\*.ti,ab. |
|  | (artificial adj1 kidney\*).ti,ab. |
|  | or/1-8 |
|  | limit 9 to English language |
|  | letter.pt. or letter/ |
|  | note.pt. |
|  | editorial.pt. |
|  | case report/ or case study/ |
|  | (letter or comment\*).ti. |
|  | or/11-15 |
|  | randomized controlled trial/ or random\*.ti,ab. |
|  | 16 not 17 |
|  | animal/ not human/ |
|  | nonhuman/ |
|  | exp Animal Experiment/ |
|  | exp Experimental Animal/ |
|  | animal model/ |
|  | exp Rodent/ |
|  | (rat or rats or mouse or mice).ti. |
|  | or/11-25 |
|  | 10 not 26 |
|  | health survey/ or exp questionnaire/ or exp interview/ or qualitative research/ or narrative/ |
|  | (qualitative or interview\* or focus group\* or theme\* or questionnaire\* or survey\*).ti,ab. |
|  | (metasynthes\* or meta-synthes\* or metasummar\* or meta-summar\* or metastud\* or meta-stud\* or metathem\* or meta-them\* or ethno\* or emic or etic or phenomenolog\* or grounded theory or constant compar\* or (thematic\* adj3 analys\*) or theoretical sampl\* or purposive sampl\* or hermeneutic\* or heidegger\* or husserl\* or colaizzi\* or van kaam\* or van manen\* or giorgi\* or glaser\* or strauss\* or ricoeur\* or spiegelberg\* or merleau\*).ti,ab. |
|  | or/28-30 |
|  | exp symptomatology/ |
|  | symptom assessment/ |
|  | diagnosis/ or prognosis/ |
|  | (clinical adj3 (manifest\* or feature\* or finding\* or aspect\* or marker\*)).ti,ab. |
|  | (presenting adj3 (feature\* or finding\* or factor\*)).ti,ab. |
|  | presentation\*.ti,ab. |
|  | (physical adj3 (manifest\* or characteristic\* or feature\* or finding\*)).ti,ab. |
|  | (sign or signs or symptom\* or recogni\* or identif\* or complain\*).ti,ab. |
|  | (diagnos\* or prognos\* or assess\* or criteria\* or predict\*).ti,ab. |
|  | or/32-40 |
|  | 27 and 31 and 41 |

**CINAHL (EBSCO) search terms**

|  |  |
| --- | --- |
|  | (MH "Renal Replacement Therapy+") |
|  | ((renal or kidney) n2 replace\*) |
|  | hemodiafilt\* or haemodiafilt\* or haemofilt\* or hemofilt\* |
|  | hemodialys\* or haemodialys\* |
|  | ((kidney\* or renal or pre-empt\* or preempt\*) n3 (transplant\* or graft\*)) |
|  | (capd or apd or ccpd or dialys\*) |
|  | artificial n1 kidney\*  |
|  | S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 |
|  | PT anecdote or PT audiovisual or PT bibliography or PT biography or PT book or PT book review or PT brief item or PT cartoon or PT commentary or PT computer program or PT editorial or PT games or PT glossary or PT historical material or PT interview or PT letter or PT listservs or PT masters thesis or PT obituary or PT pamphlet or PT pamphlet chapter or PT pictorial or PT poetry or PT proceedings or PT “questions and answers” or PT response or PT software or PT teaching materials or PT website |
|  | S8 NOT S9 |
|  | (MH "Qualitative Studies+") |
|  | (MH "Qualitative Validity+") |
|  | (MH "Interviews+") OR (MH "Focus Groups") OR (MH "Surveys") OR (MH "Questionnaires+") |
|  | (qualitative or interview\* or focus group\* or theme\* or questionnaire\* or survey\*) |
|  | (metasynthes\* or meta-synthes\* or metasummar\* or meta-summar\* or metastud\* or meta-stud\* or metathem\* or meta-them\* or ethno\* or emic or etic or phenomenolog\* or grounded theory or constant compar\* or (thematic\* n3 analys\*) or theoretical sampl\* or purposive sampl\* or hermeneutic\* or heidegger\* or husserl\* or colaizzi\* or van kaam\* or van manen\* or giorgi\* or glaser\* or strauss\* or ricoeur\* or spiegelberg\* or merleau\*) |
|  | S11 OR S12 OR S13 OR S14 OR S15 |
|  | (MH "Signs and Symptoms+") |
|  | MH symptom assessment OR MH diagnosis OR MH prognosis |
|  | TI clinical AND TI ( manifest\* or feature\* or finding\* or aspect\* or marker\* ) |
|  | AB clinical AND AB ( manifest\* or feature\* or finding\* or aspect\* or marker\* ) |
|  | TI presenting AND TI ( feature\* or finding\* or factor\* ) |
|  | AB presenting AND AB ( feature\* or finding\* or factor\* ) |
|  | TI presentation\* OR AB presentation\* |
|  | TI physical AND TI ( manifest\* or characteristic\* or feature\* or finding\* ) |
|  | AB physical AND AB ( manifest\* or characteristic\* or feature\* or finding\* ) |
|  | TI ( (sign or signs or symptom\* or recogni\* or identif\* or complain\*) ) OR AB ( (sign or signs or symptom\* or recogni\* or identif\* or complain\*) ) |
|  | TI ( (diagnos\* or prognos\* or assess\* or criteria\* or predict\*) ) OR AB ( (diagnos\* or prognos\* or assess\* or criteria\* or predict\*) ) |
|  | S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 |
|  | S10 AND S16 AND S28 Limiters - Exclude MEDLINE records; Human; Language: English |