National Guideline Centre

Chronic heart failure

Search strategies appendix

NICE guideline

Appendices

12 January 2018

Disclaimer

Healthcare professionals are expected to take NICE guidelines fully into account when exercising their clinical judgement. However, the guidance does not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of each patient, in consultation with the patient and, where appropriate, their guardian or carer.

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Contents

Appendix A: Literature search strategies

A.1   Contents

Search strategies used for the chronic heart failure guideline are outlined below and were run in accordance with the methodology in the NICE guidelines manual 2014, available from

https://www.nice.org.uk/article/pmg20/. All searches were run up to 6 December 2017 unless otherwise stated. Any studies added to the databases after this date (even those published prior to this date) were not included unless specifically stated in the text. Where possible searches were limited to retrieve material published in English.

Searches for the **clinical reviews** were run in Medline (OVID), Embase (OVID) and the Cochrane Library (Wiley). Additional searches were run in CINAHL, Current Nursing and Allied Health Literature (EBSCO), PsycINFO (Ovid & ProQuest] and AMED, Allied and Complementary Medicine (Ovid), see Table 2.

Searches for **intervention and diagnostic studies** were usually constructed using a PICO format where population (P) terms were combined with Intervention (I) and sometimes Comparison (C) terms. An intervention can be a drug, a procedure or a diagnostic test. Outcomes (O) are rarely used in search strategies for interventions. Search filters were also added to the search where appropriate.

Table 2:   Databases searched

Question	Question number	Databases
Beta Blockers	A.4.1	Medline, Embase, The Cochrane Library
BNP Diagnosis	A.4.2	Medline, Embase, The Cochrane Library
Cardiac MRI	A.4.3	Medline, Embase, The Cochrane Library
Communications, diagnosis and prognosis	A.4.4	Medline, Embase, CINAHL PsycINFO
Coronary revascularisation	A.4.5	Medline, Embase, The Cochrane Library
Diuretics	A.4.6	Medline, Embase, The Cochrane Library
Domiciliary Oxygen	A.4.7	Medline, Embase, The Cochrane Library
Implantable cardiac defibrillators	A.4.8	Medline, Embase, CINAHL PsycINFO
Iron	A.4.9	Medline, Embase, The Cochrane Library
Multi-disciplinary teams	A.4.10	Medline, Embase, The Cochrane Library
Monitoring	A.4.11	Medline, Embase, The Cochrane Library
Mineralcorticoid receptor antagonists	A.4.12	Medline, Embase, The Cochrane Library
Pharma in CKD	A.4.13	Medline, Embase, The Cochrane Library
Referral risk tools	A.4.14	Medline, Embase, The Cochrane Library
Salf and fluid	A.4.15	Medline, Embase, The Cochrane Library

Question	Question number	Databases
Telemonitoring	A.4.16	Medline, Embase, The Cochrane Library, AMED
Transition	A.4.17	Medline, Embase, CINAHL PsycINFO

Searches for the health economic reviews were run in Medline, Embase, the NHS Economic Evaluations Database (NHS EED) and the Health Technology Assessment (HTA). NHS EED and HTA databases are hosted by the Centre for Research and Dissemination (CRD). The NHS EED database has not been updated since 2015.

For Medline and Embase an economic filter (instead of a study type filter) was added to the same clinical search strategy. Searches in CRD were constructed using population terms only.

A.2 Population search strategies

A.2.1 Standard Chronic heart failure population

The standard population was not used in questions A.4.11 and A.4.16.

The standard population was use in combination with added population terms in questions A.4.1, A.4.2, A.4.8 and A.4.13.

Medline search terms

1.	exp heart failure/
2.	cardiomyopathy, dilated/
3.	shock, cardiogenic/
4.	exp ventricular dysfunction/
5.	cardiac output, low/
6.	((heart or cardiac or myocardial) adj2 (failure or decompensation)).ti.
7.	((congestive or acute or decompensat* or chronic) adj2 "heart failure").ti,ab.
8.	((dilated or congestive) adj2 cardiomyopath*).ti.
9.	"cardiogenic shock".ti.
10.	((ventricular or ventricle*) adj2 (failure or insufficien* or dysfunction*)).ti.
11.	(("left ventricular" or "left ventricle") adj2 (failure or insufficien* or dysfunction*)).ti,ab.
12.	lvsd.ti,ab.
13.	or/1-12

Embase search terms

1.	*heart failure/ or acute heart failure/ or *cardiogenic shock/ or *diastolic dysfunction/ or *forward heart failure/ or *high output heart failure/ or *systolic dysfunction/
2.	*congestive cardiomyopathy/ or exp *congestive heart failure/
3.	exp *heart ventricle failure/
4.	((heart or cardiac or myocardial) adj2 (failure or decompensation)).ti.
5.	((congestive or acute or decompensat* or chronic) adj2 "heart failure").ti,ab.
6.	((dilated or congestive) adj2 cardiomyopath*).ti.
7.	"cardiogenic shock".ti.
8.	((ventricular or ventricle*) adj2 (failure or insufficien* or dysfunction*)).ti.
9.	(("left ventricular" or "left ventricle") adj2 (failure or insufficien* or dysfunction*)).ti,ab.

10.	lvsd.ti,ab.
11.	or/1-10

Cochrane search terms

#1.	MeSH descriptor: [heart failure] explode all trees
#2.	MeSH descriptor: [cardiomyopathy, dilated] this term only
#3.	MeSH descriptor: [shock, cardiogenic] this term only
#4.	MeSH descriptor: [ventricular dysfunction] explode all trees
#5.	MeSH descriptor: [cardiac output, low] this term only
#6.	(heart or cardiac or myocardial) next (failure or decompensation):ti
#7.	((congestive or chronic) next ("heart failure")):ti,ab
#8.	((dilated or congestive) next cardiomyopath*):ti
#9.	("cardiogenic shock"):ti
#10.	((ventricular or ventricle) next (failure or insufficienc* or dysfunction*)):ti
#11.	lvsd:ti,ab
#12.	(("left ventricular" or "left ventricle") next (failure or insufficienc* or dysfunction*)):ti,ab
#13.	(#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12)

CINAHL search terms

S1	(MH "heart failure+")
S2	(MH "cardiac output, decreased")
S3	(MH "shock, cardiogenic")
S4	(MH "ventricular dysfunction+")
S5	ti heart n2 failure or ti heart n2 decompensation or ti cardiac n2 failure or ti cardiac n2 decompensation or ti myocardial n2 decompensation or ti myocardial n2 failure or tx congestive n2 "heart failure" or tx chronic n2 "heart failure" or ti dilated n2 cardiomyopath* or ti congestive n2 cardiomyopath* or ti cardiogenic n2 shock or tx lvsd
S6	tx ventricular n2 failure or tx ventricular n2 dysfunction or tx ventricular n2 insufficiency or tx ventricle n2 failure or tx ventricle n2 dysfunction or tx ventricle n2 insufficiency
S7	S1 or S2 or S3 or S4 or S5 or S6

CRD search terms

1	MeSH descriptor heart failure explode all trees
2	MeSH descriptor cardiomyopathy, dilated
3	MeSH descriptor shock, cardiogenic
4	MeSH descriptor ventricular dysfunction explode all trees
5	MeSH descriptor cardiac output, low
6	(((heart or cardiac or myocardial) adj2 (failure or decompensation))):ti
7	(((congestive or acute or decompensat* or chronic) adj2 "heart failure"))
8	(((dilated or congestive) adj2 cardiomyopath*)):ti
9	("cardiogenic shock"):ti
10	(((ventricular or ventricle*) adj2 (failure or insufficien* or dysfunction*))):ti
11	((("left ventricular" or "left ventricle") adj2 (failure or insufficien* or dysfunction*)))
12	(lvsd)
13	(#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12)

A.3   Study filter search terms

A.3.1   Excluded study designs and publication types

The following study designs and publication types were removed from retrieved results using the NOT operator.

Medline search terms

1.	letter/
2.	editorial/
3.	news/
4.	exp historical article/
5.	anecdotes as topic/
6.	comment/
7.	case report/
8.	(letter or comment*).ti.
9.	or/1-8
10.	randomized controlled trial/ or random*.ti,ab.
11.	9 not 10
12.	animals/ not humans/
13.	exp animals, laboratory/
14.	exp animal experimentation/
15.	exp models, animal/
16.	exp rodentia/
17.	(rat or rats or mouse or mice).ti.
18.	or/11-17

Embase search terms

1.	letter.pt. or letter/
2.	note.pt.
3.	editorial.pt.
4.	case report/ or case study/
5.	(letter or comment*).ti.
6.	or/1-5
7.	randomized controlled trial/ or random*.ti,ab.
8.	6 not 7
9.	animal/ not human/
10.	nonhuman/
11.	exp animal experiment/
12.	exp experimental animal/
13.	animal model/
14.	exp rodent/
15.	(rat or rats or mouse or mice).ti.
16.	or/8-15

AMED search terms

1.	case report/

2.	(letter or comment*).ti.
3.	or/1-2
4.	randomized controlled trials/ or random*.ti,ab.
5.	3 not 4
6.	animals/ not humans/
7.	(rat or rats or mouse or mice).ti.
8.	or/5-7

CINAHL search terms

S1.	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

A.3.2   Randomised controlled trials (RCT)

Medline search terms

(Based on the sensitivity and precision maximising version reported in the Cochrane Handbook (http://handbook.cochrane.org/)).

1.	randomized controlled trial.pt.
2.	controlled clinical trial.pt.
3.	randomi#ed.ti,ab.
4.	placebo.ab.
5.	randomly.ab.ti
6.	clinical trials as topic.sh.
7.	trial.ti.
8.	or/1-7

Embase search terms

1.	random*.ti,ab.
2.	factorial*.ti,ab.
3.	(crossover* or cross over*).ti,ab.
4.	((doubl* or singl*) adj blind*).ti,ab.
5.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
6.	crossover procedure/
7.	double blind procedure/
8.	single blind procedure/
9.	randomized controlled trial/
10.	or/1-9

A.3.3   Systematic reviews (SR)

Medline search terms

1.	meta-analysis/
2.	meta-analysis as topic/

3.	(meta analy* or metanaly* or metaanaly*).ti,ab.
4.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
5.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
6.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
7.	(search* adj4 literature).ab.
8.	(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.
9.	cochrane.jw.
10.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
11.	or/1-10

Embase search terms

1.	systematic review/
2.	meta-analysis/
3.	(meta analy* or metanaly* or metaanaly*).ti,ab.
4.	((systematic or evidence) adj3 (review* or overview*)).ti,ab.
5.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
6.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
7.	(search* adj4 literature).ab.
8.	(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.
9.	cochrane.jw.
10.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
11.	or/1-10

A.3.4 Health economic studies (HE)

Medline search terms

1.	economics/
2.	value of life/
3.	exp "costs and cost analysis"/
4.	exp economics, hospital/
5.	exp economics, medical/
6.	economics, nursing/
7.	economics, pharmaceutical/
8.	exp "fees and charges"/
9.	exp budgets/
10.	budget*.ti,ab.
11.	cost*.ti.
12.	(economic* or pharmaco?economic*).ti.
13.	(price* or pricing*).ti,ab.
14.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
15.	(financ* or fee or fees).ti,ab.
16.	(value adj2 (money or monetary)).ti,ab.
17.	or/1-16

Embase search terms

1.	health economics/
2.	exp economic evaluation/
3.	exp health care cost/
4.	exp fee/
5.	budget/
6.	funding/
7.	budget*.ti,ab.
8.	cost*.ti.
9.	(economic* or pharmaco?economic*).ti.
10.	(price* or pricing*).ti,ab.
11.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
12.	(financ* or fee or fees).ti,ab.
13.	(value adj2 (money or monetary)).ti,ab.
14.	or/1-13

A.3.5 Quality of life studies (QoL)

Medline search terms

1.	quality-adjusted life years/
2.	sickness impact profile/
3.	(quality adj2 (wellbeing or well-being)).ti,ab.
4.	sickness impact profile.ti,ab.
5.	disability adjusted life.ti,ab.
6.	(qal* or qtime* or qwb* or daly*).ti,ab.
7.	(euroqol* or eq5d* or eq 5d*).ti,ab.
8.	(qol* or hql* or hqol* or h qol* or hrqol* or hr qol*).ti,ab.
9.	(health utility* or utility score* or disutilit*).ti,ab.
10.	(hui or hui1 or hui2 or hui3).ti,ab.
11.	health* year* equivalent*.ti,ab.
12.	(hye or hyes).ti,ab.
13.	rosser.ti,ab.
14.	(willingness to pay or time tradeoff or time trade off or tto or standard gamble*).ti,ab.
15.	(sf36 or sf 36 or short form 36 or shortform 36 or shortform36).ti,ab.
16.	(sf20 or sf 20 or short form 20 or shortform 20 or shortform20).ti,ab.
17.	(sf12 or sf 12 or short form 12 or shortform 12 or shortform12).ti,ab.
18.	(sf8 or sf 8 or short form 8 or shortform 8 or shortform8).ti,ab.
19.	(sf6 or sf 6 or short form 6 or shortform 6 or shortform6).ti,ab.
20.	or/1-19

Embase search terms

1.	quality adjusted life year/
2.	"quality of life index"/
3.	short form 12/ or short form 20/ or short form 36/ or short form 8/
4.	sickness impact profile/
5.	(quality adj2 (wellbeing or well-being)).ti,ab.
6.	sickness impact profile.ti,ab.

7.	disability adjusted life.ti,ab.
8.	(qal* or qtime* or qwb* or daly*).ti,ab.
9.	(euroqol* or eq5d* or eq 5d*).ti,ab.
10.	(qol* or hql* or hqol* or h qol* or hrqol* or hr qol*).ti,ab.
11.	(health utility* or utility score* or disutilit*).ti,ab.
12.	(hui or hui1 or hui2 or hui3).ti,ab.
13.	health* year* equivalent*.ti,ab.
14.	(hye or hyes).ti,ab.
15.	rosser.ti,ab.
16.	(willingness to pay or time tradeoff or time trade off or tto or standard gamble*).ti,ab.
17.	(sf36 or sf 36 or short form 36 or shortform 36 or shortform36).ti,ab.
18.	(sf20 or sf 20 or short form 20 or shortform 20 or shortform20).ti,ab.
19.	(sf12 or sf 12 or short form 12 or shortform 12 or shortform12).ti,ab.
20.	(sf8 or sf 8 or short form 8 or shortform 8 or shortform8).ti,ab.
21.	(sf6 or sf 6 or short form 6 or shortform 6 or shortform6).ti,ab.
22.	or/1-21

A.3.6   Diagnostic test accuracy studies (DIAG)

Medline search terms

1.	exp "sensitivity and specificity"/
2.	(sensitivity or specificity).ti,ab.
3.	((pre test or pretest or post test) adj probability).ti,ab.
4.	(predictive value* or ppv or npv).ti,ab.
5.	likelihood ratio*.ti,ab.
6.	likelihood function/
7.	(roc curve* or auc).ti,ab.
8.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.
9.	gold standard.ab.
10.	or/1-9

Embase search terms

1.	exp "sensitivity and specificity"/
2.	(sensitivity or specificity).ti,ab.
3.	((pre test or pretest or post test) adj probability).ti,ab.
4.	(predictive value* or ppv or npv).ti,ab.
5.	likelihood ratio*.ti,ab.
6.	(roc curve* or auc).ti,ab.
7.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.
8.	diagnostic accuracy/
9.	diagnostic test accuracy study/
10.	gold standard.ab.
11.	or/1-10

A.3.7   Observational studies (OBS)

Medline search terms

1.	epidemiologic studies/
2.	exp case control studies/
3.	exp cohort studies/
4.	cross-sectional studies/
5.	case control.ti,ab.
6.	(cohort adj (study or studies or analys*)).ti,ab.
7.	((follow up or observational or uncontrolled or non randomi#ed or nonrandomi#ed or epidemiologic*) adj (study or studies)).ti,ab.
8.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort*)).ti,ab.
9.	or/1-8

Embase search terms

1.	clinical study/
2.	exp case control study/
3.	family study/
4.	longitudinal study/
5.	retrospective study/
6.	prospective study/
7.	cross-sectional study/
8.	cohort analysis/
9.	follow-up/
10.	cohort*.ti,ab.
11.	9 and 10
12.	case control.ti,ab.
13.	(cohort adj (study or studies or analys*)).ti,ab.
14.	((follow up or observational or uncontrolled or non randomi#ed or nonrandomi#ed or epidemiologic*) adj (study or studies)).ti,ab.
15.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort*)).ti,ab.
16.	or/1-8,11-15

A.3.8   Qualitative reviews (QUAL)

Medline search terms

1.	qualitative research/ or narration/ or exp interviews as topic/ or exp questionnaires/ or health care surveys/
2.	(qualitative or interview* or focus group* or theme* or questionnaire* or survey*).ti,ab.
3.	(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.
4.	or/1-3

Embase search terms

1.	health survey/ or exp questionnaire/ or exp interview/ or qualitative research/ or narrative/
2.	(qualitative or interview* or focus group* or theme* or questionnaire* or survey*).ti,ab.
3.	(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.
4.	or/1-3

CINAHL search terms

S1.	(MH "qualitative studies+")
S2.	(MH "qualitative validity+")
S3.	(MH "interviews+") or (MH "focus groups") or (MH "surveys") or (MH "questionnaires+")
S4.	TI ((qualitative or interview* or focus group* or theme* or questionnaire* or survey*)) or AB ((qualitative or interview* or focus group* or theme* or questionnaire* or survey*))
S5.	TI ((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*)) or 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* 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*))
S6.	S1 or S2 or S3 or S4 or S5

A.4 Searches for specific questions

A.4.1 Beta Blockers

- What is the clinical and cost effectiveness of beta-blockers in the management of chronic heart failure in people with heart failure with reduced ejection fraction (HFREF) and atrial fibrillation?

Medline search terms

1.	Standard population [A.2.1]
2.	exp atrial fibrillation/
3.	(atrial adj3 fibrillat*).ti,ab.
4.	((auricular adj3 fibrillat*) or (supraventricul* adj3 arrhythmi*)).ti,ab.
5.	or/2-4
6.	Excluded study designs and publication types [A.3.1]
7.	1 not 6
8.	5 not 6
9.	adrenergic beta-antagonists/ or adrenergic beta-1 receptor antagonists/
10.	bisoprolol/
11.	metoprolol/
12.	nebivolol/
13.	(carvedilol or metoprolol or bisoprolol or nebivolol).mp.
14.	(beta* adj3 (blockade or blocker* or blocking or antagonist*)).ti,ab.
15.	((beta-adrenoceptor or b-adrenoceptor or beta-adrenergic) adj3 (blockade or blocker* or

16.	or/25-31
17.	7 and 16
18.	8 and 16
19.	Study filters RCT [A.3.2] or SR [A.3.3]
20.	17 and 19 (Inception – 6 December 2017)
21.	18 and 19 (2013 – 6 December 2017)
22.	20 or 21
23.	Limit 22 to English language

(The first row visible at top: "blocking or antagonist*)).ti,ab." belongs to row 15.)

	blocking or antagonist*)).ti,ab.
16.	or/25-31
17.	7 and 16
18.	8 and 16
19.	Study filters RCT [A.3.2] or SR [A.3.3]
20.	17 and 19 (Inception – 6 December 2017)
21.	18 and 19 (2013 – 6 December 2017)
22.	20 or 21
23.	Limit 22 to English language

Embase search terms

1.	Standard population [A.2.1]
2.	heart atrium fibrillation/
3.	(atrial adj3 fibrillat*).ti,ab.
4.	((auricular adj3 fibrillat*) or (supraventricul* adj3 arrhythmi*)).ti,ab.
5.	or/2-4
6.	Excluded study designs and publication types [A.3.1]
7.	1 not 6
8.	5 not 6
9.	*beta adrenergic receptor blocking agent/ or *beta 1 adrenergic receptor blocking agent/
10.	*bisoprolol/ or *bisoprolol fumarate/ or *bisoprolol fumarate plus hydrochlorothiazide/ or *carvedilol/ or *metoprolol/ or *metoprolol fumarate/ or *metoprolol succinate/ or *metoprolol tartrate/ or *nebivolol/
11.	(carvedilol or metoprolol or bisoprolol or nebivolol).mp.
12.	(beta* adj3 (blockade or blocker* or blocking or antagonist*)).ti,ab.
13.	((beta-adrenoceptor or b-adrenoceptor or beta-adrenergic) adj3 (blockade or blocker* or blocking or antagonist*)).ti,ab.
14.	or/9-13
15.	Study filters RCT [A.3.2] or SR [A.3.3]
16.	7 and 14
17.	8 and 14
18.	16 and 15 (Inception – 6 December 2017)
19.	17 and 15 (2013 – 6 December 2017)
20.	18 or 19
21.	Limit 20 to English language

Cochrane search terms

#1.	Standard population [A.2.1]
#2.	MeSH descriptor: [atrial fibrillation] this term only
#3.	(atrial near/3 fibrillat*):ti,ab
#4.	(auricular near/3 fibrillat*):ti,ab
#5.	(supraventricular near/3 *arrhythmia*):ti,ab
#6.	(or #2-#5)
#7.	#1 or #6
#8.	MeSH descriptor: [adrenergic beta-antagonists] this term only
#9.	MeSH descriptor: [adrenergic beta-1 receptor antagonists] this term only
#10.	MeSH descriptor: [bisoprolol] this term only

#11.	MeSH descriptor: [metoprolol] this term only
#12.	(carvedilol or metoprolol or bisoprolol or nebivolol):ti,ab
#13.	(beta* next/3 (blockade or blocker* or blocking or antagonist*)):ti,ab
#14. (	((beta-adrenoceptor or b-adrenoceptor or beta-adrenergic) next/3 (blockade or blocker* or blocking or antagonist*)):ti,ab
#15.	(or #8-#14)
#16.	#6 and #15 Year from 2013
#17.	#1 and #15 Year from Inception

A.4.2   BNP Diagnosis

A.4.2.1   Chronic heart failure population only

Searches for the following 2 questions were run as one search:

- In people with suspected heart failure, what thresholds of pro B type natriuretic peptide (NT-proBNP) and B-type natriuretic peptide (BNP) are most accurate in identifying heart failure (as indicated by the reference standard)?
- In people with suspected heart failure, what is the clinical and cost effectiveness of N-terminus pro-B-type natriuretic peptide (NT-proBNP) compared to B-type natriuretic peptide (BNP), when each is followed by the appropriate patient pathway, in order to improve patient outcomes?

Medline search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	natriuretic peptide, brain/
6.	(natriuretic adj2 peptide*).ti,ab.
7.	(bnp or nt-probnp or nt-pro bnp or nt-bnp).ti,ab.
8.	natriuretic peptides/
9.	or/5-8
10.	4 and 9
11.	Study filters RCT [A.3.2] or SR [A.3.3] or OBS [A.3.7] or DIAG [A.3.6]
12.	10 and 11
	Date limits: 2009 – 6 December 2017

Embase search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	*natriuretic factor/
6.	*amino terminal pro brain natriuretic peptide/
7.	*brain natriuretic peptide/
8.	(bnp or nt-probnp or nt-pro bnp or nt-bnp).ti,ab.
9.	(natriuretic adj2 peptide*).ti,ab.
10.	or/5-9
11.	4 and 10

12.	Study filters RCT [A.3.2] or SR [A.3.3] or OBS [A.3.7] or DIAG [A.3.6]
13.	11 and 12
	Date limits: 2009 – 6 December 2017

Cochrane search terms

#1.	Standard population [A.2.1]
#2.	MeSH descriptor: [natriuretic peptide, brain] this term only
#3.	(natriuretic near/2 peptide*):ti,ab
#4.	(bnp or nt-probnp or nt-pro bnp or nt-bnp):ti,ab
#5.	MeSH descriptor: [natriuretic peptides] this term only
#6.	#2 or #3 or #4 or #5
#7.	#1 and #6
	Date limits: 2009 – 6 December 2017

A.4.2.2 Chronic heart failure with either atrial fibrillation or chronic kidney disease

Searches for the following 4 questions were run as one search:

- In people with suspected heart failure who also have atrial fibrillation, what thresholds of N-terminus pro-B-type natriuretic peptide (NT-proBNP) and B-type natriuretic peptide (BNP) are most accurate in identifying heart failure (as indicated by the reference standard)?

- In people with suspected heart failure who also have atrial fibrillation, what is the clinical and cost effectiveness of N-terminus pro-B-type natriuretic peptide (NT-proBNP) compared to B-type natriuretic peptide (BNP), when each is followed by the appropriate patient pathway, in order to improve patient outcomes?

- In people with suspected heart failure who also have chronic kidney disease, what thresholds of N-terminus pro-B-type natriuretic peptide (NT-proBNP) and B-type natriuretic peptide (BNP) are most accurate in identifying heart failure (as indicated by the reference standard)?

- In people with suspected heart failure who also have chronic kidney disease, what is the clinical and cost effectiveness of N-terminus pro-B-type natriuretic peptide (NT-proBNP) compared to B-type natriuretic peptide (BNP), when each is followed by the appropriate patient pathway, in order to improve patient outcomes?

Medline search terms

1.	Standard population [A.2.1]
2.	atrial fibrillation/
3.	(atrial adj3 fibrillat*).ti,ab.
4.	((auricular adj3 fibrillat*) or (supraventricul* adj3 arrhythmi*)).ti,ab.
5.	or/2-4
6.	renal insufficiency, chronic/ or exp kidney failure, chronic/
7.	kidney diseases/ and chronic.ti,ab.
8.	((chronic or progressive) adj3 (renal or kidney)).ti,ab.
9.	ckd.ti,ab.
10.	((renal or kidney) adj3 (insufficienc* or disease*)).ti,ab.
11.	((renal or kidney) adj3 (function* or failure* or dysfunction*)).ti,ab.
12.	glomerular filtration rate/
13.	(glomerul* filtration rate* or gfr).ti,ab.
14.	diabetic neuropathies/
15.	exp glomerulonephritis/

16.	exp proteinuria/
17.	(glomerulosclerosis or glomerulonephritis or nephropath* or proteinuria* or albuminuria or microalbuminuria).ti,ab.
18.	(glomerular adj (sclerosis or nephritis)).ti,ab.
19.	acidosis, renal tubular/
20.	((renal or kidney* or distal or proximal or tubul*) adj3 acidos*).ti,ab.
21.	exp hypertension, renal/
22.	((renal or kidney* or renovascular) adj3 hypertensi*).ti,ab.
23.	exp hyperparathyroidism, secondary/
24.	((renal or kidney* or secondary) adj3 hyperparathyroidism).ti,ab.
25.	hyperuricemia/
26.	hyperuric?emi*.ti,ab.
27.	((renal or kidney*) adj3 osteo*).ti,ab.
28.	or/6-27
29.	1 or 5 or 28
30.	Excluded study designs and publication types [A.3.1]
31.	29 not 30
32.	Limit 31 to English language
33.	natriuretic peptide, brain/
34.	(natriuretic adj2 peptide*).ti,ab.
35.	(bnp or nt-probnp or nt-pro bnp or nt-bnp).ti,ab.
36.	natriuretic peptides/
37.	or/33-36
38.	32 and 37
	Date limits: Inception - 2008

Embase search terms

1.	Standard population [A.2.1]
2.	exp atrial fibrillation/
3.	(atrial adj3 fibrillat*).ti,ab.
4.	((auricular adj3 fibrillat*) or (supraventricul* adj3 arrhythmi*)).ti,ab.
5.	or/2-4
6.	chronic kidney failure/
7.	chronic kidney disease/
8.	(kidney failure/ or kidney disease/) and chronic.ti,ab.
9.	((chronic or progressive) adj3 (renal or kidney*)).ti,ab.
10.	ckd.ti,ab.
11.	((renal or kidney*) adj3 (insufficienc* or disease*)).ti,ab.
12.	((renal or kidney*) adj3 (function* or failure* or dysfunction*)).ti,ab.
13.	glomerulus filtration rate/
14.	(glomerul* filtration rate* or gfr).ti,ab.
15.	diabetic neuropathy/
16.	exp glomerulonephritis/
17.	exp proteinuria/
18.	(glomerulosclerosis or glomerulonephritis or nephropath* or proteinuria* or albuminuria or microalbuminuria).ti,ab.

19.	(glomerular adj (sclerosis or nephritis)).ti,ab.
20.	kidney tubule acidosis/
21.	((renal or kidney* or distal or proximal or tubul*) adj3 acidos*).ti,ab.
22.	exp renovascular hypertension/
23.	((renal or kidney* or renovascular) adj3 hypertensi*).ti,ab.
24.	hyperuricemia/
25.	hyperuric?emi*.ti,ab.
26.	secondary hyperparathyroidism/
27.	((renal or kidney* or secondary) adj3 hyperparathyroidism).ti,ab.
28.	renal osteodystrophy/
29.	((renal or kidney*) adj3 osteo*).ti,ab.
30.	or/6-29
31.	1 or 5 or 30
32.	Excluded study designs and publication types [A.3.1]
33.	31 not 32
34.	Limit 33 to English language
35.	*natriuretic factor/
36.	*amino terminal pro brain natriuretic peptide/
37.	*brain natriuretic peptide/
38.	(bnp or nt-probnp or nt-pro bnp or nt-bnp).ti,ab.
39.	(natriuretic adj2 peptide*).ti,ab.
40.	or/35-39
41.	34 and 40
	Date limits: Inception - 2008

Cochrane search terms

#1.	Standard population [A.2.1]
#2.	MeSH descriptor: [atrial fibrillation] this term only
#3.	(atrial near/3 fibrillat*):ti,ab
#4.	(auricular near/3 fibrillat*):ti,ab
#5.	(supraventricular near/3 *arrhythmia*):ti,ab
#6.	#2 or #3 or #4 or #5
#7.	MeSH descriptor: [renal insufficiency, chronic] this term only
#8.	MeSH descriptor: [kidney failure, chronic] explode all trees
#9.	MeSH descriptor: [kidney diseases] this term only
#10.	chronic:ti,ab
#11.	#9 and #10
#12.	((chronic or progressive) near/3 (renal or kidney)):ti,ab
#13.	ckd:ti,ab
#14.	((renal or kidney*) near/3 (insufficienc* or disease*)):ti,ab
#15.	((renal or kidney*) near/3 (function* or failure* or dysfunction*)):ti,ab
#16.	(glomerul* filtration rate* or gfr):ti,ab
#17.	MeSH descriptor: [glomerular filtration rate] this term only
#18.	MeSH descriptor: [diabetic neuropathies] this term only
#19.	MeSH descriptor: [glomerulonephritis] explode all trees

#20.	MeSH descriptor: [proteinuria] explode all trees
#21.	(glomerulosclerosis or glomerulonephritis or nephropath* or proteinuria* or albuminuria or microalbuminuria):ti,ab
#22.	(glomerular next (sclerosis or nephritis)):ti,ab
#23.	[mh ^"acidosis, renal tubular"]
#24.	((renal or kidney* or distal or proximal or tubul*) near/3 acidos*):ti,ab
#25.	[mh "hypertension, renal"]
#26.	((renal or kidney* or renovascular) near/3 hypertensi*):ti,ab
#27.	[mh "hyperparathyroidism, secondary"]
#28.	((renal or kidney* or renovascular) near/3 hypertensi*):ti,ab
#29.	[mh "hyperparathyroidism, secondary"]
#30.	((renal or kidney* or secondary) near/3 hyperparathyroidism):ti,ab
#31.	[mh ^hyperuricemia]
#32.	hyperuric?emi*:ti,ab
#33.	((renal or kidney*) near/3 osteo*):ti,ab
#34.	(or #7-#9, #11, #12-#33)
#35.	#1 or #6 or #34
#36.	MeSH descriptor: [natriuretic peptide, brain] this term only
#37.	(natriuretic near/2 peptide*):ti,ab
#38.	(bnp or nt-probnp or nt-pro bnp or nt-bnp):ti,ab
#39.	MeSH descriptor: [natriuretic peptides] this term only
#40.	(or #36-#39)
#41.	#35 and #40
	Date limits: 1900 - 2008

A.4.3 Cardiac MRI

- In people with heart failure what is the clinical and cost effectiveness of cardiac MRI followed by the appropriate patient pathway?

Medline search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	magnetic resonance imaging/
6.	(mri* or nmr* or magnetic resonance).ti,ab.
7.	(cmr or ((cardiac or cardiovascular) adj mr)).ti,ab.
8.	or/5-7
9.	4 and 8
10.	Study filters RCT [A.3.2] or SR [A.3.3]
11.	9 and 10
	Date limits: Inception – 6 December 2017

Embase search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]

3.	1 not 2
4.	Limit 3 to English language
5.	nuclear magnetic resonance imaging/ or cardiovascular magnetic resonance/
6.	(mri* or nmr* or magnetic resonance).ti,ab.
7.	(cmr or ((cardiac or cardiovascular) adj mr)).ti,ab.
8.	or/5-7
9.	4 and 8
10.	Study filters RCT [A.3.2] or SR [A.3.3]
11.	9 and 10
	Date limits: Inception – 6 December 2017

Cochrane search terms

#1.	Standard population [A.2.1]
#2.	MeSH descriptor: [magnetic resonance imaging] this term only
#3.	(mri* or nmr* or magnetic resonance):ti,ab
#4.	(cmr or ((cardiac or cardiovascular) next mr)):ti,ab
#5.	#2 or #3 or #4
#6.	#1 and #5
	Date limits: Inception – 6 December 2017

A.4.4 Communication, Diagnosis and Prognosis

- What are the information and support needs to be considered when communication a diagnosis and consequent prognosis, to people with heart failure, their families and carers?

Medline search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	communication/
6.	patient education as topic/
7.	consumer health information/
8.	patient satisfaction/
9.	"attitude of health personnel"/
10.	physician-patient relations/
11.	nurse-patient relations/
12.	professional-family relations/ or professional-patient relations/
13.	patient participation/
14.	decision making/
15.	popular-works-publication-type/ or exp information-services/ or publications/ or books/ or pamphlets/ or counseling/ or directive-counseling/
16.	or/5-15
17.	caregivers/ or exp family/ or exp parents/ or exp legal-guardians/
18.	patients/ or inpatients/ or outpatients/
19.	((patient* or carer* or famil* or parent* or father* or mother* or caregiver* or next of kin) adj6 (attitude* or perspective* or view* or interpret* or understand* or misunderstand* or opinion* or decision* or decid* or belief* or believe* or feeling* or priorit* or perception* or

	choic* or preferen*)).ti,ab.
20.	((patient* or carer* or famil* or parent* or father* or mother* or caregiver* or next of kin) adj6 (inform* or educat* or learn* or advi?e or knowledge or involve* or support* or counsel* or communicat* or discuss* or convers*)).ti,ab.
21.	((information* or support* or advi?e* or counsel* or knowledge or educat* or psycholog*) adj6 (provision* or provide* or deliver* or facilitat* or establish* or arrang* or offer* or need* or access*)).ti,ab.
22.	((patient* or carer* or famil* or parent* or father* or mother* or caregiver* or next of kin) adj6 (resource* or pamphlet* or leaflet* or booklet* or manual* or brochure* or publication* or handout* or website* or web site* or web page* or webpage* or video* or dvd* or internet or computer* or program* or interactive* or email* or e-mail* or wireless or bluetooth or telephone or phone or sms or text*)).ti,ab.
23.	or/17-22
24.	diagnosis/ or prognosis/
25.	advance care planning/ or palliative care/ or terminal care/
26.	(diagnos* or prognos*).ti,ab.
27.	(advance* adj2 (plan* or decision* or directive*)).ti,ab.
28.	((advance* or patient*) adj3 (care or caring) adj3 (continu* or plan*)).ti,ab.
29.	(end of life or terminal* or palliativ*).ti,ab.
30.	or/24-30
31.	17 and 30
32.	16 or 31
33.	Study filter QUAL (A.3.8)
34.	4 and 32 and 33
35.	exp great britain/
36.	(national health service* or nhs*).ti,ab,in.
37.	(english not ((published or publication* or translat* or written or language* or speak* or literature or citation*) adj5 english)).ti,ab.
38.	(gb or "g.b." or britain* or (british* not "british columbia") or uk or "u.k." or united kingdom* or (england* not "new england") or northern ireland* or northern irish* or scotland* or scottish* or ((wales or "south wales") not "new south wales") or welsh*).ti,ab,jw,in.
39	(bath or "bath's" or ((birmingham not alabama*) or ("birmingham's" not alabama*) or bradford or "bradford's" or brighton or "brighton's" or bristol or "bristol's" or carlisle* or "carlisle's" or (cambridge not (massachusetts* or boston* or harvard*)) or ("cambridge's" not (massachusetts* or boston* or harvard*)) or (canterbury not zealand*) or ("canterbury's" not zealand*) or chelmsford or "chelmsford's" or chester or "chester's" or chichester or "chichester's" or coventry or "coventry's" or derby or "derby's" or (durham not (carolina* or nc)) or ("durham's" not (carolina* or nc)) or ely or "ely's" or exeter or "exeter's" or gloucester or "gloucester's" or hereford or "hereford's" or hull or "hull's" or lancaster or "lancaster's" or leeds* or leicester or "leicester's" or (lincoln not nebraska*) or ("lincoln's" not nebraska*) or (liverpool not (new south wales* or nsw)) or ("liverpool's" not (new south wales* or nsw)) or ((london not (ontario* or ont or toronto*)) or ("london's" not (ontario* or ont or toronto*)) or manchester or "manchester's" or (newcastle not (new south wales* or nsw)) or ("newcastle's" not (new south wales* or nsw)) or norwich or "norwich's" or nottingham or "nottingham's" or oxford or "oxford's" or peterborough or "peterborough's" or plymouth or "plymouth's" or portsmouth or "portsmouth's" or preston or "preston's" or ripon or "ripon's" or salford or "salford's" or salisbury or "salisbury's" or sheffield or "sheffield's" or southampton or "southampton's" or st albans or stoke or "stoke's" or sunderland or "sunderland's" or truro or "truro's" or wakefield or "wakefield's" or wells or westminster or "westminster's" or winchester or "winchester's" or wolverhampton or "wolverhampton's" or (worcester not (massachusetts* or boston* or harvard*)) or ("worcester's" not (massachusetts* or boston* or harvard*)) or (york not ("new york*" or ny or ontario* or ont or toronto*)) or ("york's" not

	("new york*" or ny or ontario* or ont or toronto*)))))).ti,ab,in.
40.	(bangor or "bangor's" or cardiff or "cardiff's" or newport or "newport's" or st asaph or "st asaph's" or st davids or swansea or "swansea's").ti,ab,in.
41.	(aberdeen or "aberdeen's" or dundee or "dundee's" or edinburgh or "edinburgh's" or glasgow or "glasgow's" or inverness or (perth not australia*) or ("perth's" not australia*) or stirling or "stirling's").ti,ab,in.
42.	(armagh or "armagh's" or belfast or "belfast's" or lisburn or "lisburn's" or londonderry or "londonderry's" or derry or "derry's" or newry or "newry's").ti,ab,in.
43.	or/35-42
44.	(exp africa/ or exp americas/ or exp antarctic regions/ or exp arctic regions/ or exp asia/ or exp australia/ or exp oceania/) not (exp great britain/ or europe/)
45.	43 not 44
46.	34 and 45
47.	34 not 46
	Date limits: 2002 – 13 April 2017

Embase search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	interpersonal communication/
6.	patient education/
7.	consumer health information/
8.	patient satisfaction/
9.	health personnel attitude/
10.	doctor patient relation/
11.	nurse patient relationship/
12.	human relation/
13.	patient participation/
14.	decision making/
15.	patient preference/
16.	patient attitude/
17.	patient satisfaction/
18.	patient information/
19.	information service/ or information center/ or publication/ or book/ or counseling/ or directive counseling/
20.	or/5-19
21.	patient/ or hospital patient/ or outpatient/
22.	caregiver/ or exp family/ or exp parent/
23.	((patient* or carer* or famil* or parent* or father* or mother* or caregiver* or next of kin) adj6 (attitude* or perspective* or view* or interpret* or understand* or misunderstand* or opinion* or decision* or decid* or belief* or believe* or feeling* or priorit* or perception* or choic* or preferen*)).ti,ab.
24.	((patient* or carer* or famil* or parent* or father* or mother* or caregiver* or next of kin) adj6 (inform* or educat* or learn* or advi?e or knowledge or involve* or support* or counsel* or communicat* or discuss* or convers*)).ti,ab.
25.	((information* or support* or advi?e* or counsel* or knowledge or educat* or psycholog*)

	adj6 (provision* or provide* or deliver* or facilitat* or establish* or arrang* or offer* or need* or access*)).ti,ab.
26.	((patient* or carer* or famil* or parent* or father* or mother* or caregiver* or next of kin) adj6 (resource* or pamphlet* or leaflet* or booklet* or manual* or brochure* or publication* or handout* or website* or web site* or web page* or webpage* or video* or dvd* or internet or computer* or program* or interactive* or email* or e-mail* or wireless or bluetooth or telephone or phone or sms or text*)).ti,ab.
27.	or/21-26
28.	diagnosis/
29.	prognosis/
30.	patient care planning/
31.	palliative therapy/ or terminal care/
32.	(diagnos* or prognos*).ti,ab.
33.	(advance* adj2 (plan* or decision* or directive*)).ti,ab.
34.	((advance* or patient*) adj3 (care or caring) adj3 (continu* or plan*)).ti,ab.
35.	(end of life or terminal* or palliativ*).ti,ab.
36.	or/28-35
37.	27 and 36
38.	20 or 37
39.	Study filter QUAL [A.3.8]
40.	4 and 38 and 39
41.	united kingdom/
42.	(national health service* or nhs*).ti,ab,in,ad.
43.	(english not ((published or publication* or translat* or written or language* or speak* or literature or citation*) adj5 english)).ti,ab.
44.	(gb or "g.b." or britain* or (british* not "british columbia") or uk or "u.k." or united kingdom* or (england* not "new england") or northern ireland* or northern irish* or scotland* or scottish* or ((wales or "south wales") not "new south wales") or welsh*).ti,ab,jw,in,ad.
45.	(bath or "bath's" or ((birmingham not alabama*) or ("birmingham's" not alabama*) or bradford or "bradford's" or brighton or "brighton's" or bristol or "bristol's" or carlisle* or "carlisle's" or (cambridge not (massachusetts* or boston* or harvard*)) or ("cambridge's" not (massachusetts* or boston* or harvard*)) or (canterbury not zealand*) or ("canterbury's" not zealand*) or chelmsford or "chelmsford's" or chester or "chester's" or chichester or "chichester's" or coventry or "coventry's" or derby or "derby's" or (durham not (carolina* or nc)) or ("durham's" not (carolina* or nc)) or ely or "ely's" or exeter or "exeter's" or gloucester or "gloucester's" or hereford or "hereford's" or hull or "hull's" or lancaster or "lancaster's" or leeds* or leicester or "leicester's" or (lincoln not nebraska*) or ("lincoln's" not nebraska*) or (liverpool not (new south wales* or nsw)) or ("liverpool's" not (new south wales* or nsw)) or ((london not (ontario* or ont or toronto*)) or ("london's" not (ontario* or ont or toronto*)) or manchester or "manchester's" or (newcastle not (new south wales* or nsw)) or ("newcastle's" not (new south wales* or nsw)) or norwich or "norwich's" or nottingham or "nottingham's" or oxford or "oxford's" or peterborough or "peterborough's" or plymouth or "plymouth's" or portsmouth or "portsmouth's" or preston or "preston's" or ripon or "ripon's" or salford or "salford's" or salisbury or "salisbury's" or sheffield or "sheffield's" or southampton or "southampton's" or st albans or stoke or "stoke's" or sunderland or "sunderland's" or truro or "truro's" or wakefield or "wakefield's" or wells or westminster or "westminster's" or winchester or "winchester's" or wolverhampton or "wolverhampton's" or (worcester not (massachusetts* or boston* or harvard*)) or ("worcester's" not (massachusetts* or boston* or harvard*)) or (york not ("new york*" or ny or ontario* or ont or toronto*)) or ("york's" not ("new york*" or ny or ontario* or ont or toronto*))))).ti,ab,in,ad.
46.	(bangor or "bangor's" or cardiff or "cardiff's" or newport or "newport's" or st asaph or "st asaph's" or st davids or swansea or "swansea's").ti,ab,in,ad.

47.	(aberdeen or "aberdeen's" or dundee or "dundee's" or edinburgh or "edinburgh's" or glasgow or "glasgow's" or inverness or (perth not australia*) or ("perth's" not australia*) or stirling or "stirling's").ti,ab,in,ad.
48.	(armagh or "armagh's" or belfast or "belfast's" or lisburn or "lisburn's" or londonderry or "londonderry's" or derry or "derry's" or newry or "newry's").ti,ab,in,ad.
49.	or/41-48
50.	(exp "arctic and antarctic"/ or exp oceanic regions/ or exp western hemisphere/ or exp africa/ or exp asia/ or exp "australia and new zealand"/) not (united kingdom/ or europe/)
51.	49 not 50
52.	40 and 51
53.	40 not 52
	Date limits: 2002 – 13 April 2017

CINAHL search terms

S1.	Standard population [A.2.1]
S2.	Excluded study designs and publication types [A.3.1] or (MH "case studies")
S3.	1 not 2
S4.	Limit S3 to English language
S5.	MH communication
S6.	MH patient education
S7.	MH consumer health information
S8.	MH patient satisfaction
S9.	MH attitude of health personnel
S10.	MH physician-patient relations
S11.	(MH "nurse-patient relations") or (MH "professional-patient relations")
S12.	(MH "professional-family relations")
S13.	(MH "consumer participation")
S14.	MH decision making
S15.	(MH "pamphlets")
S16.	MH information Services+
S17.	MH books+
S18.	MH counseling
S19.	S5 or S6 or S7 or S8 or S9 or S10 or S11 or S12 or S13 or S14 or S15 or S16 or S17 or S18
S20.	MH patients or MH inpatients or MH outpatients or MH caregivers or MH family+ or MH parents+ or MH guardianship, legal
S21.	ti (((patient* or carer* or famil* or parent* or father* or mother* or caregiver* or next of kin) n6 (attitude* or perspective* or view* or interpret* or understand* or misunderstand* or opinion* or decision* or decid* or belief* or believe* or feeling* or priorit* or perception* or choic* or preferen*))) or ab (((patient* or carer* or famil* or parent* or father* or mother* or caregiver* or next of kin) n6 (attitude* or perspective* or view* or interpret* or understand* or misunderstand* or opinion* or decision* or decid* or belief* or believe* or feeling* or priorit* or perception* or choic* or preferen*)))
S22.	ti (((patient* or carer* or famil* or parent* or father* or mother* or caregiver* or next of kin) n6 (inform* or educat* or learn* or advi?e or knowledge or involve* or support* or counsel* or communicat* or discuss* or convers*))) or AB (((patient* or carer* or famil* or parent* or father* or mother* or caregiver* or next of kin) n6 (inform* or educat* or learn* or advi?e or knowledge or involve* or support* or counsel* or communicat* or discuss* or convers*)))
S23.	ti (((information* or support* or advi?e* or counsel* or knowledge or educat* or psycholog*) n6 (provision* or provide* or deliver* or facilitat* or establish* or arrang* or offer* or need*

	or access*))) or ab (((information* or support* or advi?e* or counsel* or knowledge or educat* or psycholog*) n6 (provision* or provide* or deliver* or facilitat* or establish* or arrang* or offer* or need* or access*)))
S24.	ti (((patient* or carer* or famil* or parent* or father* or mother* or caregiver* or next of kin) n6 (resource* or pamphlet* or leaflet* or booklet* or manual* or brochure* or publication* or handout* or website* or web site* or web page* or webpage* or video* or dvd* or internet or computer* or program* or interactive* or email* or e-mail* or wireless or bluetooth or telephone or phone or sms or text*))) or ab (((patient* or carer* or famil* or parent* or father* or mother* or caregiver* or next of kin) n6 (resource* or pamphlet* or leaflet* or booklet* or manual* or brochure* or publication* or handout* or website* or web site* or web page* or webpage* or video* or dvd* or internet or computer* or program* or interactive* or email* or e-mail* or wireless or bluetooth or telephone or phone or sms or text*)))
S25.	S20 or S21 or S22 or S23 or S24
S26.	(MH "diagnosis+")
S27.	(MH "prognosis+")
S28.	(MH "advance care planning")
S29.	(MH "palliative care")
S30.	(MH "terminal care+")
S31.	ti ((diagnos* or prognos*)) or ab ((diagnos* or prognos*))
S32.	ti ((advance* n2 (plan* or decision* or directive*))) or ab ((advance* n2 (plan* or decision* or directive*)))
S33.	ti (((advance* or patient*) n3 (care or caring) n3 (continu* or plan*))) or ab (((advance* or patient*) n3 (care or caring) n3 (continu* or plan*)))
S34.	ti ((end of life or terminal* or palliativ*)) or ab ((end of life or terminal* or palliativ*))
S35.	S26 or S27 or S28 or S29 or S30 or S31 or S32 or S33 or S34
S36.	S25 and S35
S37.	S19 or S36
S38.	S4 and S37
S39.	Study filter QUAL [A.3.8]
S40.	S38 and S39
	Date limits: 2002 – 13 April 2017

PyscINFO search terms

1.	((if(("heart failure" or "cardiomyopathy, dilated" or "shock, carcinogenic" or "ventricular dysfunction" or "cardiac output, low")) or (su.exact.explode("heart") and su.exact.explode("failure")) or ti(((heart or cardiac or myocardial) near/2 (failure or decompensation))) or ti("carcinogenic shock") or ti(((dilated or congestive) near/2 cardiomyopath*)) or ti(((ventricular or ventricle*) near/2 (failure or insufficien* or dysfunction*))) or ti,ab((congestive or acute or decompensat* or chronic) near/2 "heart failure") or ti,ab(("left ventricular" or "left ventricle") near/2 (failure or insufficien* or dysfunction*)) or ti(lsvd) or ab(lsvd)) and ((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 hemic or ethic or phenomenolog* or grounded theory or constant compar* or (thematic* near/3 analys*) or theorethical-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*))) and su.exact("books" or "communication barriers" or "patient education as topic" or "communication" or "professional-patient relations" or "nurse-patient relations" or "directive counseling" or "decision making" or "consumer health information" or "patient satisfaction" or "pamphlets" or "publications" or

2.	"physician-patient relations" or "professional-family relations" or "information services" or "attitude of health personnel" or "counseling")) and (su.exact("terminal care" or "diagnosis" or "palliative care" or "advance care planning" or "prognosis") or ti,ab(diagnos* or prognos*) or ti,ab(advance* near/2 (plan* or decision* or directive*)) or ((advance* or patient*) near/3 (care or caring) near/3 (continu* or plan*)) or ("end of life" or terminal* or palliativ*)) and (su.exact("parents" or "patients" or "caregivers" or "family" or "inpatients" or "legal guardians" or "outpatients") or ti,ab((patient* or carer* or famil* or parent* or father* or mother* or caregiver* or "next of kin") near/6 (attitude* or perspective* or view* or interpret* or understand* or misunderstand* or opinion* or decision* or decid* or belief* or believe* or feeling* or priorit* or perception* or choic* or preferen*)) or ti,ab((patient* or carer* or famil* or parent* or father* or mother* or caregiver* or "next of kin") near/6 (inform* or educat* or learn* or advi?e or knowledge or involve* or support* or counsel* or communicat* or discuss* or convers*)) or ti,ab((information* or support* or advi?e* or counsel* or knowledge or educat* or psycholog*) near/6 (provision* or provide* or deliver* or facilitat* or establish* or arrang* or offer* or need* or access*)) or ((patient* or carer* or famil* or parent* or father* or mother* or caregiver* or "next of kin") near/6 (resource* or pamphlet* or leaflet* or booklet* or manual* or brochure* or publication* or handout* or website* or webpage* or video* or dvd* or internet or computer* or program* or interactive* or email* or e-mail* or wireless or bluetooth or telephone or phone or isms or text*)) or ti,ab((patient* or carer* or famil* or parent* or father* or mother* or caregiver* or "next of kin") near/6 (web near/1 page*)) or ti,ab((patient* or carer* or famil* or parent* or father* or mother* or caregiver* or "next of kin") near/6 (web near/1 site*))))
2.	Date limits: 2002 – 13 April 2017

A.4.5 Coronary revascularisation

- What is the clinical and cost effectiveness of coronary revascularisation with coronary artery bypass grafting or angioplasty in people with heart failure?

Medline search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	revascular*.ti,ab.
6.	myocardial revascularization/
7.	exp angioplasty/
8.	angioplast*.ti,ab.
9.	exp percutaneous coronary intervention/
10.	(percutaneous adj5 (coronary or intervention)).ti,ab.
11.	(ptca or pci).ti,ab.
12.	exp coronary artery bypass/
13.	(bypass adj5 (surg* or graft* or coronary or arter*)).ti,ab.
14.	(cabg or cab or acb).ti,ab.
15.	or/5-14
16.	Study filters RCT [A.3.2] or SR [A.3.3]
17.	4 and 15 and 16
	Date limits: 2002 – 6 December 2017

Embase search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]

3.	1 not 2
4.	Limit 3 to English language
5.	revascular*.ti,ab.
6.	heart muscle revascularization/
7.	exp angioplasty/
8.	angioplast*.ti,ab.
9.	exp percutaneous coronary intervention/
10.	(percutaneous adj5 (coronary or intervention)).ti,ab.
11.	(ptca or pci).ti,ab.
12.	coronary artery bypass graft/
13.	(bypass adj5 (surg* or graft* or coronary or arter*)).ti,ab.
14.	(cabg or cab or acb).ti,ab.
15.	or/5-14
16.	Study filters RCT [A.3.2] or SR [A.3.3]
17.	4 and 15 and 16
	Date limits: 2002 – 6 December 2017

Cochrane search terms

#1.	Standard population [A.2.1]
#2.	revascular*:ti,ab,kw
#3.	MeSH descriptor: [myocardial revascularization] explode all trees
#4.	MeSH descriptor: [angioplasty] explode all trees
#5.	angioplast*:ti,ab
#6.	MeSH descriptor: [percutaneous coronary intervention] explode all trees
#7.	(percutaneous near/5 (coronary or intervention)):ti,ab
#8.	(ptca or pci):ti,ab
#9.	MeSH descriptor: [coronary artery bypass] this term only
#10.	(bypass near/5 (surg* or graft* or coronary or arter*)):ti,ab
#11.	(cabg or cab or acb):ti,ab
#12.	(or #2-#11)
#13.	#1 and #12
	Date limits: 2002 – 6 December 2017

A.4.6 Diuretics

- Which route of administration of diuretics (intravenous (IV), subcutaneous or oral) is most clinically and cost effective in people with advanced heart failure who are in the community, including patients receiving palliative care?

Medline search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	((oral* or subcut* or IV or intravenous* or iv or infusion* or drip or drips or augment* or sequential* or loop or "high ceiling") adj6 diuretic*).ti,ab.
6.	(augment* adj diuresis).ti,ab.
7.	*diuretics/

8.	sodium potassium chloride symporter inhibitors/
9.	furosemide/
10.	(furosemid* or frusemid* or diuresal or frusolerrolon or furanthril or furantral or fursemide or fusid or lasix).ti,ab.
11.	bumetanide/
12.	(bumetanide or bumethanide or bumex or burinex or bumedyl or drenural or fordiuran or miccil).ti,ab.
13.	(torsemide or torasemide or torem or demadex).ti,ab.
14.	metolazone/
15.	(metolazone or microx or mykrox or zaroxolyn or diulo).ti,ab.
16.	thiazides/
17.	thiazide*.ti,ab.
18.	bendroflumethiazide/
19.	(bendroflumethiazide or aprinox or neo-naclex or bendrofluazide or benzide or benzidem or berkozide or esberizid or centyl or naturetin or naturine or neo-naclex or neonaclex or pluryl or urizid).ti,ab.
20.	chlorthalidone/
21.	(chlortalidone or chlorphthalidolone or chlorthalidone or hygroton or oxodoline or phthalamudine or thalitone).ti,ab.
22.	cyclopenthiazide/
23.	(cyclopenthiazide or cyclomethiazide or navidrex or navispare).ti,ab.
24.	indapamide/
25.	(indapamide or metindamide or cardide or indipam or natrilix or rawel or tensaid).ti,ab.
26.	xipamide/
27.	(xipamide or xipamid or diurexan).ti,ab.
28.	or/5-27
29.	Study filters RCT [A.3.2] or SR [A.3.3]
30.	4 and 28 and 29
	Date limits: 1946– 1 September 2017

Embase search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	((oral* or subcut* or IV or intravenous* or iv or infusion* or drip or drips or augment* or sequential* or loop or "high ceiling") adj6 diuretic*).ti,ab.
6.	(augment* adj diuresis).ti,ab.
7.	*diuretic agent/
8.	loop diuretic agent/ or bumetanide/ or furosemide/ or furosemide plus spironolactone/ or furosemide plus triamterene/ or torasemide/
9.	(furosemid* or frusemid* or diuresal or frusolerrolon or furanthril or furantral or fursemide or fusid or lasix).ti,ab.
10.	(bumetanide or bumethanide or bumex or burinex or bumedyl or drenural or fordiuran or miccil).ti,ab.
11.	(torsemide or torasemide or torem or demadex).ti,ab.
12.	metolazone/

13.	(metolazone or microx or mykrox or zaroxolyn or diulo).ti,ab.
14.	thiazide diuretic agent/
15.	thiazide*.ti,ab.
16.	bendroflumethiazide/
17.	(bendroflumethiazide or aprinox or neo-naclex or bendrofluazide or benzide or benzidem or berkozide or esberizid or centyl or naturetin or naturine or neo-naclex or neonaclex or pluryl or urizid).ti,ab.
18.	chlortalidone/
19.	(chlortalidone or chlorphthalidolone or chlorthalidone or hygroton or oxodoline or phthalamudine or thalitone).ti,ab.
20.	cyclopenthiazide/
21.	(cyclopenthiazide or cyclomethiazide or navidrex or navispare).ti,ab.
22.	indapamide/
23.	(indapamide or metindamide or cardide or indipam or natrilix or rawel or tensaid).ti,ab.
24.	xipamide/
25.	(xipamide or xipamid or diurexan).ti,ab.
26.	or/5-25
27.	Study filters RCT [A.3.2] or SR [A.3.3]
28.	4 and 26 and 27
	Date limits: 1974 – 1 September 2017

Cochrane search terms

#1.	Standard population [A.2.1]
#2.	((oral* or subcut* or IV or intravenous* or iv or infusion* or drip or drips or augment* or sequential* or loop or "high ceiling") near/6 diuretic*):ti,ab
#3.	(augment* next diuresis):ti,ab
#4.	MeSH descriptor: [diuretics] explode all trees
#5.	MeSH descriptor: [sodium potassium chloride symporter inhibitors] this term only
#6.	MeSH descriptor: [furosemide] this term only
#7.	(furosemid* or frusemid* or diuresal or frusolerrolon or furanthril or furantral or fursemide or fusid or lasix):ti,ab
#8.	MeSH descriptor: [bumetanide] this term only
#9.	(bumetanide or bumethanide or bumex or burinex or bumedyl or drenural or fordiuran or miccil):ti,ab
#10.	(torsemide or torasemide or torem or demadex):ti,ab
#11.	MeSH descriptor: [metolazone] this term only
#12.	(metolazone or microx or mykrox or zaroxolyn or diulo):ti,ab
#13.	MeSH descriptor: [thiazides] this term only
#14.	thiazide*:ti,ab
#15.	MeSH descriptor: [bendroflumethiazide] this term only
#16.	(bendroflumethiazide or aprinox or neo-naclex or bendrofluazide or benzide or benzidem or berkozide or esberizid or centyl or naturetin or naturine or neo-naclex or neonaclex or pluryl or urizid):ti,ab
#17.	MeSH descriptor: [chlorthalidone] this term only
#18.	(chlortalidone or chlorphthalidolone or chlorthalidone or hygroton or oxodoline or phthalamudine or thalitone):ti,ab
#19.	MeSH descriptor: [cyclopenthiazide] this term only

#20.	(cyclopenthiazide or cyclomethiazide or navidrex or navispare):ti,ab
#21.	MeSH descriptor: [indapamide] this term only
#22.	(indapamide or metindamide or cardide or indipam or natrilix or rawel or tensaid):ti,ab
#23.	MeSH descriptor: [xipamide] this term only
#24.	(xipamide or xipamid or diurexan):ti,ab
#25.	(or #2-#24)
#26.	#1 and #25
	Date limits: Inception - 1 September 2017

A.4.7 Domiciliary Oxygen

- What is the effectiveness of domiciliary oxygen therapy in people with advanced heart failure?

Medline search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	oxygen inhalation therapy/
6.	((home or therapy) adj3 respirat*).ti,ab.
7.	((domiciliary or home or nocturnal* or long-term or palliativ*) adj3 oxygen).ti,ab.
8.	(oxygen adj3 therap*).ti,ab.
9.	(hot or ltot).ti,ab.
10.	or/5-9
11.	Study filters RCT [A.3.2] or SR (A.3.3)
12.	4 and 10 and 11
	Date limits: 1946 – 21 April 2017

Embase search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	oxygen therapy/
6.	((home or therapy) adj3 respirat*).ti,ab.
7.	((domiciliary or home or nocturnal* or long-term or palliativ*) adj3 oxygen).ti,ab.
8.	(oxygen adj3 therap*).ti,ab.
9.	(hot or ltot).ti,ab.
10.	or/5-9
11.	Study filters RCT [A.3.2] or SR [A.3.3]
12.	4 and 10 and 11
13.	Date limits: 1974 – 21 April 2017

Cochrane search terms

#1.	Standard population [A.2.1]
#2.	MeSH descriptor: [oxygen inhalation therapy] this term only
#3.	((home or therapy) near/3 respirat*):ti,ab
#4.	((domiciliary or home or nocturnal* or long-term or palliativ*) near/3 oxygen):ti,ab

#5.	(oxygen near/3 therap*):ti,ab
#6.	(hot or ltot):ti,ab
#7.	#2 or #3 or #4 or #5 or #6
#8.	#1 and #7
	Date limits: Inception – 21 April 2017

A.4.8 Implantable cardiac defibrillators

- What criteria should determine when to discuss defibrillator deactivation?

Medline search terms

1.	Standard population [A.2.1]
2.	(palliat* or terminal* or dying* or eolc or death).ti,ab.
3.	(end adj2 life).ti,ab.
4.	((long term or longterm) adj2 (care* or caring or ill*)).ti,ab.
5.	(advance* adj2 (plan* or decision* or directive*)).ti,ab.
6.	terminal care/ or palliative care/ or exp advance care planning/ or long-term care/ or *patient care planning/
7.	death, sudden cardiac/
8.	or/2-7
9.	"attitude of health personnel"/ or decision making/ or patient preference/ or health knowledge, attitudes, practice/ or informed consent/ or patient participation/ or patient satisfaction/ or attitude to health/ or patient education as topic/ or consumer health information/
10.	communication/
11.	nurse-patient relations/ or professional-family relations/ or professional-patient relations/ or physician-patient relations/
12.	((consumer* or client* or resident* or patient* or spouse* or wife or wives or husband* or carer* or caregiver* or care giver* or significant other* or family or families or individual* or next of kin or partner* or sibling* or brother* or sister* or relative or relatives or mother* or daughter* or father* or son or sons) adj4 (participat* or satisf* or educat* or attitude* or preference* or decision* or deciding or decide* or consent* or communicat* or empower* or perspective* or view* or interpret* or wish* or need* or understand* or misunderstand* or opinion* or belief* or believe* or feeling* or perception* or choice* or inform* or learn* or advi?e or knowledge or involve* or support* or expectation* or experience* or counsel* or facilitat* or barrier*)).ti,ab.
13.	((personnel or doctor* or nurse* or professional* or physician* or practitioner* or GP* or psychologist* or consultant* or cardiologist* or health worker* or geriatrician* or psychologist* or counselor* or counsellor*) adj4 (participat* or satisf* or educat* or attitude* or preference* or decision* or deciding or decide* or consent* or communicat* or empower* or perspective* or view* or interpret* or wish* or need* or understand* or misunderstand* or opinion* or belief* or believe* or feeling* or perception* or choice* or inform* or learn* or advi?e or knowledge or involve* or support* or expectation* or experience* or counsel* or facilitat* or barrier*)).ti,ab.
14.	((interdisciplin* or inter-disciplin* or interprofession* or inter-profession* or multidisciplin* or multi-disciplin* or multi-profession* or multiprofession* or transprofession* or trans-profession* or combin* or integrat* or network*) adj2 (work* or team* or care or ward or wards) adj4 (participat* or satisf* or educat* or attitude* or preference* or decision* or deciding or decide* or consent* or communicat* or empower* or perspective* or view* or interpret* or wish* or need* or understand* or misunderstand* or opinion* or belief* or believe* or feeling* or perception* or choice* or inform* or learn* or advi?e or knowledge or involve* or support* or expectation* or experience* or counsel* or facilitat* or barrier*)).ti,ab.

15.	((share* or sharing or make* or making* or made or agree* or participat* or support* or collaborat* or joint or inform*) adj2 decision*).ti,ab.
16.	informed consent.ti,ab.
17.	(information* adj2 support*).ti,ab.
18.	or/9-17
19.	1 or 8 or 18
20.	Excluded study designs and publication types [A.3.1]
21.	19 not 20
22.	Limit 21 to English language
23.	(defibrillat* or icd*).ti,ab.
24.	defibrillators/ or defibrillators, implantable/
25.	((cardiovascular or cardiac or cardio) adj2 implant* adj3 device*).ti,ab.
26.	cied*.ti,ab.
27.	or/23-26
28.	Study filter QUAL [A.3.8]
29.	22 and 27 and 28
30.	exp great britain/
31.	(national health service* or nhs*).ti,ab,in.
32.	(english not ((published or publication* or translat* or written or language* or speak* or literature or citation*) adj5 english)).ti,ab.
33.	(gb or "g.b." or britain* or (british* not "british columbia") or uk or "u.k." or united kingdom* or (england* not "new england") or northern ireland* or northern irish* or scotland* or scottish* or ((wales or "south wales") not "new south wales") or welsh*).ti,ab,jw,in.
34.	(bath or "bath's" or ((birmingham not alabama*) or ("birmingham's" not alabama*) or bradford or "bradford's" or brighton or "brighton's" or bristol or "bristol's" or carlisle* or "carlisle's" or (cambridge not (massachusetts* or boston* or harvard*)) or ("cambridge's" not (massachusetts* or boston* or harvard*)) or (canterbury not zealand*) or ("canterbury's" not zealand*) or chelmsford or "chelmsford's" or chester or "chester's" or chichester or "chichester's" or coventry or "coventry's" or derby or "derby's" or (durham not (carolina* or nc)) or ("durham's" not (carolina* or nc)) or ely or "ely's" or exeter or "exeter's" or gloucester or "gloucester's" or hereford or "hereford's" or hull or "hull's" or lancaster or "lancaster's" or leeds* or leicester or "leicester's" or (lincoln not nebraska*) or ("lincoln's" not nebraska*) or (liverpool not (new south wales* or nsw)) or ("liverpool's" not (new south wales* or nsw)) or ((london not (ontario* or ont or toronto*)) or ("london's" not (ontario* or ont or toronto*)) or manchester or "manchester's" or (newcastle not (new south wales* or nsw)) or ("newcastle's" not (new south wales* or nsw)) or norwich or "norwich's" or nottingham or "nottingham's" or oxford or "oxford's" or peterborough or "peterborough's" or plymouth or "plymouth's" or portsmouth or "portsmouth's" or preston or "preston's" or ripon or "ripon's" or salford or "salford's" or salisbury or "salisbury's" or sheffield or "sheffield's" or southampton or "southampton's" or st albans or stoke or "stoke's" or sunderland or "sunderland's" or truro or "truro's" or wakefield or "wakefield's" or wells or westminster or "westminster's" or winchester or "winchester's" or wolverhampton or "wolverhampton's" or (worcester not (massachusetts* or boston* or harvard*)) or ("worcester's" not (massachusetts* or boston* or harvard*)) or (york not ("new york*" or ny or ontario* or ont or toronto*)) or ("york's" not ("new york*" or ny or ontario* or ont or toronto*)))))).ti,ab,in.
35.	(bangor or "bangor's" or cardiff or "cardiff's" or newport or "newport's" or st asaph or "st asaph's" or st davids or swansea or "swansea's").ti,ab,in.
36.	(aberdeen or "aberdeen's" or dundee or "dundee's" or edinburgh or "edinburgh's" or glasgow or "glasgow's" or inverness or (perth not australia*) or ("perth's" not australia*) or stirling or "stirling's").ti,ab,in.
37.	(armagh or "armagh's" or belfast or "belfast's" or lisburn or "lisburn's" or londonderry or

	"londonderry's" or derry or "derry's" or newry or "newry's").ti,ab,in.
38.	or/30-37
39.	(exp africa/ or exp americas/ or exp antarctic regions/ or exp arctic regions/ or exp asia/ or exp australia/ or exp oceania/) not (exp great britain/ or europe/)
40.	38 not 39
41.	29 and 40
42.	29 not 41
	Date limits: 2002 – 21 July 2017

Embase search terms

1.	Standard population [A.2.1]
2.	(palliat* or terminal* or dying or eolc or death).ti,ab.
3.	(end adj2 life).ti,ab.
4.	((long term or longterm) adj2 (care* or caring or ill*)).ti,ab.
5.	(advance* adj2 (plan* or decision* or directive*)).ti,ab.
6.	terminal care/ or advance care planning/ or palliative therapy/ or long term care/ or *patient care planning/
7.	sudden cardiac death/
8.	or/2-7
9.	interpersonal communication/ or patient education/ or consumer health information/ or patient satisfaction/ or health personnel attitude/ or patient participation/ or decision making/ or patient preference/ or patient attitude/ or patient information/ or attitude to health/ or informed consent/
10.	doctor patient relation/ or nurse patient relationship/
11.	((consumer* or client* or resident* or patient* or spouse* or wife or wives or husband* or carer* or caregiver* or care giver* or significant other* or family or families or individual* or next of kin or partner* or sibling* or brother* or sister* or relative or relatives or mother* or daughter* or father* or son or sons) adj4 (participat* or satisf* or educat* or attitude* or preference* or decision* or deciding or decide* or consent* or communicat* or empower* or perspective* or view* or interpret* or wish* or need* or understand* or misunderstand* or opinion* or belief* or believe* or feeling* or perception* or choice* or inform* or learn* or advi?e or knowledge or involve* or support* or expectation* or experience* or counsel* or facilitat* or barrier*)).ti,ab.
12.	((personnel or doctor* or nurse* or professional* or physician* or practitioner* or GP* or psychologist* or consultant* or cardiologist* or health worker* or geriatrician* or psychologist* or counselor* or counsellor*) adj4 (participat* or satisf* or educat* or attitude* or preference* or decision* or deciding or decide* or consent* or communicat* or empower* or perspective* or view* or interpret* or wish* or need* or understand* or misunderstand* or opinion* or belief* or believe* or feeling* or perception* or choice* or inform* or learn* or advi?e or knowledge or involve* or support* or expectation* or experience* or counsel* or facilitat* or barrier*)).ti,ab.
13.	((interdisciplin* or inter-disciplin* or interprofession* or inter-profession* or multidisciplin* or multi-disciplin* or multi-profession* or multiprofession* or transprofession* or trans-profession* or combin* or integrat* or network*) adj2 (work* or team* or care or ward or wards) adj4 (participat* or satisf* or educat* or attitude* or preference* or decision* or deciding or decide* or consent* or communicat* or empower* or perspective* or view* or interpret* or wish* or need* or understand* or misunderstand* or opinion* or belief* or believe* or feeling* or perception* or choice* or inform* or learn* or advi?e or knowledge or involve* or support* or expectation* or experience* or counsel* or facilitat* or barrier*)).ti,ab.
14.	((share* or sharing or make* or making* or made or agree* or participat* or support* or collaborat* or joint or inform*) adj2 decision*).ti,ab.

15.	informed consent.ti,ab.
16.	(information* adj2 support*).ti,ab.
17.	or/9-16
18.	1 or 8 or 17
19.	Excluded study designs and publication types [A.3.1]
20.	18 not 19
21.	Limit 20 to English language
22.	(defibrillat* or ICD*).ti,ab.
23.	defibrillator/ or implantable cardioverter defibrillator/ or internal defibrillator/
24.	((cardiovascular or cardiac or cardio) adj2 implant* adj3 device*).ti,ab.
25.	cied*.ti,ab.
26.	or/22-25
27.	Study filter QUAL [A.3.8]
28.	21 and 26 and 27
29.	united kingdom/
30.	(national health service* or nhs*).ti,ab,in,ad.
31.	(english not ((published or publication* or translat* or written or language* or speak* or literature or citation*) adj5 english)).ti,ab.
32.	(gb or "g.b." or britain* or (british* not "british columbia") or uk or "u.k." or united kingdom* or (england* not "new england") or northern ireland* or northern irish* or scotland* or scottish* or ((wales or "south wales") not "new south wales") or welsh*).ti,ab,jw,in,ad.
33.	(bath or "bath's" or ((birmingham not alabama*) or ("birmingham's" not alabama*) or bradford or "bradford's" or brighton or "brighton's" or bristol or "bristol's" or carlisle* or "carlisle's" or (cambridge not (massachusetts* or boston* or harvard*)) or ("cambridge's" not (massachusetts* or boston* or harvard*)) or (canterbury not zealand*) or ("canterbury's" not zealand*) or chelmsford or "chelmsford's" or chester or "chester's" or chichester or "chichester's" or coventry or "coventry's" or derby or "derby's" or (durham not (carolina* or nc)) or ("durham's" not (carolina* or nc)) or ely or "ely's" or exeter or "exeter's" or gloucester or "gloucester's" or hereford or "hereford's" or hull or "hull's" or lancaster or "lancaster's" or leeds* or leicester or "leicester's" or (lincoln not nebraska*) or ("lincoln's" not nebraska*) or (liverpool not (new south wales* or nsw)) or ("liverpool's" not (new south wales* or nsw)) or ((london not (ontario* or ont or toronto*)) or ("london's" not (ontario* or ont or toronto*)) or manchester or "manchester's" or (newcastle not (new south wales* or nsw)) or ("newcastle's" not (new south wales* or nsw)) or norwich or "norwich's" or nottingham or "nottingham's" or oxford or "oxford's" or peterborough or "peterborough's" or plymouth or "plymouth's" or portsmouth or "portsmouth's" or preston or "preston's" or ripon or "ripon's" or salford or "salford's" or salisbury or "salisbury's" or sheffield or "sheffield's" or southampton or "southampton's" or st albans or stoke or "stoke's" or sunderland or "sunderland's" or truro or "truro's" or wakefield or "wakefield's" or wells or westminster or "westminster's" or winchester or "winchester's" or wolverhampton or "wolverhampton's" or (worcester not (massachusetts* or boston* or harvard*)) or ("worcester's" not (massachusetts* or boston* or harvard*)) or (york not ("new york*" or ny or ontario* or ont or toronto*)) or ("york's" not ("new york*" or ny or ontario* or ont or toronto*)))))).ti,ab,in,ad.
34.	(bangor or "bangor's" or cardiff or "cardiff's" or newport or "newport's" or st asaph or "st asaph's" or st davids or swansea or "swansea's").ti,ab,in,ad.
35.	(aberdeen or "aberdeen's" or dundee or "dundee's" or edinburgh or "edinburgh's" or glasgow or "glasgow's" or inverness or (perth not australia*) or ("perth's" not australia*) or stirling or "stirling's").ti,ab,in,ad.
36.	(armagh or "armagh's" or belfast or "belfast's" or lisburn or "lisburn's" or londonderry or "londonderry's" or derry or "derry's" or newry or "newry's").ti,ab,in,ad.
37.	or/29-36

38.	(exp "arctic and antarctic"/ or exp oceanic regions/ or exp western hemisphere/ or exp africa/ or exp asia/ or exp "australia and new zealand"/) not (united kingdom/ or europe/)
39.	37 not 38
40.	28 and 39
41.	28 not 40
	Date limits: 2002 – 21 July 2017

PyscINFO search terms

1.	(((((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*))) and la.exact("eng")) and ((ti,ab((cardiovascular or cardiac or cardio) near/2 implant* near/3 device*) or ti,ab(defibrillat* or icd* or cied*) or su.exact("defibrillators" or "defibrillators, implantable")) and la.exact("eng"))) not ((su.exact.explode("rodents") or su.exact.explode("mice") or (su.exact("animals") not (su.exact("human males") or su.exact("human females"))) or ti(rat or rats or mouse or mice)) and la.exact("eng"))) and la.exact("English")
	Date limits: 2002- 21 July 2017

CINAHL search terms

S1.	Standard population [A.2.1]
S2.	ti ((eolc or terminal* or palliativ* or dying or death)) or ab ((eolc or terminal* or palliativ* or eolc or dying or death))
S3.	ti ((end n2 life) or ab (end n2 life))
S4.	ti ((long term or longterm) n2 (care* or caring or ill*)) or ab ((long term or longterm) n2 (care* or caring or ill*))
S5.	ti ((advance* n2 (plan* or decision* or directive*))) or ab ((advance* n2 (plan* or decision* or directive*)))
S6.	(MH "terminal care")
S7.	(MH "palliative care")
S8.	(MH "advance care planning")
S9.	(MH "long term care")
S10.	(MH "patient care plans")
S11.	(MH "death, sudden, cardiac")
S12.	S2 or S3 or S4 or S5 or S6 or S7 or S8 or S9 or S10 or S11
S13.	(MH "attitude of health personnel+")
S14.	(MH "consent")
S15.	(MH "attitude of health personnel") or (MH "health knowledge")
S16.	(MH "decision making, patient") or (MH "decision making, family") or (MH "decision making, clinical")
S17.	(MH "consumer participation")
S18.	(MH "patient satisfaction")
S19.	(MH "attitude to health+")
S20.	(MH "patient education")
S21.	(MH "consumer health information") or (MH "health information")

S22.	(MH "communication")
S23.	(MH "nurse-patient relations") or (MH "professional-patient relations") or (MH "physician-patient relations")
S24.	(MH "professional-family relations")
S25.	(MH "decision making")
S26.	ti ((consumer* or client* or resident* or patient* or spouse* or wife or wives or husband* or carer* or caregiver* or care giver* or significant other* or family or families or individual* or next of kin or partner* or sibling* or brother* or sister* or relative or relatives or mother* or daughter* or father* or son or sons) n4 (participat* or satisf* or educat* or attitude* or preference* or decision* or deciding or decide* or consent* or communicat* or empower* or perspective* or view* or interpret* or wish* or need* or understand* or misunderstand* or opinion* or belief* or believe* or feeling* or perception* or choice* or inform* or learn* or advi?e or knowledge or involve* or support* or expectation* or experience* or counsel* or facilitat* or barrier*)) or ab ((consumer* or client* or resident* or patient* or spouse* or wife or wives or husband* or carer* or caregiver* or care giver* or significant other* or family or families or individual* or next of kin or partner* or sibling* or brother* or sister* or relative or relatives or mother* or daughter* or father* or son or sons) n4 (participat* or satisf* or educat* or attitude* or preference* or decision* or deciding or decide* or consent* or communicat* or empower* or perspective* or view* or interpret* or wish* or need* or understand* or misunderstand* or opinion* or belief* or believe* or feeling* or perception* or choice* or inform* or learn* or advi?e or knowledge or involve* or support* or expectation* or experience* or counsel* or facilitat* or barrier*))
S27.	ti ((personnel or doctor* or nurse* or professional* or physician* or practitioner* or gp* or psychologist* or consultant* or cardiologist* or health worker* or geriatrician* or psychologist* or counselor* or counsellor*) n4 (participat* or satisf* or educat* or attitude* or preference* or decision* or deciding or decide* or consent* or communicat* or empower* or perspective* or view* or interpret* or wish* or need* or understand* or misunderstand* or opinion* or belief* or believe* or feeling* or perception* or choice* or inform* or learn* or advi?e or knowledge or involve* or support* or expectation* or experience* or counsel* or facilitat* or barrier*)) or ab ((personnel or doctor* or nurse* or professional* or physician* or practitioner* or gp* or psychologist* or consultant* or cardiologist* or health worker* or geriatrician* or psychologist* or counselor* or counsellor*) n4 (participat* or satisf* or educat* or attitude* or preference* or decision* or deciding or decide* or consent* or communicat* or empower* or perspective* or view* or interpret* or wish* or need* or understand* or misunderstand* or opinion* or belief* or believe* or feeling* or perception* or choice* or inform* or learn* or advi?e or knowledge or involve* or support* or expectation* or experience* or counsel* or facilitat* or barrier*))
S28.	ti ((interdisciplin* or inter-disciplin* or interprofession* or inter-profession* or multidisciplin* or multi-disciplin* or multi-profession* or multiprofession* or transprofession* or trans-profession* or combin* or integrat* or network*) n2 (work* or team* or care or ward or wards) n4 (participat* or satisf* or educat* or attitude* or preference* or decision* or deciding or decide* or consent* or communicat* or empower* or perspective* or view* or interpret* or wish* or need* or understand* or misunderstand* or opinion* or belief* or believe* or feeling* or perception* or choice* or inform* or learn* or advi?e or knowledge or involve* or support* or expectation* or experience* or counsel* or facilitat* or barrier*)) or ab ((interdisciplin* or inter-disciplin* or interprofession* or inter-profession* or multidisciplin* or multi-disciplin* or multi-profession* or multiprofession* or transprofession* or trans-profession* or combin* or integrat* or network*) n2 (work* or team* or care or ward#) n4 (participat* or satisf* or educat* or attitude* or preference* or decision* or deciding or decide* or consent* or communicat* or empower* or perspective* or view* or interpret* or wish* or need* or understand* or misunderstand* or opinion* or belief* or believe* or feeling* or perception* or choice* or inform* or learn* or advi?e or knowledge or involve* or support* or expectation* or experience* or counsel* or facilitat* or barrier*))
S29.	ti ((share* or sharing or make* or making* or made or agree* or participat* or support* or collaborat* or joint or inform*) n2 decision*) or ab ((share* or sharing or make* or making* or made or agree* or participat* or support* or collaborat* or joint or inform*) n2 decision*)

S30.	ti informed consent or ab informed consent
S31.	ti (information* n2 support*) or ab (information* n2 support*)
S32.	S13 or S14 or S15 or S16 or S17 or S18 or S19 or S20 or S21 or S22 or S23 or S24 or S25 or S26 or S27 or S28 or S29 or S30 or S31
S33.	S1 or S12 or S32
S34.	Excluded study designs and publication types [A.3.1] or ("Case Studies")
S35.	S33 not S34
S36.	Limit S35 to English language
S37.	ti (defibrillat* or icd*) or ab (defibrillat* or icd*)
S38.	(MH "defibrillators") or (MH "defibrillators, implantable")
S39.	ti ((cardiovascular or cardiac or cardio) n2 implant* n3 device*) or ab ((cardiovascular or cardiac or cardio) n2 implant* n3 device*)
S40.	ti cied* or ab cied*
S41.	S37 or S38 or S39 or S40
S42.	Study filter QUAL [A.3.8]
S43.	S36 and S41 and S42
	Date limits: 2002- 21 July 2017

A.4.9   Iron

- What is the clinical and cost effectiveness of iron supplementation in people with chronic heart failure and iron deficiency?

Medline search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	exp hematinics/
6.	exp iron compounds/
7.	iron/
8.	erythropoietin/ or epoetin alfa/
9.	(iron or ferrous or ferric or ferumoxytol or ferinject* or ferritin* or magnetite or "ferriferous oxide").ti,ab.
10.	(erythropoie* or epoetin* or epoietin* or epo or epogen or eporatio or eprex or procrit or binocrit or eprex or mircera or neorecormon or recormon or retacrit or darbopoetin or darbepoetin or darbepoietin or aranesp or r-huepo or huepo or r-hepo or rhepo or glycol-epoetin).ti,ab.
11.	(h?ematinic* or h?ematopoieti*).ti,ab.
12.	(anti-an?emi* or antian?emi*).ti,ab.
13.	or/5-12
14.	Study filters RCT [A.3.2] or SR [A.3.3]
15.	4 and 13 and 14
	Date limits: 1946 – 6 December 2017

Embase search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2

4.	Limit 3 to English language
5.	exp *antianemic agent/
6.	*iron/
7.	*iron derivative/
8.	*iron intake/
9.	(iron or ferrous or ferric or ferumoxytol or ferinject* or ferritin* or magnetite or "ferriferous oxide").ti,ab.
10.	(erythropoie* or epoetin* or epoietin* or epo or epogen or eporatio or eprex or procrit or binocrit or eprex or mircera or neorecormon or recormon or retacrit or darbopoetin or darbepoetin or darbepoietin or aranesp or r-huepo or huepo or r-hepo or rhepo or glycol-epoetin).ti,ab.
11.	(h?ematinic* or h?ematopoieti*).ti,ab.
12.	(anti-an?emi* or antian?emi*).ti,ab.
13.	or/5-12
14.	Study filters RCT [A.3.2] or SR [A.3.3]
15.	4 and 13 and 14
	Date limits: 1974 – 6 December 2017

Cochrane search terms

#1.	Standard population [A.2.1]
#2.	MeSH descriptor: [hematinics] explode all trees
#3.	MeSH descriptor: [iron compounds] explode all trees
#4.	MeSH descriptor: [iron] this term only
#5.	MeSH descriptor: [erythropoietin] this term only
#6.	MeSH descriptor: [epoetin alfa] this term only
#7.	(iron or ferrous or ferric or ferumoxytol or ferinject* or ferritin* or magnetite or "ferriferous oxide"):ti,ab
#8.	(erythropoie* or epoetin* or epoietin* or epo or epogen or eporatio or eprex or Procrit or binocrit or eprex or mircera or neorecormon or recormon or retacrit or darbopoetin or darbepoetin or darbepoietin or aranesp or r-huepo or huepo or r-hepo or rhepo or glycol-epoetin):ti,ab
#9.	(h?ematinic* or h?ematopoieti*):ti,ab
#10.	(anti-an?emi* or antian?emi*):ti,ab
#11.	#2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10
#12.	#1 and #11
	Date limits: Inception – 6 December 2017

A.4.10 Multi-disciplinary teams

- What competencies should be present in the multidisciplinary teams involved in the outpatient or community-based care of people with heart failure?

Medline search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	(heart failure adj2 team).ti,ab.
6.	(((interdisciplin* or inter-disciplin* or interprofession* or inter-profession* or multidisciplin*

	or multi-disciplin* or multi-profession* or multiprofession* or transprofession* or trans-profession* or integrat* or network*) adj2 (team* or staff* or meeting* or manag* or appointment* or intervention* or service* or approach* or system* or practice* or program* or advis* or advice* or caring or care or intervention* or communicat* or relation* or relate* or collaborat* or strateg* or model*)) or MDT or IDT).ti,ab.
7.	((interdisciplin* or inter-disciplin* or interprofession* or inter-profession* or multidisciplin* or multi-disciplin* or multi-profession* or multiprofession* or transprofession* or trans-profession* or integrat*) adj2 network*).ti,ab.
8.	((healthcare or care) adj2 team*).ti,ab.
9.	((team or teams or staff) adj6 (competenc* or skill* or expert* or knowledge* or composition*)).ti,ab.
10.	exp patient care team/
11.	exp interprofessional relations/
12.	exp clinical competence/
13.	interdisciplinary communication/
14.	exp cooperative behavior/
15.	((counsel* or coach* or advise* or advice or advisor* or led or co-ordinat* or coordinat* or expert* or skill* or service* or competenc* or knowledg* or team* or lead or leader or leads or intervention* or program* or therap*) adj2 (pharmacist* or physician* or practitioner* or gp* or psychologist* or consultant* or cardiologist* or community health worker* or prescriber* or physiotherap* or mental health* or nutrition* or diet* or rehab* or end of life or palliative or nurse* or nursing or pharmaceutical or geriatric* or elderly)).ti,ab.
16.	(specialis* or specializ*).ti,ab.
17.	(nurse* adj2 (heart failure or hf)).ti,ab.
18.	advance* practice nurs*.ti,ab.
19.	((person or patient) adj (centered or centred)).ti,ab.
20.	holistic care.ti,ab.
21.	practice patterns, nurses'/
22.	physician's practice patterns/
23.	pharmacists/
24.	nurses/ or nurse clinicians/ or nurse practitioners/ or nurses, community health/ or exp nursing staff/ or nursing/ or specialties, nursing/ or advanced practice nursing/
25.	community health workers/ or nutritionists/ or physical therapists/
26.	physicians/ or general practitioners/ or physicians, primary care/
27.	consultants/
28.	palliative care/
29.	geriatric assessment/
30.	nutrition assessment/
31.	mental health services/
32.	counseling/
33.	or/5-32
34.	Study filters RCT [A.3.2] or SR [A.3.3]
35.	4 and 33 and 34
	Date limits: 1946 – 6 December 2017

Embase search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2

4.	Limit 3 to English language
5.	(heart failure adj2 team).ti,ab.
6.	(((interdisciplin* or inter-disciplin* or interprofession* or inter-profession* or multidisciplin* or multi-disciplin* or multi-profession* or multiprofession* or transprofession* or trans-profession* or integrat* or network*) adj2 (team* or staff* or meeting* or manag* or appointment* or intervention* or service* or approach* or system* or practice* or program* or advis* or advice* or caring or care or intervention* or communicat* or relation* or relate* or collaborat* or strateg* or model*)) or mdt or idt).ti,ab.
7.	((interdisciplin* or inter-disciplin* or interprofession* or inter-profession* or multidisciplin* or multi-disciplin* or multi-profession* or multiprofession* or transprofession* or trans-profession* or integrat*) adj2 network*).ti,ab.
8.	((healthcare or care) adj2 team*).ti,ab.
9.	((team or teams or staff) adj6 (competenc* or skill* or expert* or knowledge* or composition*)).ti,ab.
10.	patient care/
11.	public relations/
12.	clinical competence/
13.	interdisciplinary communication/
14.	teamwork/
15.	cooperation/
16.	((counsel* or coach* or advise* or advice or advisor* or led or co-ordinat* or coordinat* or expert* or skill* or service* or competenc* or knowledg* or team* or lead or leader or leads or intervention* or program* or therap*) adj2 (pharmacist* or physician* or practitioner* or GP* or psychologist* or consultant* or cardiologist* or community health worker* or prescriber* or physiotherap* or mental health* or nutrition* or diet* or rehab* or end of life or palliative or nurse* or nursing or pharmaceutical or geriatric* or elderly)).ti,ab.
17.	(specialis* or specializ*).ti,ab.
18.	(nurse* adj2 (heart failure or HF)).ti,ab.
19.	advance* practice nurs*.ti,ab.
20.	((person or patient) adj (centered or centred)).ti,ab.
21.	holistic care.ti,ab.
22.	holistic care/
23.	*nurse/ or *nursing/
24.	advanced practice nurse/ or clinical nurse specialist/ or nurse practitioner/ or expert nurse/ or nurse consultant/ or holistic nursing/ or nursing competence/ or nursing intervention/ or nursing management/ or nursing role/ or nursing staff/
25.	medical specialist/
26.	pharmacist/
27.	health auxiliary/ or dietitian/ or physiotherapist/ or nutritional assessment/ or nutritional counseling/
28.	geriatrician/ or gerontologist/
29.	consultation/
30.	palliative nursing/ or palliative therapy/
31.	geriatric assessment/ or geriatric care/ or elderly care/ or geriatric nursing/
32.	mental health/ or psychiatrist/ or counseling/ or psychologist/
33.	cardiologist/
34.	general practitioner/
35.	*physician/
36.	or/5-35

37.	Study filters RCT [A.3.2] or SR [A.3.3]
38.	4 and 36 and 37
	Date limits: 1974 – 6 December 2017

Cochrane search terms

#1.	Standard population [A.2.1]
#2.	(heart failure next/2 team):ti,ab
#3.	(((interdisciplin* or inter-disciplin* or interprofession* or inter-profession* or multidisciplin* or multi-disciplin* or multi-profession* or multiprofession* or transprofession* or trans-profession* or integrat* or network*) next/2 (team* or staff* or meeting* or manag* or appointment* or intervention* or service* or approach* or system* or practice* or program* or advis* or advice* or caring or care or intervention* or communicat* or relation* or relate* or collaborat* or strateg* or model*)) or mdt or idt):ti,ab
#4.	((interdisciplin* or inter-disciplin* or interprofession* or inter-profession* or multidisciplin* or multi-disciplin* or multi-profession* or multiprofession* or transprofession* or trans-profession* or integrat*) next/2 network*):ti,ab
#5.	((healthcare or care) next/2 team*):ti,ab
#6.	((team or teams or staff) next/6 (competenc* or skill* or expert* or knowledge* or composition*)):ti,ab
#7.	MeSH descriptor: [patient care team] explode all trees
#8.	MeSH descriptor: [interprofessional relations] explode all trees
#9.	MeSH descriptor: [clinical competence] explode all trees
#10.	MeSH descriptor: [interdisciplinary communication] this term only
#11.	MeSH descriptor: [cooperative behavior] explode all trees
#12.	((counsel* or coach* or advise* or advice or advisor* or led or co-ordinat* or coordinat* or expert* or skill* or service* or competenc* or knowledg* or team* or lead or leader or leads or intervention* or program* or therap*) next/2 (pharmacist* or physician* or practitioner* or GP* or psychologist* or consultant* or cardiologist* or community next health next worker* or prescriber* or physiotherap* or mental next health* or nutrition* or diet* or rehab* or end next of next life or palliative or nurse* or nursing or pharmaceutical or geriatric* or elderly)):ti,ab
#13.	(specialis* or specializ*):ti,ab
#14.	(nurse* next/2 (heart failure or HF)):ti,ab
#15.	advance* next practice next nurs*:ti,ab
#16.	((person or patient) next (centered or centred)):ti,ab
#17.	"holistic care":ti,ab
#18.	MeSH descriptor: [practice patterns, nurses'] this term only
#19.	MeSH descriptor: [practice patterns, physicians'] this term only
#20.	MeSH descriptor: [pharmacists] this term only
#21.	MeSH descriptor: [nurses] this term only
#22.	MeSH descriptor: [nurse clinicians] this term only
#23.	MeSH descriptor: [nurse practitioners] this term only
#24.	MeSH descriptor: [nurses, community health] this term only
#25.	MeSH descriptor: [nursing staff] explode all trees
#26.	MeSH descriptor: [nursing] this term only
#27.	MeSH descriptor: [specialties, nursing] this term only
#28.	MeSH descriptor: [advanced practice nursing] this term only
#29.	MeSH descriptor: [community health workers] this term only
#30.	MeSH descriptor: [nutritionists] this term only

#31.	MeSH descriptor: [physical therapists] this term only
#32.	MeSH descriptor: [physicians] this term only
#33.	MeSH descriptor: [general practitioners] this term only
#34.	MeSH descriptor: [physicians, primary care] this term only
#35.	MeSH descriptor: [consultants] this term only
#36.	MeSH descriptor: [palliative care] this term only
#37.	MeSH descriptor: [geriatric assessment] this term only
#38.	MeSH descriptor: [nutrition assessment] this term only
#39.	MeSH descriptor: [mental health services] this term only
#40.	MeSH descriptor: [counseling] this term only
#41.	(or #2-#40)
#42.	#1 and #41
	Date limits: Inception – 6 December 2017

A.4.11   Monitoring

Searches for the following 3 questions were run as one search. The strategy was based on the following HTA:

Pufulete M, Maishman R, Dabner L, Mohiuddin S, Hollingworth W, Rogers CA et al. *Effectiveness and cost-effectiveness of serum B-type natriuretic peptide testing and monitoring in patients with heart failure in primary and secondary care: an evidence synthesis, cohort study and cost-effectiveness model*. **Health Technology Assessment**. 2017; 21(40)

- What is the clinical and cost effectiveness of biomarker-based monitoring, monitoring with cardiac MRI, and monitoring with repeated echocardiography in people with heart failure?
- What is the clinical and cost effectiveness of biomarker-based monitoring, monitoring with cardiac MRI, and monitoring with repeated echocardiography in people with heart failure who also have CKD?
- What is the clinical and cost effectiveness of biomarker-based monitoring, monitoring with cardiac MRI, and monitoring with repeated echocardiography in people with heart failure who also have atrial fibrillation?

Medline search terms

1.	exp heart Failure/
2.	heart failure.ti,ab.
3.	cardiac failure.ti,ab.
4.	or/1-3
5.	natriuretic peptide, brain/
6.	monitoring, physiologic/
7.	"health status indicators"/
8.	or/6-7
9.	5 and 8
10.	((bnp or probnp or ntprobnp or natriuretic peptide or natriuretic propeptide) adj5 (guide* or monitor* or target*)).ti,ab.
11.	((bnp or probnp or ntprobnp or natriuretic peptide or natriuretic propeptide) adj5 (retest* or serial or series)).ti,ab.
12.	((bnp or probnp or ntprobnp or natriuretic peptide or natriuretic propeptide) adj5 (manag* or

	tailor* or therap* or strateg*)).ti,ab.
13.	or/9-12
14.	4 and 13
15.	exp heart failure/
16.	cardiomyopathy, dilated/
17.	shock, cardiogenic/
18.	exp ventricular dysfunction/
19.	cardiac output, low/
20.	((heart or cardiac or myocardial) adj2 (failure or decompensation)).ti.
21.	((congestive or acute or decompensat* or chronic) adj2 "heart failure")).ti,ab.
22.	((dilated or congestive) adj2 cardiomyopath*).ti.
23.	"cardiogenic shock".ti.
24.	((ventricular or ventricle*) adj2 (failure or insufficien* or dysfunction*)).ti.
25.	(("left ventricular" or "left ventricle") adj2 (failure or insufficien* or dysfunction*)).ti,ab.
26.	lvsd.ti,ab.
27.	or/15-26
28.	exp troponin/
29.	exp echocardiography/
30.	magnetic resonance imaging/
31.	or/28-30
32.	monitoring, physiologic/
33.	"health status indicators"/
34.	or/32-33
35.	31 and 34
36.	((troponin or echo* or doppler* or mri* or nmr* or magnetic resonance) adj5 (guide* or monitor* or target* or marker* or biomarker*)).ti,ab.
37.	((troponin or echo* or doppler* or mri* or nmr* or magnetic resonance) adj5 (repeat* or retest* or serial or series)).ti,ab.
38.	((troponin or echo* or doppler* or mri* or nmr* or magnetic resonance) adj5 (manag* or tailor* or therap* or strateg* or treat*)).ti,ab.
39.	((cmr or ((cardiac or cardiovascular) adj mr)) adj5 (guide* or monitor* or target* or marker* or biomarker*)).ti,ab.
40.	((cmr or ((cardiac or cardiovascular) adj mr)) adj5 (repeat* or retest* or serial or series)).ti,ab.
41.	((cmr or ((cardiac or cardiovascular) adj mr)) adj5 (manag* or tailor* or therap* or strateg* or treat*)).ti,ab.
42.	((bnp or probnp or ntprobnp or natriuretic peptide or natriuretic propeptide) adj5 (repeat* or treat* or marker* or biomarker*)).ti,ab.
43.	or/35-42
44.	27 and 43
45.	Excluded study designs and publication types [A.3.1]
46.	14 or 44
47.	46 not 45
48.	Limit 47 to English language
49.	Study filters RCT [A.3.2] or SR [A.3.3]
50.	48 and 49
51.	13 and 27

52.	51 not 14
53.	52 not 45
54.	Limit 53 to English language
55.	54 and 49
56.	50 or 55
	Date limits: 1946 – 6 December 2017

Embase search terms

1.	exp heart failure/
2.	heart failure.tw.
3.	cardiac failure.tw.
4.	or/1-3
5.	brain natriuretic peptide/
6.	monitoring/
7.	"disease course"/
8.	"pathophysiology"/
9.	patient monitoring/
10.	biological monitoring/
11.	hemodynamic monitoring/
12.	"symptom"/
13.	or/6-12
14.	5 and 13
15.	((bnp or probnp or ntprobnp or natriuretic peptide or natriuretic propeptide) adj5 (guide* or monitor* or target*)).ti,ab.
16.	((bnp or probnp or ntprobnp or natriuretic peptide or natriuretic propeptide) adj5 (retest* or serial or series)).ti,ab.
17.	((bnp or probnp or ntprobnp or natriuretic peptide or natriuretic propeptide) adj5 (manag* or tailor* or treat* or therap* or strateg*)).ti,ab.
18.	or/14-17
19.	4 and 18
20.	*heart failure/ or acute heart failure/ or *cardiogenic shock/ or *diastolic dysfunction/ or *forward heart failure/ or *high output heart failure/ or *systolic dysfunction/
21.	*congestive cardiomyopathy/ or exp *congestive heart failure/
22.	exp *heart ventricle failure/
23.	((heart or cardiac or myocardial) adj2 (failure or decompensation)).ti.
24.	((congestive or acute or decompensat* or chronic) adj2 "heart failure").ti,ab.
25.	((dilated or congestive) adj2 cardiomyopath*).ti.
26.	"cardiogenic shock".ti.
27.	((ventricular or ventricle*) adj2 (failure or insufficien* or dysfunction*)).ti.
28.	(("left ventricular" or "left ventricle") adj2 (failure or insufficien* or dysfunction*)).ti,ab.
29.	lvsd.ti,ab.
30.	or/20-29
31.	exp troponin/
32.	exp echocardiography/
33.	exp nuclear magnetic resonance imaging/
34.	or/31-33

35.	monitoring/
36.	"disease course"/
37.	"symptom"/
38.	"pathophysiology"/
39.	patient monitoring/
40.	biological monitoring/
41.	hemodynamic monitoring/
42.	or/35-41
43.	34 and 42
44.	((troponin or echo* or doppler* or mri* or nmr* or magnetic resonance) adj5 (guide* or monitor* or target* or marker* or biomarker*)).ti,ab.
45.	((troponin or echo* or doppler* or mri* or nmr* or magnetic resonance) adj5 (repeat* or retest* or serial or series)).ti,ab.
46.	((troponin or echo* or doppler* or mri* or nmr* or magnetic resonance) adj5 (manag* or tailor* or therap* or strateg* or treat*)).ti,ab.
47.	((cmr or ((cardiac or cardiovascular) adj mr)) adj5 (guide* or monitor* or target* or marker* or biomarker*)).ti,ab.
48.	((cmr or ((cardiac or cardiovascular) adj mr)) adj5 (repeat* or retest* or serial or series)).ti,ab.
49.	((cmr or ((cardiac or cardiovascular) adj mr)) adj5 (manag* or tailor* or therap* or strateg* or treat*)).ti,ab.
50.	((bnp or probnp or ntprobnp or natriuretic peptide or natriuretic propeptide) adj5 (repeat* or treat* or marker* or biomarker*)).ti,ab.
51.	or/43-50
52.	30 and 51
53.	Excluded study designs and publication types [A.3.1]
54.	52 not 53
55.	Limit 54 to English language
56.	Study filters RCT [A.3.2] or SR [A.3.3]
57.	55 and 56
58.	18 and 30
59.	58 not 19
60.	59 not 53
61.	61 and 56
62.	57 or 61
	Date limits: 1974 – 6 December 2017

Cochrane search terms

#1.	MeSH descriptor: [heart failure] explode all trees
#2.	heart failure:ti,ab
#3.	cardiac failure:ti,ab
#4.	#1 or #2 or #3
#5.	MeSH descriptor: [natriuretic peptide, brain] this term only
#6.	((bnp or probnp or ntprobnp or natriuretic next peptide or natriuretic next propeptide) near/5 (guide* or monitor* or target*)):ti,ab
#7.	((bnp or probnp or ntprobnp or natriuretic next peptide or natriuretic next propeptide) near/5 (retest* or serial or series)):ti,ab
#8.	((bnp or probnp or ntprobnp or natriuretic next peptide or natriuretic next propeptide) near/5

	(manag* or tailor* or therap* or strateg*)):ti,ab
#9.	(ntprobnp or "natriuretic peptide" or "natriuretic propeptide" or bnp or probnp):ti
#10.	(#5 or #6 or #7 or #8 or #9)
#11.	#4 and #10
#12.	#4 and #10
#13.	MeSH descriptor: [heart failure] explode all trees
#14.	MeSH descriptor: [cardiomyopathy, dilated] this term only
#15.	MeSH descriptor: [shock, cardiogenic] this term only
#16.	MeSH descriptor: [ventricular dysfunction] explode all trees
#17.	MeSH descriptor: [cardiac output, low] this term only
#18.	(heart or cardiac or myocardial) next (failure or decompensation):ti
#19.	((congestive or chronic) next ("heart failure")):ti,ab
#20.	((dilated or congestive) next cardiomyopath*):ti
#21.	("cardiogenic shock"):ti
#22.	((ventricular or ventricle) next (failure or insufficienc* or dysfunction*)):ti
#23.	lvsd:ti,ab
#24.	(("left ventricular" or "left ventricle") next (failure or insufficienc* or dysfunction*)):ti,ab
#25.	(#13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24)
#26.	MeSH descriptor: [troponin] explode all trees
#27.	MeSH descriptor: [echocardiography] explode all trees
#28.	MeSH descriptor: [magnetic resonance imaging] this term only
#29.	#27 or #28
#30.	MeSH descriptor: [monitoring, physiologic] this term only
#31.	MeSH descriptor: [health status indicators] this term only
#32.	#30 or #31
#33.	#29 and #32
#34.	((troponin or echo* or doppler* or mri* or nmr* or magnetic resonance) near/5 (guide* or monitor* or target* or marker* or biomarker*)):ti,ab
#35.	((troponin or echo* or doppler* or mri* or nmr* or magnetic resonance) near/5 (repeat* or retest* or serial or series)):ti,ab
#36.	((troponin or echo* or doppler* or mri* or nmr* or magnetic resonance) near/5 (manag* or tailor* or therap* or strateg* or treat*)):ti,ab
#37.	((cmr or ((cardiac or cardiovascular) next mr)) near/5 (guide* or monitor* or target* or marker* or biomarker*)):ti,ab
#38.	((cmr or ((cardiac or cardiovascular) next mr)) near/5 (repeat* or retest* or serial or series)):ti,ab
#39.	((cmr or ((cardiac or cardiovascular) next mr)) near/5 (manag* or tailor* or therap* or strateg* or treat*)):ti,ab
#40.	((bnp or probnp or ntprobnp or natriuretic peptide or natriuretic propeptide) near/5 (repeat* or treat* or marker* or biomarker*)):ti,ab
#41.	troponin:ti
#42.	#26 or #33 or #34 or #35 or #36 or #37 or #38 or #39 or #40 or #41
#43.	#25 and #42
#44.	#10 and #25
#45.	#44 not #11
	Date limits: Inception – 6 December 2017

A.4.12   Mineralcorticoid receptor antagonists

Searches for the following 2 searches were run as one search:

- What is the clinical and cost effectiveness of mineralocorticoid receptor antagonists in people with heart failure with preserved ejection fraction?
- What is the clinical and cost effectiveness of adding a mineralocorticoid receptor antagonist to existing standard first line treatment in people with heart failure with reduced ejection fraction?

Medline search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	mineralocorticoid receptor antagonists/
6.	(aldosterone adj2 antagonist*).ti,ab.
7.	spironolactone/
8.	(spironolactone or eplerenone).mp.
9.	(inspra or aldactone).ti,ab.
10.	(aldo or aldos).ti,ab.
11.	or/5-10
12.	Study filters RCT[A.3.2] or SR [A.3.3]
13.	4 and 11 and 12
	Date limits: 2009 – 6 December 2017

Embase search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	aldosterone antagonist/
6.	(aldosterone adj2 antagonist*).ti,ab.
7.	eplerenone/ or spironolactone/
8.	(spironolactone or eplerenone).mp.
9.	(inspra or aldactone).ti,ab.
10.	(aldo or aldos).ti,ab.
11.	or/5-10
12.	Study filters RCT [A.3.2] or SR [A.3.3]
13.	4 and 11 and 12
	Date limits: 2009 – 6 December 2017

Cochrane search terms

#1.	Standard population [A.2.1]
#2.	MeSH descriptor: [mineralocorticoid receptor antagonists] explode all trees
#3.	(aldosterone next antagonist*):ti,ab
#4.	(spironolactone or eplerenone or aldactone or inspra):ti,ab
#5.	(aldo or aldos):ti,ab
#6.	(or #2-#5)

| #7. | #1 and #6 |
| | Date limits: 2009 – 6 December 2017 |

A.4.13 Pharma in Chronic kidney disease

- What is the clinical and cost effectiveness of pharmaceutical interventions for heart failure in people with heart failure that also have chronic kidney disease?

Medline search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	exp kidney failure, chronic/
6.	renal insufficiency, chronic/
7.	kidney diseases/ and chronic.ti,ab.
8.	((chronic or progressive) adj3 (renal or kidney*)).ti,ab.
9.	ckd.ti,ab.
10.	((renal or kidney*) adj3 (insufficienc* or disease*)).ti,ab.
11.	((renal or kidney*) adj3 (function* or failure* or dysfunction*)).ti,ab.
12.	glomerular filtration rate/
13.	(glomerul* filtration rate* or gfr).ti,ab.
14.	diabetic neuropathies/
15.	exp glomerulonephritis/
16.	exp proteinuria/
17.	(glomerulosclerosis or glomerulonephritis or nephropath* or proteinuria* or albuminuria or microalbuminuria).ti,ab.
18.	(glomerular adj (sclerosis or nephritis)).ti,ab.
19.	acidosis, renal tubular/
20.	((renal or kidney* or distal or proximal or tubul*) adj3 acidos*).ti,ab.
21.	exp hypertension, renal/
22.	((renal or kidney* or renovascular) adj3 hypertensi*).ti,ab.
23.	exp hyperparathyroidism, secondary/
24.	((renal or kidney* or secondary) adj3 hyperparathyroidism).ti,ab.
25.	hyperuricemia/
26.	hyperuric?emi*.ti,ab.
27.	((renal or kidney*) adj3 osteo*).ti,ab.
28.	(or/5-27
29.	exp angiotensin-converting enzyme inhibitors/
30.	(("angiotensin-converting enzyme" or ace) adj2 (inhibitor* or antagonist*)).ti,ab.
31.	(captopril or cilazapril or enalapril or fosinopril or imidapril or lisinopril or moexipril or perindopril or quinapril or ramipril or trandolapril or transolapril).ti,ab.
32.	exp angiotensin-converting enzyme inhibitors/
33.	exp angiotensin receptor antagonists/
34.	(angiotensin adj3 receptor adj3 (antagonist* or blocker*)).ti,ab.
35.	(arb or arbs).ti,ab.
36.	(azilsartan or candesartan or eprosartan or irbesartan or losartan or olmesartan or telmisartan

	or valsartan).ti,ab.
37.	adrenergic beta-antagonists/ or adrenergic beta-1 receptor antagonists/
38.	bisoprolol/
39.	metoprolol/
40.	nebivolol/
41.	(carvedilol or metoprolol or bisoprolol or nebivolol).mp.
42.	(beta* adj3 (blockade or blocker* or blocking or antagonist*)).ti,ab.
43.	((beta-adrenoceptor or b-adrenoceptor or beta-adrenergic) adj3 (blockade or blocker* or blocking or antagonist*)).ti,ab.
44.	mineralocorticoid receptor antagonists/
45.	(aldosterone adj2 antagonist*).ti,ab.
46.	spironolactone/
47.	(spironolactone or eplerenone).mp.
48.	(inspra or aldactone).ti,ab.
49.	(aldo or aldos).ti,ab.
50.	exp digoxin/
51.	digoxin.mp.
52.	diuretics/
53.	diuretic*.mp.
54.	(bumetanide or co?amilo* or furosemide or torasemide).mp.
55.	(sacubitril adj3 valsartan).mp.
56.	exp isosorbide/
57.	exp hydralazine/
58.	(hydralazine adj3 (nitrate or dinitrate or mononitrate or isosorbide)).mp.
59.	ivabradine.mp.
60.	or/29-59
61.	4 and 28 and 60
62.	Study filters RCT [A.3.2] or SR [A.3.3]
63.	61 and 62
	Date limits: 1946 – 6 December 2017

Embase search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	chronic kidney failure/
6.	chronic kidney disease/
7.	(kidney failure/ or kidney disease/) and chronic.ti,ab.
8.	((chronic or progressive) adj3 (renal or kidney*)).ti,ab.
9.	ckd.ti,ab.
10.	((renal or kidney*) adj3 (insufficienc* or disease*)).ti,ab.
11.	((renal or kidney*) adj3 (function* or failure* or dysfunction*)).ti,ab.
12.	glomerulus filtration rate/
13.	(glomerul* filtration rate* or gfr).ti,ab.
14.	diabetic neuropathy/

15.	exp glomerulonephritis/
16.	exp proteinuria/
17.	(glomerulosclerosis or glomerulonephritis or nephropath* or proteinuria* or albuminuria or microalbuminuria).ti,ab.
18.	(glomerular adj (sclerosis or nephritis)).ti,ab.
19.	kidney tubule acidosis/
20.	((renal or kidney* or distal or proximal or tubul*) adj3 acidos*).ti,ab.
21.	exp renovascular hypertension/
22.	((renal or kidney* or renovascular) adj3 hypertensi*).ti,ab.
23.	hyperuricemia/
24.	hyperuric?emi*.ti,ab.
25.	secondary hyperparathyroidism/
26.	((renal or kidney* or secondary) adj3 hyperparathyroidism).ti,ab.
27.	renal osteodystrophy/
28.	((renal or kidney*) adj3 osteo*).ti,ab.
29.	(or/5-28
30.	exp *dipeptidyl carboxypeptidase inhibitor/
31.	(("angiotensin-converting enzyme" or ace) adj2 (inhibitor* or antagonist*)).ti,ab.
32.	(captopril or cilazapril or enalapril or fosinopril or imidapril or lisinopril or moexipril or perindopril or quinapril or ramipril or trandolapril or transolapril).ti,ab.
33.	exp *angiotensin receptor antagonist/
34.	(angiotensin adj3 receptor adj3 (antagonist* or blocker*)).ti,ab.
35.	(arb or arbs).ti,ab.
36.	(azilsartan or candesartan or eprosartan or irbesartan or losartan or olmesartan or telmisartan or valsartan).ti,ab.
37.	*beta adrenergic receptor blocking agent/ or *beta 1 adrenergic receptor blocking agent/
38.	*bisoprolol/ or *bisoprolol fumarate/ or *bisoprolol fumarate plus hydrochlorothiazide/ or *carvedilol/ or *metoprolol/ or *metoprolol fumarate/ or *metoprolol succinate/ or *metoprolol tartrate/ or *nebivolol/
39.	(carvedilol or metoprolol or bisoprolol or nebivolol).mp.
40.	((beta-adrenoceptor or b-adrenoceptor or beta-adrenergic) adj3 (blockade or blocker* or blocking or antagonist*)).ti,ab.
41.	(beta* adj3 (blockade or blocker* or blocking or antagonist*)).ti,ab.
42.	*aldosterone antagonist/
43.	*eplerenone/ or *spironolactone/
44.	(aldosterone adj2 antagonist*).ti,ab.
45.	(spironolactone or eplerenone or inspra or aldactone).mp.
46.	(aldo or aldos).ti,ab.
47.	*digoxin/
48.	digoxin.mp.
49.	*diuretic agent/ or exp *loop diuretic agent/
50.	*amiloride plus furosemide/ or *bumetanide/ or *furosemide/ or *torasemide/
51.	(bumetanide or co?amilo* or furosemide or torasemide).mp.
52.	*sacubitril/ or *sacubitril plus valsartan/
53.	(sacubitril adj3 valsartan).mp.
54.	*hydralazine plus isosorbide dinitrate/

55.	(hydralazine adj3 (nitrate or dinitrate or mononitrate or isosorbide)).mp.
56.	*ivabradine/
57.	ivabradine.mp.
58.	or/30-57
59.	4 and 29 and 58
60.	Study filters RCT [A.3.2] or SR [A.3.3]
61.	59 and 60
	Date limits: 1974 – 6 December 2017

Cochrane search terms

#1.	Standard population [A.2.1]
#2.	MeSH descriptor: [renal insufficiency, chronic] this term only
#3.	MeSH descriptor: [kidney failure, chronic] explode all trees
#4.	MeSH descriptor: [kidney diseases] this term only
#5.	chronic:ti,ab
#6.	#4 and #5
#7.	((chronic or progressive) near/3 (renal or kidney)):ti,ab
#8.	ckd:ti,ab
#9.	((renal or kidney*) near/3 (insufficienc* or disease*)):ti,ab
#10.	((renal or kidney*) near/3 (function* or failure* or dysfunction*)):ti,ab
#11.	MeSH descriptor: [glomerular filtration rate] this term only
#12.	(glomerul* filtration rate* or gfr):ti,ab
#13.	MeSH descriptor: [diabetic neuropathies] this term only
#14.	MeSH descriptor: [glomerulonephritis] explode all trees
#15.	MeSH descriptor: [proteinuria] explode all trees
#16.	(glomerulosclerosis or glomerulonephritis or nephropath* or proteinuria* or albuminuria or microalbuminuria):ti,ab
#17.	(glomerular next (sclerosis or nephritis)):ti,ab
#18.	MeSH descriptor: [acidosis, renal tubular] this term only
#19.	((renal or kidney* or distal or proximal or tubul*) near/3 acidos*):ti,ab
#20.	MeSH descriptor: [hypertension, renal] explode all trees
#21.	((renal or kidney* or renovascular) near/3 hypertensi*):ti,ab
#22.	MeSH descriptor: [hyperparathyroidism, secondary] explode all trees
#23.	((renal or kidney* or secondary) near/3 hyperparathyroidism):ti,ab
#24.	MeSH descriptor: [hyperuricemia] this term only
#25.	hyperuric?emi*:ti,ab
#26.	((renal or kidney*) near/3 osteo*):ti,ab
#27.	#2 or #3 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24 or #25 or #26
#28.	#1 and #27
#29.	MeSH descriptor: [angiotensin-converting enzyme inhibitors] explode all trees
#30.	(angiotensin near/3 receptor near/3 (antagonist* or blocker*)):ti,ab
#31.	(captopril or cilazapril or enalapril or fosinopril or imidapril or lisinopril or moexipril or perindopril or quinapril or ramipril or trandolapril or transolapril):ti,ab
#32.	#29 or #30 or #31
#33.	MeSH descriptor: [angiotensin receptor antagonists] explode all trees

#34.	(angiotensin near/3 receptor near/3 (antagonist* or blocker*)):ti,ab
#35.	(arb or arbs):ti,ab
#36.	(azilsartan or candesartan or eprosartan or irbesartan or losartan or olmesartan or telmisartan or valsartan):ti,ab
#37.	#33 or #34 or #35 or #36
#38.	MeSH descriptor: [adrenergic beta-antagonists] this term only
#39.	MeSH descriptor: [adrenergic beta-1 receptor antagonists] this term only
#40.	MeSH descriptor: [bisoprolol] this term only
#41.	MeSH descriptor: [metoprolol] this term only
#42.	MeSH descriptor: [nebivolol] this term only
#43.	(carvedilol or metoprolol or bisoprolol or nebivolol):ti,ab
#44.	(beta* near/3 (blockade or blocker* or blocking or antagonist*)):ti,ab
#45.	((beta-adrenoceptor or b-adrenoceptor or beta-adrenergic) near/3 (blockade or blocker* or blocking or antagonist*)):ti,ab
#46.	#38 or #39 or #40 or #41 or #42 or #43 or #44 or #45
#47.	MeSH descriptor: [mineralocorticoid receptor antagonists] explode all trees
#48.	(aldosterone near/2 antagonist*):ti,ab
#49.	MeSH descriptor: [spironolactone] this term only
#50.	(spironolactone or eplerenone):ti,ab
#51.	(inspra or aldactone):ti,ab
#52.	(aldo or aldos):ti,ab
#53.	#47 or #48 or #49 or #50 or #51 or #52
#54.	MeSH descriptor: [digoxin] this term only
#55.	digoxin:ti,ab
#56.	#54 or #55
#57.	MeSH descriptor: [diuretics] this term only
#58.	diuretic*:ti,ab
#59.	(bumetanide or co?amilo* or furosemide or torasemide):ti,ab
#60.	#57 or #58 or #59
#61.	(sacubitril near/3 valsartan):ti,ab
#62.	MeSH descriptor: [isosorbide] explode all trees
#63.	MeSH descriptor: [hydralazine] explode all trees
#64.	#62 and #63
#65.	(hydralazine near/3 (nitrate or dinitrate or mononitrate or isosorbide)):ti,ab
#66.	#64 or #65
#67.	ivabradine:ti,ab
#68.	#43 or #37 or #46 or #53 or #56 or #60 or #61 or #66 or #67
#69.	#28 and #68
	Date limits: Inception – 6 December 2017

A.4.14 Referral risk tools

- In adults with heart failure, which validated risk tools best identify patients with heart failure who are at increased risk of mortality in the short term (up to 1 year)?

Medline search terms

1.	Standard population [A.2.1]

2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	seattle heart failure model.ti,ab.
6.	heart failure survival score*.ti,ab.
7.	acute decompensated heart failure national registry.ti,ab.
8.	heart failure risk calculator.ti,ab.
9.	maggic.ti,ab.
10.	(shocked adj predict*).ti,ab.
11.	heart failure risk score*.ti,ab.
12.	needs assessment tool progressive disease heart failure.ti,ab.
13.	nat-pd-hf.ti,ab.
14.	or/5-13
15.	("supportive and palliative indicators tool" or spict).ti,ab.
16.	(toronto adj3 risk).ti,ab.
17.	(surprise adj question*).ti,ab.
18.	four item risk.ti,ab.
19.	edmonton symptom assessment scale.ti,ab.
20.	palliative performance scale.ti,ab.
21.	risk readmission assessment tool.ti,ab.
22.	readmission risk score.ti,ab.
23.	(frankenstein* or saps* or apache* or encourage or adhere or pace).ti,ab.
24.	or/15-23
25.	4 and 24
26.	14 or 25
27.	((prognos* or predict* or risk*) adj4 (tool* or index or indices or indicat* or calculat* or score* or scoring or system* or criteria* or scale* or model* or stratif* or instrument*)).ti,ab.
28.	(decision adj2 (tool* or score or scoring or scale* or model*)).ti,ab.
29.	((score* or scoring) adj2 (tool* or system*)).ti,ab.
30.	or/27-29
31.	(palliat* or terminal* or dying* or eolc).ti,ab.
32.	(end adj2 life).ti,ab.
33.	((long term or longterm) adj2 (care* or caring or ill*)).ti,ab.
34.	(advance* adj2 (plan* or decision* or directive* or care or caring)).ti,ab.
35.	terminal care/ or palliative care/ or advance care planning/ or long-term care/
36.	or/31-35
37.	4 and 30 and 36
38.	26 or 37
39.	acute decompensated heart failure national registry.ti,ab.
40.	(maggic or "meta-analysis global group in chronic heart failure").ti,ab.
41.	(optimize-hf or "organized program to initiate lifesaving treatment in hospitalized patients with heart failure").ti,ab.
42.	(heartmate adj2 risk).ti,ab.
43.	(nat-pd-hf or "needs assessment tool progressive disease heart failure").ti,ab.
44.	("barcelona bio-heart failure risk calculator" or "bcn bio-hf calculator").ti,ab.

45.	((adhf or nt-probnp) adj3 (risk or score*)).ti,ab.
46.	("european collaboration on acute decompensated heart failure" or elan-hf).ti,ab.
47.	("biology study to tailored treatment in chronic heart failure" or biostat-chf).ti,ab.
48.	(hf-action or 3c-hf or "cvm-hf index" or i-preserve).ti,ab.
49.	or/39-48
50.	("supportive and palliative indicators tool" or spict).ti,ab.
51.	"gold standards framework prognostic indicator guide".ti,ab.
52.	("get with the guidelines" or gwtg).ti,ab.
53.	(toronto adj3 risk).ti,ab.
54.	(surprise adj question*).ti,ab.
55.	((four or "4") adj (item or variable) adj risk).ti,ab.
56.	"edmonton symptom assessment scale".ti,ab.
57.	"palliative performance scale".ti,ab.
58.	"risk readmission assessment tool".ti,ab.
59.	("resident assessment instrument" or rai-mds).ti,ab.
60.	"readmission risk score".ti,ab.
61.	"destination therapy risk score".ti,ab.
62.	(bardiche adj index).ti,ab.
63.	(acci or "adjusted charlson comorbidity index").ti,ab.
64.	(leitz-miller adj score*).ti,ab.
65.	(shocked adj predict*).ti,ab.
66.	(pace adj2 (risk or score*)).ti,ab.
67.	(abc adj3 score*).ti,ab.
68.	("muerte subita en insufi- ciencia cardiaca" or (music adj risk score*)).ti,ab.
69.	"association of health aging and body composition".ti,ab.
70.	("simplified acute physiology score" or saps).ti,ab.
71.	(("cardiopulmonary exercise test" or cpx) adj score*).ti,ab.
72.	(columbia adj (risk or score*)).ti,ab.
73.	("controlling nutritional status score*" or conut).ti,ab.
74.	("sequential organ failure assessment" or sofa).ti,ab.
75.	(congestion adj score*).ti,ab.
76.	penn hf study.ti,ab.
77.	("interagency registry for mechanically assisted circulatory support" or intermacs).ti,ab.
78.	((escape or frankenstein*) adj2 model).ti,ab.
79.	(charm adj (program* or model*)).ti,ab.
80.	("acute physiology and chronic health evaluation" or apache*).ti,ab.
81.	(dtrs or unicamp ii or phfs or everest or ahfrs or fhfrs or shfm or hfss).ti,ab.
82.	or/50-81
83.	4 and 82
84.	49 or 83
85.	((prognos* or predict* or risk*) adj4 (tool* or index or indices or indicat* or calculat* or score* or scoring or system* or criteria* or scale* or model* or stratif* or instrument*)).ti,ab.
86.	(decision adj2 (tool* or score or scoring or scale* or model*)).ti,ab.
87.	((score* or scoring) adj2 (tool* or system*)).ti,ab.
88.	((heart failure or hf) adj4 (score* or scoring or model* or calculator* or index*)).ti,ab.

89.	or/85-88
90.	validat*.ti,ab.
91.	4 and 89 and 90
92.	84 or 91
93.	38 or 92
	Date limits: 1946 - 14 August 2017

Embase search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	seattle heart failure model.ti,ab.
6.	heart failure survival score*.ti,ab.
7.	acute decompensated heart failure national registry.ti,ab.
8.	heart failure risk calculator.ti,ab.
9.	maggic.ti,ab.
10.	(shocked adj predict*).ti,ab.
11.	heart failure risk score*.ti,ab.
12.	needs assessment tool progressive disease heart failure.ti,ab.
13.	nat-pd-hf.ti,ab.
14.	or/5-13
15.	("supportive and palliative indicators tool" or spict).ti,ab.
16.	(toronto adj3 risk).ti,ab.
17.	(surprise adj question*).ti,ab.
18.	four item risk.ti,ab.
19.	edmonton symptom assessment scale.ti,ab.
20.	palliative performance scale.ti,ab.
21.	risk readmission assessment tool.ti,ab.
22.	readmission risk score.ti,ab.
23.	(frankenstein* or saps* or apache* or encourage or adhere or pace).ti,ab.
24.	or/15-23
25.	4 and 24
26.	25 or 14
27.	((prognos* or predict* or risk*) adj4 (tool* or index or indices or indicat* or calculat* or score* or scoring or system* or criteria* or scale* or model* or stratif* or instrument*)).ti,ab.
28.	(decision adj2 (tool* or score or scoring or scale* or model*)).ti,ab.
29.	((score* or scoring) adj2 (tool* or system*)).ti,ab.
30.	or/27-29
31.	(palliat* or terminal* or dying* or eolc).ti,ab.
32.	(end adj2 life).ti,ab.
33.	((long term or longterm) adj2 (care* or caring or ill*)).ti,ab.
34.	(advance* adj2 (plan* or decision* or directive* or care or caring)).ti,ab.
35.	terminal care/ or advance care planning/ or palliative therapy/ or long term care/
36.	or/31-35
37.	4 and 30 and 36

38.	26 or 37
39.	acute decompensated heart failure national registry.ti,ab.
40.	(maggic or "meta-analysis global group in chronic heart failure").ti,ab.
41.	(optimize-hf or "organized program to initiate lifesaving treatment in hospitalized patients with heart failure").ti,ab.
42.	(heartmate adj2 risk).ti,ab.
43.	(nat-pd-hf or "needs assessment tool progressive disease heart failure").ti,ab.
44.	("barcelona bio-heart failure risk calculator" or "bcn bio-hf calculator").ti,ab.
45.	((adhf or nt-probnp) adj3 (risk or score*)).ti,ab.
46.	("european collaboration on acute decompensated heart failure" or elan-hf).ti,ab.
47.	("biology study to tailored treatment in chronic heart failure" or biostat-chf).ti,ab.
48.	(hf-action or 3c-hf or "cvm-hf index" or i-preserve).ti,ab.
49.	or/39-48
50.	("supportive and palliative indicators tool" or spict).ti,ab.
51.	"gold standards framework prognostic indicator guide".ti,ab.
52.	("get with the guidelines" or gwtg).ti,ab.
53.	(toronto adj3 risk).ti,ab.
54.	(surprise adj question*).ti,ab.
55.	((four or "4") adj (item or variable) adj risk).ti,ab.
56.	"edmonton symptom assessment scale".ti,ab.
57.	"palliative performance scale".ti,ab.
58.	"risk readmission assessment tool".ti,ab.
59.	("resident assessment instrument" or rai-mds).ti,ab.
60.	"readmission risk score".ti,ab.
61.	"destination therapy risk score".ti,ab.
62.	(bardiche adj index).ti,ab.
63.	(acci or "adjusted charlson comorbidity index").ti,ab.
64.	(leitz-miller adj score*).ti,ab.
65.	(shocked adj predict*).ti,ab.
66.	(pace adj2 (risk or score*)).ti,ab.
67.	(abc adj3 score*).ti,ab.
68.	("muerte subita en insufi- ciencia cardiaca" or (music adj risk score*)).ti,ab.
69.	"association of health aging and body composition".ti,ab.
70.	("simplified acute physiology score" or saps).ti,ab.
71.	(("cardiopulmonary exercise test" or cpx) adj score*).ti,ab.
72.	(columbia adj (risk or score*)).ti,ab.
73.	("controlling nutritional status score*" or conut).ti,ab.
74.	("sequential organ failure assessment" or sofa).ti,ab.
75.	(congestion adj score*).ti,ab.
76.	penn hf study.ti,ab.
77.	("interagency registry for mechanically assisted circulatory support" or intermacs).ti,ab.
78.	((escape or frankenstein*) adj2 model).ti,ab.
79.	(charm adj (program* or model*)).ti,ab.
80.	("acute physiology and chronic health evaluation" or apache*).ti,ab.
81.	(dtrs or unicamp ii or phfs or everest or ahfrs or fhfrs or shfm or hfss).ti,ab.

82.	or/50-81
83.	4 and 82
84.	49 or 83
85.	((prognos* or predict* or risk*) adj4 (tool* or index or indices or indicat* or calculat* or score* or scoring or system* or criteria* or scale* or model* or stratif* or instrument*)).ti,ab.
86.	((heart failure or hf) adj4 (score* or scoring or model* or calculator* or index*)).ti,ab.
87.	(decision adj2 (tool* or score or scoring or scale* or model*)).ti,ab.
88.	((score* or scoring) adj2 (tool* or system*)).ti,ab.
89.	or/85-88
90.	validat*.ti,ab.
91.	4 and 89 and 90
92.	84 or 91
93.	38 or 92
	Date limits: 1974 - 14 August 2017

Cochrane search terms

#1.	Standard population [A.2.1]
#2.	"seattle heart failure model":ti,ab
#3.	("heart failure survival score" or "heart failure survival scores"):ti,ab
#4.	"acute decompensated heart failure national registry":ti,ab
#5.	"heart failure risk calculator":ti,ab
#6.	maggic:ti,ab
#7.	(shocked next predict*):ti,ab
#8.	("heart failure risk score" or "heart failure risk scores"):ti,ab
#9.	"needs assessment tool progressive disease heart failure":ti,ab
#10.	nat-pd-hf:ti,ab
#11.	(or #2-#10)
#12.	"supportive and palliative indicators tool":ti,ab
#13.	(toronto near/3 risk):ti,ab
#14.	(surprise next question*):ti,ab
#15.	"four item risk":ti,ab
#16.	"edmonton symptom assessment scale":ti,ab
#17.	"palliative performance scale":ti,ab
#18.	"risk readmission assessment tool":ti,ab
#19.	"readmission risk score":ti,ab
#20.	(frankenstein* or saps* or apache* or encourage or adhere or pace or spict):ti,ab
#21.	(or #12-#20)
#22.	#1 and #21
#23.	((prognos* or predict* or risk*) near/4 (tool* or index or indices or indicat* or calculat* or score* or scoring or system* or criteria* or scale* or model* or stratif* or instrument*)):ti,ab
#24.	(decision near/2 (tool* or score or scoring or scale* or model*)):ti,ab
#25.	((score* or scoring) near/2 (tool* or system*)):ti,ab
#26.	(or #23-#25)
#27.	(palliat* or terminal* or dying* or eolc):ti,ab
#28.	(end near/2 life):ti,ab
#29.	((long term or long-term or longterm) near/2 (care* or caring or ill*)):ti,ab

#30.	(advance* near/2 (plan* or decision* or directive* or care or caring)):ti,ab
#31.	[mh ^"terminal care"]
#32.	[mh ^"palliative care"]
#33.	[mh ^"advance care planning"]
#34.	[mh ^"long-term care"]
#35.	(or #27-#34)
#36.	#1 and #26 and #35
#37.	#11 or #22 or #36
#38.	acute decompensated heart failure national registry:ti,ab
#39.	(maggic or "meta-analysis global group in chronic heart failure"):ti,ab
#40.	(("optimize-hf") or "organized program to initiate lifesaving treatment in hospitalized patients with heart failure"):ti,ab
#41.	(heartmate near/2 risk):ti,ab
#42.	("nat-pd-hf" or "needs assessment tool progressive disease heart failure"):ti,ab
#43.	("barcelona bio-heart failure risk calculator" or "bcn bio-hf calculator"):ti,ab
#44.	((adhf or "nt-probnp") near/3 (risk or score*)):ti,ab
#45.	("european collaboration on acute decompensated heart failure" or "elan-hf"):ti,ab
#46.	("biology study to tailored treatment in chronic heart failure" or "biostat-chf"):ti,ab
#47.	("hf-action" or "3c-hf" or "cvm-hf index" or "i-preserve"):ti,ab
#48.	(or #38-#47)
#49.	("supportive and palliative indicators tool" or spict):ti,ab
#50.	gold standards framework prognostic indicator guide:ti,ab
#51.	("get with the guidelines" or gwtg):ti,ab
#52.	(toronto near/3 risk):ti,ab
#53.	(surprise next question*):ti,ab
#54.	((four or "4") next (item or variable) next risk):ti,ab
#55.	edmonton symptom assessment scale:ti,ab
#56.	palliative performance scale:ti,ab
#57.	risk readmission assessment tool:ti,ab
#58.	("resident assessment instrument" or "rai-mds"):ti,ab
#59.	readmission risk score:ti,ab
#60.	destination therapy risk score:ti,ab
#61.	(bardiche next index):ti,ab
#62.	(acci or "adjusted charlson comorbidity index"):ti,ab
#63.	(leitz-miller next score*):ti,ab
#64.	(shocked next predict*):ti,ab
#65.	(pace near/2 (risk or score*)):ti,ab
#66.	(abc near/3 score*):ti,ab
#67.	("muerte subita en insufi- ciencia cardiaca" or (music next risk score*)):ti,ab
#68.	association of health aging and body composition:ti,ab
#69.	("simplified acute physiology score" or saps):ti,ab
#70.	(("cardiopulmonary exercise test" or cpx) next score*):ti,ab
#71.	(columbia next (risk or score*)):ti,ab
#72.	("controlling nutritional status score*" or conut):ti,ab
#73.	("sequential organ failure assessment" or sofa):ti,ab

#74.	(congestion next score*):ti,ab
#75.	penn hf study:ti,ab
#76.	("interagency registry for mechanically assisted circulatory support" or intermacs):ti,ab
#77.	((escape or frankenstein*) near/2 model):ti,ab
#78.	(charm next (program* or model*)):ti,ab
#79.	("acute physiology and chronic health evaluation" or apache*):ti,ab
#80.	(dtrs or "unicamp ii" or phfs or everest or ahfrs or fhfrs or shfm or hfss):ti,ab
#81.	(or #49-#80)
#82.	#1 and #81
#83.	#48 or #82
#84.	((prognos* or predict* or risk*) near/4 (tool* or index or indices or indicat* or calculat* or score* or scoring or system* or criteria* or scale* or model* or stratif* or instrument*)):ti,ab
#85.	(decision near/2 (tool* or score or scoring or scale* or model*)):ti,ab
#86.	((score* or scoring) near/2 (tool* or system*)):ti,ab
#87.	((heart failure or hf) near/4 (score* or scoring or model* or calculator* or index*)):ti,ab
#88.	(or #84-#87)
#89.	validat*:ti,ab
#90.	#1 and #88 and #89
#91.	#83 or #90
#92.	#37 or #91
	Date limits: Inception - 14 August 2017

A.4.15 Salt and Fluid

- What is the clinical and cost effectiveness of salt and/or fluid restriction in people with heart failure?

Medline search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	diet, sodium-restricted/
6.	exp sodium, dietary/
7.	((salt or sodium) adj3 (restrict* or intake or low or diet* or free)).ti,ab.
8.	((fluid* or liquid* or water) adj3 (intake or restrict*)).ti,ab.
9.	(diet* adj2 program*).ti,ab.
10.	or/5-9
11.	Study filters RCT [A.3.2] or SR [A.3.3]
12.	4 and 10 and 11
	Date limits: 1946 – 6 December 2017

Embase search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language

5.	sodium restriction/
6.	fluid intake/
7.	sodium intake/
8.	((salt or sodium) adj3 (restrict* or intake or low or diet* or free)).ti,ab.
9.	((fluid* or liquid* or water) adj3 (intake or restrict*)).ti,ab.
10.	(diet* adj2 program*).ti,ab.
11.	or/5-10
12.	Study filters RCT [A.3.2] or SR [A.3.3]
13.	4 and 11 and 12
	Date limits: 1974 – 6 December 2017

Cochrane search terms

#1.	Standard population [A.2.1]
#2.	[mh ^"diet, sodium-restricted"]
#3.	[mh "sodium, dietary"]
#4.	((salt or sodium) near/3 (restrict* or intake or low or diet* or free)):ti,ab
#5.	((fluid* or liquid* or water) near/3 (intake or restrict*)):ti,ab
#6.	(diet* near/2 program*):ti,ab
#7.	(or #2-#6)
#8.	#1 and #7
	Date limits: Inception – 6 December 2017

A.4.16   Telemonitoring

- What is the clinical and cost effectiveness of telemonitoring and self-monitoring using telephone technology, compared with usual care, in people with heart failure?

Medline search terms

1.	exp heart failure/
2.	((heart or cardiac or myocard*) adj2 (fail* or insufficien* or decomp*)).tw.
3.	1 or 2
4.	exp telemedicine/
5.	exp telecommunications/
6.	case management/
7.	exp comprehensive health care/
8.	disease management/
9.	tele med*.tw.
10.	telecare*.tw.
11.	telecardiol*.tw.
12.	telemonitor*.tw.
13.	teleconsult*.tw.
14.	teleconferenc*.tw.
15.	telecommunicat*.tw.
16.	telephon*.tw.
17.	telehealth*.tw.
18.	telemetry.tw.
19.	(remote* adj3 consult*).tw.

20.	tele-med*.tw.
21.	tele-consult*.tw.
22.	tele-conferenc*.tw.
23.	tele-health*.tw.
24.	home care services/
25.	home care services, hospital-based/
26.	disease management.tw.
27.	nurse clinicians/
28.	nurse practitioners/
29.	nurse led.tw.
30.	monitoring, ambulatory/
31.	telehome.tw.
32.	tele-home.tw.
33.	phone*.tw.
34.	clinical protocols/
35.	patient care planning/
36.	telefon*.tw.
37.	telemed*.tw.
38.	ehealth.tw.
39.	mobile health.tw.
40.	((remote* or distan*) adj2 (care or caring or monitor* or program* or help or support*)).tw.
41.	or/4-40
42.	3 and 41
43.	Excluded study designs and publication types [A.3.1]
44.	42 not 43
45.	Limit 44 to English language
46.	Study filters RCT [A.3.2] or SR [A.3.3]
47.	45 and 46
	Date limits: 2015 – 6 December 2017

Embase search terms

1.	exp heart failure/
2.	((heart or cardiac or myocard*) adj2 (fail* or insufficien* or decomp*)).tw.
3.	1 or 2
4.	exp telemedicine/
5.	exp telecommunications/
6.	case management/
7.	exp comprehensive health care/
8.	disease management/
9.	tele med*.tw.
10.	telecare*.tw.
11.	telecardiol*.tw.
12.	telemonitor*.tw.
13.	teleconsult*.tw.
14.	teleconferenc*.tw.

15.	telecommunicat*.tw.
16.	telephon*.tw.
17.	telehealth*.tw.
18.	telemetry.tw.
19.	(remote* adj3 consult*).tw.
20.	tele-med*.tw.
21.	tele-consult*.tw.
22.	tele-conferenc*.tw.
23.	tele-health*.tw.
24.	home care services/
25.	home care services, hospital-based/
26.	disease management.tw.
27.	nurse clinicians/
28.	nurse practitioners/
29.	nurse led.tw.
30.	monitoring, ambulatory/
31.	telehome.tw.
32.	tele-home.tw.
33.	phone*.tw.
34.	clinical protocols/
35.	patient care planning/
36.	telefon*.tw.
37.	telemed*.tw.
38.	ehealth.tw.
39.	mobile health.tw.
40.	((remote* or distan*) adj2 (care or caring or monitor* or program* or help or support*)).tw.
41.	or/4-40
42.	3 and 41
43.	Excluded study designs and publication types [A.3.1]
44.	42 not 43
45.	Limit 44 to English language
46.	Study filters RCT [A.3.2] or SR [A.3.3]
47.	45 and 46
	Date limits: 2015 – 6 December 2017

Cochrane search terms

#1.	MeSH descriptor: [heart failure] explode all trees
#2.	(heart or cardiac or myocard*) near/2 (fail* or insufficien* or decomp*)
#3.	#1 or #2
#4.	MeSH descriptor: [telemedicine] explode all trees
#5.	MeSH descriptor: [telecommunications] explode all trees
#6.	MeSH descriptor: [case management] this term only
#7.	MeSH descriptor: [comprehensive health care] explode all trees
#8.	MeSH descriptor: [disease management] this term only
#9.	MeSH descriptor: [home care services] this term only

#10.	MeSH descriptor: [home care services, hospital-based] this term only
#11.	MeSH descriptor: [nurse clinicians] this term only
#12.	MeSH descriptor: [nurse practitioners] this term only
#13.	MeSH descriptor: [monitoring, ambulatory] this term only
#14.	MeSH descriptor: [clinical protocols] this term only
#15.	MeSH descriptor: [patient care planning] this term only
#16.	tele*
#17.	(remote near/3 consult*)
#18.	disease next management
#19.	nurse next led
#20.	phone*
#21.	(manage* near/3 program*)
#22.	(nurse* near/3 manage*)
#23.	case next management
#24.	(home near/3 service*)
#25.	nurse next practitioner*
#26.	nurse next clinician*
#27.	care next plan*
#28.	ehealth
#29.	mobile next health
#30.	(remote* or distan*) near/2 (care or caring or monitor* or program* or help or support*)
#31.	#4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30
#32.	#3 and #31
	Date limits: 2015 – 6 December 2017

AMED search terms

1.	exp heart failure congestive/
2.	heart failure.tw.
3.	cardiac failure.tw.
4.	or/1-3
5.	exp telecommunications/
6.	exp comprehensive health care/
7.	disease management/
8.	telemed$.tw.
9.	telecare$.tw.
10.	telecardiol$.tw.
11.	telemonitor$.tw.
12.	teleconsult$.tw.
13.	teleconferenc$.tw.
14.	telecommunicat$.tw.
15.	telephon$.tw.
16.	telehealth$.tw.
17.	telemetry.tw.
18.	(remote$ adj3 consult$).tw.
19.	tele-med$.tw.

20.	tele-consult$.tw.
21.	tele-conferenc$.tw.
22.	tele-health$.tw.
23.	home care services/
24.	disease management.tw.
25.	nurse led.tw.
26.	telehome.tw.
27.	tele-home.tw.
28.	phone$.tw.
29.	clinical protocols/
30.	exp patient care management/
31.	nurses/
32.	rural health services/
33.	community health nursing/
34.	or/5-33
35.	4 and 34
36.	Limit 35 to English
	Date limits: 2015 – 6 December 2017

A.4.17 Transition

- What are the experiences/preferences of staff and patients during transition between different heart failure care settings (including primary, secondary and community care)?

Medline search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	(transition* or transfer*).ti,ab.
6.	(referral* or referred or referring or refer or refers).ti,ab.
7.	discharge*.ti,ab.
8.	"referral and consultation"/
9.	*"continuity of patient care"/ or patient handoff/ or patient transfer/ or transitional care/ or patient discharge/
10.	((primary or secondary) adj3 (interface* or change*)).ti,ab.
11.	((care or caring or serv*) adj2 (continu* or change*)).ti,ab.
12.	or/5-11
13.	Study filter QUAL [A.3.8]
14.	4 and 12 and 13
	Date limits: 1946 – 4 January 2017

Embase search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language

5.	(transition* or transfer*).ti,ab.
6.	(referral* or referred or referring or refer or refers).ti,ab.
7.	discharge*.ti,ab.
8.	((primary or secondary) adj3 (interface* or change*)).ti,ab.
9.	((care or caring or serv*) adj2 (continu* or change*)).ti,ab.
10.	hospital discharge/ or patient referral/ or clinical handover/ or transitional care/
11.	patient care/
12.	or/5-11
13.	Study filter QUAL [A.3.8]
14.	4 and 12 and 13
	Date limits: 1974 – 4 January 2017

PyscINFO search terms

S1.	if(("heart failure" or "cardiomyopathy, dilated" or "shock, cardiogenic" or "ventricular dysfunction" or "cardiac output, low")) or (su.exact.explode("heart") and su.exact.explode("failure")) or ti(((heart or cardiac or myocardial) near/2 (failure or decompensation))) or ti("cardiogenic shock") or ti(((dilated or congestive) n/2 cardiomyopath*)) or ti(((ventricular or ventricle*) n/2 (failure or insufficien* or dysfunction*))) or ti,ab((congestive or acute or decompensat* or chronic) near/2 "heart failure") or ti,ab(("left ventricular" or "left ventricle") near/2 (failure or insufficien* or dysfunction*)) or ti(lvsd) or ab(lvsd)
S2.	su.exact.explode("continuum of care") or (su.exact("professional referral") or su.exact("hospital discharge") or su.exact.explode("client transfer")) or ti,ab(transition* or transfer*) or ti,ab(referral* or referred or referring or refer or refers) or ti,ab(discharge*) or ti,ab((primary or secondary) near/3 (interface* or change*)) or ti,ab((care or caring or serv*) near/2 (continu* or change*))
S3.	((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*)))
S4.	S1 and S2 and S3
	Date limits: 1806 - 4 January 2017

CINAHL search terms

S1.	(MH "heart failure+")
S2.	(MH "cardiac output, decreased")
S3.	(MH "shock, cardiogenic")
S4.	(MH "ventricular dysfunction+")
S5.	ti heart n2 failure or ti heart n2 decompensation or ti cardiac n2 failure or ti cardiac n2 decompensation or ti myocardial n2 decompensation or ti myocardial n2 failure or tx congestive n2 "heart failure" or tx chronic n2 "heart failure" or ti dilated n2 cardiomyopath* or ti congestive n2 cardiomyopath* or ti cardiogenic n2 shock or tx lvsd
S6.	tx ventricular n2 failure or tx ventricular n2 dysfunction or tx ventricular n2 insufficiency or tx ventricle n2 failure or tx ventricle n2 dysfunction or tx ventricle n2 insufficiency
S7.	S1 or S2 or S3 or S4 or S5 or S6
S8.	ti ((transition* or transfer*)) or ab ((transition* or transfer*))

S9.	ti ((referral* or referred or referring or refer or refers)) or ab ((referral* or referred or referring or refer or refers))
S10.	ti discharge* or ab discharge*
S11.	ti ((primary or secondary)) and ti ((interface* or change*))
S12.	ab ((primary or secondary)) and ab ((interface* or change*))
S13.	ti ((care or caring or serv*)) and ti ((continu* or change*))
S14.	ab ((care or caring or serv*)) and ab ((continu* or change*))
S15.	MH continuity of patient care or MH patient discharge
S16.	MH "referral and consultation"
S17.	(MH "transfer, discharge")
S18.	(MH "hand off (patient safety)")
S19.	S8 or S9 or S10 or S11 or S12 or S13 or S14 or S15 or S16 or S17 or S18
S20.	S7 and S19
S21.	Limit S20 to English language
	Date limits: Inception – 4 January 2017

A.5 Health economics search terms

A.5.1 Health economic (HE) reviews

Economic searches were conducted in Medline, Embase and the Centre for Research and Dissemination (CRD).

Medline & Embase search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	Study filter HE [A.3.4]
6.	4 and 5
	Date parameters: 2009 – 06 December 2017

CRD search terms

#1.	Standard population [A.2.1]
	Date parameters: 2015 – 2017

A.5.2 Quality of life (QoL) reviews

Quality of life searches were conducted in Medline and Embase only

Medline & Embase search terms

1.	Standard population [A.2.1]
2.	Excluded study designs and publication types [A.3.1]
3.	1 not 2
4.	Limit 3 to English language
5.	Study filter QOL [A.3.5]
6.	4 and 5
	Date parameters: 2002 – 19 April 2016