

Guideline topic: Cardiac Rehabilitation

General comments

Update of SIGN 57 Cardiac Rehabilitation 2002

Search coverage

Guidelines search

Guidelines International Network (G-I-N) http://www.g-i-n.net/	0 results
National Institute for Clinical Excellence (NICE) http://www.nice.org.uk/	1 result
National Guideline Clearinghouse http://www.guideline.gov/	0 results
TRIP Database http://www.tripdatabase.com/	0 results

Patient searches

The patient search was conducted for all CHD guidelines using the search strategy outlined below in conjunction with the new patient search filter.

Databases searched: Medline, CINAHL, PsychInfo
Total Hits: 3239

Date searched: 10 Jan 2013
Sifted results: **110**

Systematic reviews

Databases covered: Cochrane Database of Systematic Reviews, Medline, Medline in Process, Cinahl, PsychInfo, HMIC, Embase (*if applicable to KQ*), AMED (*if applicable to KQ*)

Dates covered: 2000-2016 (*unless stated otherwise below*)

RCTs

Databases covered: Medline, Medline in Process, Cochrane CENTRAL, Cinahl, HMIC, PsychInfo (*if applicable to KQ*), Embase (*if applicable to KQ*)

Dates covered: 2000-2016 (*unless stated otherwise below*)

Observational/No filter

Databases covered: Medline, Medline in Process, HMIC, Cinahl, PsychInfo, Embase (*if applicable to KQ*), AMED (*if applicable to KQ*)

Dates covered: 2000-2016 (*unless stated otherwise below*)

Economics

Databases covered: Cochrane Library (Cochrane Database of Systematic Reviews, DARE, HTA database, NHS EED), Medline, Medline in Process

Dates covered: 2000-2016

Search strategies

The following are listings of the main Medline strategies used for this guideline. All conventions and symbols are from the Ovid implementation of Medline. Strategies used in other databases were substantially the same, though different terminology may have been used to take account of different thesauri used in non-Medline databases. Search filters were added to identify studies of a particular type (systematic review, RCT etc.) Listings of the search filters used by SIGN can be found on the SIGN Web site.

Patient search stem

1. *Cardiovascular Diseases/
2. Exp *Heart Diseases/
3. 1 or 2

Generic stem (cardiac disease)

1. exp Myocardial Revascularization/
2. ("myocardial revascularization" or "myocardial revascularisation" or "cardi* revascularization" or "cardi* revascularisation").ti,ab.
3. (coronary adj3 angioplast*).ti,ab.
4. ((coronary or rotational) adj3 atherectom*).ti,ab.
5. ("coronary artery bypass" or CABG or "aortocoronary bypass" or "coronary bypass").ti,ab.
6. exp Percutaneous Coronary Intervention/
7. ("percutaneous coronary intervention*" or PCI or "coronary angioplast*").ti,ab.
8. exp Heart Diseases/
9. ("cardiac disease*" or "heart disease*").ti,ab.
10. (arrhythmia* or dysrhythmia* or bradycardia* or tachycardia*).ti,ab.
11. ("atrial fibrillation" or "ventricular fibrillation" or "atrial flutter*" or "ventricular flutter*").ti,ab.
12. ("cardiopulmonary arrest*" or "cardio-pulmonary arrest*" or "heart arrest*" or asystole* or "cardiac arrest*").ti,ab.
13. ("heart failure" or (decompensat* adj2 heart) or "cardiac failure").ti,ab.
14. ("myocardial ischemia" or "myocardial ischaemia" or "ischemic heart disease" or "ischaemic heart disease").ti,ab.
15. ("acute coronary syndrome" or ACS).ti,ab.
16. (angina or stenocardia*).ti,ab.
17. (coronary or cardiac or myocard*).ti,ab.
18. ("myocardial infarct*" or "heart attack*").ti,ab.
19. Heart Transplantation/
20. ((heart or cardiac or coronary) adj3 transplant*).ti,ab.

21. (cardiomyopath* or myocardiopath* or myocardial disease).ti,ab.
 22. or/1-21

Generic stem (rehabilitation)

1. exp Rehabilitation/
2. rehabilitat*.ti,ab.
3. habilitation.ti,ab.
4. "Physical and Rehabilitation Medicine"/
5. Rehabilitation Centers/
6. Rehabilitation Nursing/
7. rh.fs.
8. or/1-7

Scope of searches

KQ	Date of search	Sources searched	Study type & limits	Date range	Initial recall	Sifted results
ALL	03/11/15	Cochrane SR, HTA database, Medline (incl. In Process), Cinahl, PsychInfo	SR	2000-current	751	117
ALL	05/11/15	HMIC	All	2000-current	231	47
2	16/11/15	Cochrane (SR & CENTRAL), Medline (including in Process), Cinahl	All	2000-current	682	12
3	08/12/15 & 09/12/15	Cochrane, Medline (including in Process), Cinahl	All	2000-current	252	16
4	16/11/15	Cochrane (SR), Medline (including in Process), Cinahl	SR Any long-term condition	2000-current	152	36
5	09/12/15	Cochrane (SR and CENTRAL), Medline (including in Process), Cinahl	SR & RCT	2000-current	863	19
5	31/06/16	Medline (including in Process), Cinahl, AMED	All	2000-current	955	21
6	23/05/16	Cochrane (SR), Medline (incl. In Process), AMED, Cinahl	SR	2000-current AMED filter: meta analys* or systematic or review	518	34
7	01/03/16	Cochrane CENTRAL, Medline	RCT	2000-current	648	14

		(including in Process), Cinahl				
8	30/11/15	Cochrane (CENTRAL), Medline (including in Process), Cinahl	All	2000-current	422	23
9	16/11/15	Cochrane (SR), Medline (including in Process), Cinahl	SR Stem searches not used	2000-current	166	5
10	17/11/15	Cochrane (SR), Medline (including in Process), Cinahl	SR Obese or CVD population	2000-current	482	9
11	26/11/15	Cochrane (CENTRAL), Medline (including in Process), Cinahl	All Rehab setting	2000-current	463	28
11	21/03/16	Cochrane (SR), Medline (including in Process), Cinahl, PsychInfo	SR Behavioural interventions Cardiac stem	2000-current	214	17
12	11/12/15	Cochrane (SR and CENTRAL), Medline (including in Process), PsychInfo	SR or RCT	2000-current	800	17
12	11/02/16	Medline (including in Process), PsychInfo	All	2000-current	1200	13
12	07/04/16	Cochrane (SR and CENTRAL), Medline (including in Process), PsychInfo	All Additional term from group member: <i>"collaborative care model"</i> No search stem used	2000-current	525	34
13	17/11/15	Cochrane (SR), Medline (including in Process), PsychInfo	SR PsychInfo SR method for filter	2000-current	298	7
13	15/02/16	Cochrane CENTRAL, Medline (including in	All Cardiac and	2000-current	570	6

		Process), PsychInfo	rehab stem added separately			
14	05/02/16	Cochrane CENTRAL, Medline (including in process), Psychinfo	RCT	2011 -current	245	20
15	26/11/15	Cochrane (CENTRAL), Medline (including in Process), Cinahl, PsychInfo	All	2000-current	222	13
16	19/11/15	Cochrane (SR, CENTRAL), Medline (including in Process), Embase, Cinahl	All Cardiac rehab specific	2000-current	393	9
16	12/04/16	Cochrane (SR and CENTRAL), Medline (including in Process), Embase, Cinahl	SR or RCTs Any setting/ condition	2000-current Cinahl internal filter	949	12
16	15/04/16	Medline (including in Process), Embase, Cinahl	All Any setting/ condition	2000-current	686	16
17	30/11/15	Cochrane (CENTRAL), Medline (including in Process), Cinahl, Embase	All	2000-current	598	32
18	08/12/15 & 09/12/15	Cochrane (SR), Medline (including in Process), Cinahl, PsychInfo	SR PsychInfo no filter used	2000-current	131	11
20	24/11/15	Cochrane (CENTRAL), Medline (including in Process), Cinahl	RCT	2000-current	307	5
20	14/04/16	Medline (including in Process), HMIC	All	2000-current	823	23
21	10/12/15	Cochrane (SR and CENTRAL), Medline (including in Process), Cinahl	All	2000-current	535	19
22	09/05/16	Cochrane (SR), Medline (incl. In Process), Embase, PsychInfo	SR	2005 -current	1336	28

22	13/06/16	Cochrane (CENTRAL), Medline (incl. In Process), Embase, PsychInfo	RCT	2009-current	969	11
All	15/01/16	Cochrane (SR, DARE, HTA, NHS EED), Medline (including in Process)	Economic Evaluations	2000-current	630	36
9	15/01/16	Cochrane (SR, DARE, HTA, NHS EED), Medline (including in Process)	Economic Evaluations	2000-current	106	6
16	15/01/16	Cochrane (SR, DARE, HTA, NHS EED), Medline (including in Process)	Economic Evaluations	2000-current	622	0

Medline search strategies used for specific key questions (in addition to generic stem search):

KQ2 (GP referral)

1. Gatekeeping/
2. (gatekeeper* or gate-keeper* or gatekeeping or gate-keeping).ti,ab.
3. (primary adj2 care adj4 refer*).ti,ab.
4. ((GP or general pract* or family pract* or family doctor* or family physician*) adj4 refer*).ti,ab.
5. (community adj4 refer*).ti,ab.
6. (community adj3 nurs* adj4 refer*).ti,ab.
7. (practice adj3 nurs* adj4 refer*).ti,ab.
8. (primary care adj3 nurs* adj4 refer*).ti,ab.
9. or/1-8

KQ3 (individualised assessment)

1. ((individual* or personal* or "patient centred" or "patient centered" or "person centred" or "person centered") adj5 need*).ti,ab.
2. (tailored adj6 need*).ti,ab.
3. (standard* adj6 program*).ti,ab.
4. or/1-3

KQ4 (case management)

1. Case Management/
2. case management.ti,ab.
3. supported self management.ti,ab.

4. patient centered self management.ti,ab.
5. or/1-4

KQ5 (self-efficacy)

1. self efficacy/
2. exp Self Care/
3. self efficac*.ti,ab.
4. (self care or self-care or selfcare).ti,ab.
5. self manag*.ti,ab.
6. (patient reported outcome* or PROMS).ti,ab.
7. or/1-6

KQ6 (exercise)

1. exp Exercise/
2. exp Exercise Therapy/
3. exp Sports/
4. Physical Fitness/
5. "Physical Education and Training"/
6. Physical Exertion/
7. exercis*.ti,ab.
8. sport*.ti,ab.
9. (physical* adj3 (fit* or fitness or train* or therap* or activit*)).ti,ab.
10. (train* adj4 (strength* or aerobic* or exercis*)).ti,ab.
11. (fitness or exertion*).ti,ab.
12. kinesiotherap*.ti,ab.
13. or/1-12

KQ7 (technologies)

1. Social Media/
2. "social medi*".ti,ab.
3. (twitter or facebook).ti,ab.
4. ("web 2*" or web2*).ti,ab.
5. or/1-4
6. pedometer*.ti,ab.
7. (activity monitor* or activity track* or acceleromet* or fitness monitor* or fitness track*).ti,ab.
8. (fitbit or fitband or fit band or fitness watch*).ti,ab.
9. or/6-8
10. Mobile Applications/
11. (mobile app* or portable electronic app* or portable software app*).ti,ab.
12. (virtual realit* or exergam* or exer gam* or wifit or wi fit).ti,ab.
13. or/10-12
14. (reminder adj2 (messag* or system* or technol*)).ti,ab.
15. (mobile adj3 reminder*).ti,ab.
16. (interactive adj2 (technol* or software)).ti,ab.
17. or/14-16
18. exp Telemedicine/

19. (telehealth* or tele-health* or telemedicine* or tele-medicine*).ti,ab.
20. (mhealth or m-health or "mobile health*").ti,ab.
21. or/18-20
22. 5 or 9 or 13 or 21

KQ8 (dietitian advice)

1. Nutritionists/
2. (nutritionist* or dietician* or dietitian*).ti,ab.
3. 1 or 2
4. Rehabilitation/
5. exp "Physical and Rehabilitation Medicine"/
6. exp Rehabilitation Centers/
7. Rehabilitation Nursing/
8. rehabilitat*.ti,ab.
9. or/4-8
10. 3 and 9

KQ9 (weight loss programmes)

1. ((NHS or national health service) adj3 (weight loss or weight manag*)).ti,ab.
2. counterweight.ti,ab.
3. (counter-weight adj3 program*).ti,ab.
4. (weightwatcher* or weight-watcher*).ti,ab.
5. slimming world.ti,ab.
6. rosemary conley.ti,ab.
7. scottish slimmer*.ti,ab.
8. jenny craig.ti,ab.
9. biggest loser.ti,ab.
10. (TOPS adj2 (club or program*)).ti,ab.
11. (lighterlife or lighter-life).ti,ab.
12. (weight adj2 (program* or club*)).ti,ab.
13. or/1-12

KQ10 (dietary interventions)

1. Food Labeling/
2. (diet adj4 scor*).ti,ab
3. (food adj3 (label* or packag*)).ti,ab
4. (healthy adj3 (cook* or food prepar*)).ti,ab
5. (cooking adj2 demonstrat*).ti,ab
6. (food adj3 demonstrat*).ti,ab
7. "food sampl*".ti,ab
8. (diet* adj3 intervention*).ti,ab
9. or/1-8
10. Obesity/
11. Overweight/
12. (obes* or overweight or "over-weight").ti,ab
13. or/10-12

KQ11 (smoking cessation)

Brief smoking cessation interventions strategy

1. "brief smoking cessation".tw.
2. (brief intervention* adj4 smoking).tw.
3. (brief adj3 smoking cessation).tw.
4. or/1-3

Behavioural smoking cessation interventions strategy

1. exp "Tobacco Use Cessation"/
2. ((smok* or tobacco or cigar* or nicotine) adj3 (quit* or stop* or ceas* or cessation)).ti,ab.
3. exp "Tobacco Use"/
4. "Tobacco Use Disorder"/
5. exp Tobacco Products/
6. or/3-5
7. (quit* or stop* or ceas* or cessation).ti,ab.
8. 6 and 7
9. 1 or 2 or 8

KQ12 (tiered psychological care/ collaborative care)

1. ((matched or stepped) adj3 care).ti,ab.
2. (tier or tiers or tiered).ti,ab.
3. (level* adj2 intervention*).ti,ab.
4. (step* up or step* down).ti,ab.
5. (matrix and psych*).ti,ab.
6. psychologist*.ti,ab.
7. exp Psychology/
8. psycholog*.ti,ab.
9. (psychosocial or psycho social).ti,ab.
10. or/1-9

KQ13 (shared psychology screening)

1. *diagnostic self evaluation/
2. *Needs Assessment/
3. 1 or 2
4. (anxiet* or anxious* or nervous* or worry* or worried).ti,ab.
5. exp Anxiety/
6. (depress* or "low mood*").ti,ab.
7. Depression/
8. (stress* or distress*).ti,ab.
9. Stress, Psychological/
10. manifest anxiety scale/ or mmpi/ or test anxiety scale/
11. or/4-10
12. 3 and 11
13. (shared adj2 (evaluat* or assess* or complet* or screen*)).ti,ab.
14. ((patient-physician or patient nurse or patient clinician) adj2 (evaluat* or assess* or complet* or screen*)).ti,ab.
15. (patient* adj2 self adj2 (evaluat* or complet* or screen* or scale*)).ti,ab.

16. (individual adj2 (evaluat* or complet* or screen*)).ti,ab.
17. or/13-16
18. 11 and 17
19. Symptom Assessment/px [Psychology]
20. 12 or 18 or 19

KQ14 (psychosocial/psychological interventions)

1. exp Cognitive Therapy/
2. (cognitive behavio?r therap* or cognition therap* or cognitive psychotherap* or CBT).ti,ab.
3. (ACT or "acceptance and committment therap*").ti,ab.
4. mindfulness.ti,ab.
5. social support/
6. (social support or peer support or social network* or psychosocial support or psycho-social support).ti,ab.
7. Relaxation Therapy/
8. relaxation.ti,ab.
9. exp Behavior Therapy/
10. (behavio?r adj2 (intervention* or modification* or therap*)).ti,ab.
11. conditioning therap*.ti,ab.
12. exp Counseling/
13. counseling.ti,ab.
14. exp Psychotherapy/
15. (psychotherap* or psycho-therap* or psychosocial therap* or psycho-social therap* or psychosocial treatment* or psycho-social treatment*).ti,ab.
16. (psychoeducation or psycho-education).ti,ab.
17. (psychological adj3 (therap* or treatment*)).ti,ab.
18. or/1-17

KQ15 (carer involvement)

1. Caregivers/
2. Spouses/
3. (caregiver* or care giver* or care-giver* or carer*).ti,ab.
4. (spouse* or husband* or wife or wives or partner*).ti,ab.
5. or/1-4
6. (involv* or participat* or engag* or integrat*).ti,ab.
7. 5 and 6

KQ16 (non-medical prescribing)

1. ("nonmedical prescri*" or "non-medical prescri*").ti,ab.
2. (nurs* adj4 prescri*).ti,ab.
3. (pharmac* adj4 prescri*).ti,ab.
4. (independent adj4 prescri*).ti,ab.
5. (physiotherap* adj4 prescri*).ti,ab.
6. or/1-5

KQ17 (medication adherence)

1. Medication Adherence/
2. (medication adj3 (adherence or non-adherence or nonadherence or non adherence or compliance or non-compliance or non compliance or persistence)).ti,ab.
3. *Patient Compliance/
4. 1 or 2 or 3

KQ18 (behaviour change)

1. Health Behavior/
2. ("health behaviour*" or "health behavior*").ti,ab.
3. Patient Discharge/
4. ("patient discharge" or "discharging patient*").ti,ab.
5. Patient Transfer/
6. Patient Handoff/
7. (handoff or handover or "hand off" or "hand over").ti,ab.
8. "shared care".ti,ab.
9. ("behaviour change" or "behavior change").ti,ab.
10. ("maintenance behaviour*" or "maintenance behavior*").ti,ab.
11. (transition* adj3 care).ti,ab.
12. ("peer support" or "peer mentoring" or "peer counsel*").ti,ab.
13. or/1-12

KQ20 (vocational rehabilitation)

1. Rehabilitation, Vocational/
2. Occupational Health/
3. occupational health.ti,ab.
4. Occupational Medicine/
5. (occupational medicine or industrial medicine).ti,ab.
6. exp Employment/
7. (employment or employed or employable or employability).ti,ab.
8. (return to work or back to work).ti,ab.
9. (unemployment or unemployed).ti,ab.
10. workplace.ti,ab.
11. (labour force* or labor force*).ti,ab.
12. (job adj2 (loss* or lost)).ti,ab.
13. (occupational status or work status or job status or employment status).ti,ab.
14. (work or job).ti,ab.
15. Vocational Guidance/
16. vocational.ti,ab.
17. modified dut*.ti,ab.
18. (reintegrat* or re-integrat*).ti,ab.
19. Absenteeism/
20. (absentee* or medical leave or sick leave or sickness absence or sickness leave).ti,ab.
21. disability management.ti,ab.
22. (workability or work ability or work disability).ti,ab.
23. (work retention or job retention).ti,ab.
24. (occupational rehabilitation or work rehabilitation or job rehabilitation).ti,ab.
25. transitional employment.ti,ab.
26. work harden*.ti,ab.

27. or/1-27

KQ21 (generic rehabilitation)

1. (gener* adj3 rehab*).ti,ab.
2. (long term adj4 rehab*).ti,ab.
3. ((non specific or non condition specific or nonspecific) adj4 rehab*).ti,ab.
4. (shared adj3 rehab*).ti,ab.
5. (merg* adj3 rehab*).ti,ab.
6. (integrat* adj4 rehab*).ti,ab.
7. (cross* adj3 rehab*).ti,ab.
8. (standard* adj3 rehab*).ti,ab.
9. (comprehensive adj3 rehab*).ti,ab.
10. (universal adj3 rehab*).ti,ab.
11. or/1-10

KQ22 (anti-depressants)

1. exp Antidepressive Agents/
2. (antidepress* or anti-depress*).ti,ab.
3. 1 or 2