

Guideline topic: Management of stable angina

General comments

The patient group is defined as those with ischaemic chest pain (angina) not associated with an acute coronary syndrome, both men and women.

Search coverage

Patient searches

The patient search was run for the whole of CHD, rather than just the non-ACS Evidence Review Group.

Databases covered:

Dates covered:

Total hits:

Pre-sifted result:

Guidelines (run on 24th-26th May 2004)

The guideline search used the generic stem. Only guidelines in English and published in 1999 onwards were included in the results.

Websites with relevant guidelines:

Agency for Health Care Research and Quality (AHRQ)

Centre for Clinical Effectiveness (Australia)

National Institute for Clinical Excellence (NICE)

NHS Health Technology Assessment

Swedish Council on Technology Assessment in Health Care (SBU)

National Guidelines Clearinghouse

NeLH Guidelines Finder

Databases covered:

Embase,

Medline,

CINAHL

Total hits: 31 from website search, 35 from database search (after pre-sifting, 1856 initially), reduced to 43 by Moray Nairn

Guidelines evaluated using AGREE instrument:

Systematic reviews (run on 26th-28th May 2004)

This search was run using the generic stem. When sifting general CHD papers were left in as they have been picked up by the broader ischemic heart disease terms.

Databases covered:

Dates covered:

Embase,

Medline,

CINAHL

1999-2004

Cochrane Systematic Reviews

Total hits:

Pre-sifted result:

Sifted result:

1189

145

RCTs

The RCT search was run separately for each subgroup using the subgroup stems, see below.

<i>Databases covered:</i>		<i>Dates covered:</i>
Medline		1999-2004
Embase		
CINAHL		
Cochrane RCTs		
PsycINFO (SG4 only)		
<i>Total hits:</i>	<i>Pre-sifted result:</i>	<i>Sifted result:</i>
SG1 5957	SG1 90	
SG2 6321	SG2 482	
SG3 5601	SG3 419	
SG4 3566	SG4 154	
SG5 KQ23 + 24 1922	SGKQ23 + 24 70	
SG5 KQ25 317	SG5 KQ25 33	37
SG5 KQ26 139	SG5 KQ26 21	15
<i>Observational studies</i>		
<i>Databases covered:</i>		<i>Dates covered:</i>
Medline		1999-2004 (SG4)
Embase		2000-2005 (all other searches)
CINAHL		
PsycINFO (SG4 only)		
<i>Total hits:</i>	<i>Pre-sifted result:</i>	<i>Sifted result:</i>
SG1 KQ1 + 6 - 1961	419	22
SG4 - 3778	254	
SG5 KQ23 + 24 – 1178	17 (none were particularly relevant so an additional search was run with a different strategy – see below)	not given to group
SG5 KQ23 + 34 (new search) - 153	35	7
SG5 KQ25 –		
SG5 KQ26 –		
<i>Diagnostic studies</i>		
<i>Databases covered:</i>		<i>Dates covered:</i>
Medline		2000-2005
Embase		
CINAHL		
<i>Total hits:</i>	<i>Pre-sifted result:</i>	<i>Sifted result:</i>
SG1 KQ2 - 1082	99	5
<i>Economic studies</i> – the economics search was only run for particular key questions. These are KQ1 (chest pain clinics), KQ7 (medical management, i.e. drugs) and KQ11 (surgical management). The searches were based on the strategies developed for the subgroups. Only NEED was searched to identify previously assessed good quality economic papers. The NEED results and the corresponding abstracts were used to select the papers. The full papers were then obtained.		
<i>Databases covered:</i>		<i>Dates covered:</i>
NEED		1999-2005

<i>Total hits:</i>	<i>Pre-sifted result:</i>	<i>Sifted result:</i>
KQ1 - 18	1	1
KQ7 - 103	33	14
KQ10/11 - 151	68	7

Supplementary searches

Databases covered:

Dates covered:

Total hits:

Pre-sifted result:

Sifted result:

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 thesaurii used in non-Medline databases. Search filters were added to identify studies of a particular type (guideline, systematic review, etc.) Listings of the search filters used by SIGN can be found on the SIGN Web site.

Generic stem:

1. Myocardial Ischemia/
2. Coronary Disease/
3. Angina Pectoris/
4. Syndrome X/
5. Coronary Arteriosclerosis/
6. exp Coronary Stenosis/
7. Coronary Vasospasm/
8. angina.tw.
9. (myocardial adj (ischemia or ischaemia)).tw.
10. ((ischaemi\$ or ischemi\$) adj2 chest pain).tw.
11. or/1-10

SG1 stem:

- | | |
|--|---|
| 1. models, nursing/ | 30. ecg.tw. |
| 2. models, theoretical/ | 31. exercise test/ |
| 3. (model\$ adj2 (care or caring)).tw. | 32. (exercise tolerance test\$ or exercise test\$ or stress test\$ or ett or treadmill\$).tw. |
| 4. health services accessibility/ | 33. myocardial perfusion imag\$.tw. |
| 5. ((direct access or cardiological assessment) adj2 (clinic\$ or service\$)).tw. | 34. coronary angiography/ |
| 6. "referral and consultation"/ | 35. ((heart or coronary) adj (angiogra\$ or arteriogra\$)).tw. |
| 7. clinical protocols/ | 36. (angiocardiogra\$ or arteriocardiogra\$).tw. |
| 8. referral protocol\$.tw. | 37. echocardiography, stress/ |
| 9. or/1-8 | 38. echocardiography/ and stress.tw. |
| 10. diagnosis/ or diagnosis, differential/ or early diagnosis/ | 39. (stress adj2 echo\$).tw. |
| 11. risk factors/ | 40. exp magnetic resonance imaging/ |
| 12. exp smoking/ | 41. (magnetic resonance imag\$ or mri).tw. |
| 13. exp alcohol-related disorders/ or alcohol drinking/ | 42. (mr adj (imaging or exam\$)).tw. |
| 14. exp diet/ or exp diet therapy/ | 43. magnetic resonance perfusion imag\$.tw. |
| 15. exp exercise movement techniques/ | 44. perfusion imag\$.tw. |
| 16. exp obesity/ | 45. exp tomography, x-ray computed/ |
| 17. family health/ or family history.tw. | 46. "comput\$ tomograph\$".tw. |
| 18. exp diabetes mellitus/ | 47. (comput\$ adj (axial or assisted) adj tomograph\$).tw. |
| 19. exp cholesterol/ | 48. ((ct or cat) adj scan\$).tw. |
| 20. exp hypertension/ | 49. diagnostic imaging/ |
| 21. or/11-20 | 50. ((non-invasive or non invasive) adj test\$).tw. |
| 22. 21 and 10 | 51. or/28-50 |
| 23. ((discomfort or pain) adj2 (chest or jaw or shoulder or back or arm) adj3 (stress or distress or exertion\$ or | 52. risk assessment/ |

<p>emotion\$ or anger or depression or anxiety or anguish)).tw. 24. clinical presentation.tw. 25. ((patient or medical) adj history).tw. 26. medical history taking/ 27. or/23-26 28. exp electrocardiography/ 29. (electrocardiogra\$ or electriccardiogra\$).tw.</p>	<p>53. risk adjustment/ 54. (risk adj (stratification or stratiifying or assessment or adjustment)).tw. 55. coronary artery surgery study.tw. 56. (CASS and registry).tw. 57. (Duke adj2 database).tw. 58. or/52-57 59. 9 or 22 or 27 or 51 or 58</p>
<p>SG2 stem: 1. exp adrenergic beta-antagonists/ 2. (beta-block\$ or betablock\$).tw. 3. (beta\$ adj3 (block\$ or antagonist\$ or inhibit\$)).tw. 4. or/1-3 5. exp calcium channel blockers/ 6. (calcium adj3 (block\$ or antagonist\$ or inhibit\$)).tw. 7. (calcium channel receptor block\$ or ccb or nicardipine or "clotting factor 4 antagonist\$").tw. 8. or/5-7 9. exp nitrates/ 10. exp nitro compounds/ 11. exp vasodilator agents/ 12. nitrate\$.tw. 13. ((vasodilator or antiangina\$ or anti angina\$) adj (agent\$ or drug\$)).tw. 14. nitroglycerin/ 15. (nitroglycerin\$ or glyceryl trinitrate\$ or glyceryl trinitrate\$ or gtn).tw. 16. or/9-15 17. exp potassium channel blockers/ 18. exp potassium channels/ 19. (potassium adj3 (block\$ or antagonist\$ or inhibit\$)).tw. 20. (potassium channel receptor block\$ or pcb).tw. 21. nicorandil/ 22. (nicorandil or (nicotinamid\$ adj2 nitrate\$)).tw. 23. or/17-22 24. exp angiotensin-converting enzyme inhibitors/ 25. ("angiotensin-converting enzyme" adj (block\$ or antagonist\$ or inhibit\$)).tw. 26. ("dipeptid\$ carboxypeptidase" adj (block\$ or antagonist\$ or inhibit\$)).tw. 27. ((dipeptid\$ or kininase) adj2 (block\$ or antagonist\$ or inhibit\$)).tw.</p>	<p>28. (ace adj (block\$ or antagonist\$ or inhibit\$)).tw. 29. or/24-28 30. exp Hydroxymethylglutaryl-CoA Reductase Inhibitors/ 31. ((hydroxymethylglutaryl or hydroxy methyl glutaryl or hmg) adj3 (block\$ or antagonist\$ or inhibit\$)).tw. 32. (statin\$ or vastatin\$).tw. 33. or/30-32 34. exp platelet aggregation inhibitors/ 35. ((antiplatelet or anti platelet or antithrombocyt\$ or anti thrombocyt\$) adj (agent\$ or drug\$ or therap\$)).tw. 36. (platelet adj (antiaggregant\$ or antagonist\$ or inhibit\$ or block\$)).tw. 37. ((platelet or thrombocyt\$) adj3 aggregation inhibit\$).tw. 38. aspirin/ 39. ticlopidine/ 40. (clopidogrel or methyl ester or plavix or ticlopidine or aspirn\$).tw. 41. ((acetyl salicylic or acetylsalicylic) adj (acid or agent)).tw. 42. or/34-41 43. analgesia, epidural/ 44. anesthesia, epidural/ 45. epidural.tw. 46. or/43-45 47. exp adrenergic alpha-antagonists/ 48. "alpha-2-antagonist\$.tw. 49. ("alpha 2" adj3 (block\$ or antagonist\$ or inhibit\$)).tw. 50. or/47-49 51. 4 or 8 or 16 or 23 or 29 or 33 or 42 or 46 or 50</p>
<p>SG3 stem: 1. exp coronary artery bypass/ 2. ((coronary or heart or cardiac or myocardi\$ or aortocoronary) adj3 (bypass or by-pass)).tw. 3. (cabg or coronary arter\$ bypass or coronary arter\$ by-pass).tw. 4. exp angioplasty/ 5. exp balloon dilatation/ 6. exp angioplasty, transluminal, percutaneous coronary/ 7. (angioplasty or balloon dilatation).tw. 8. (ptca or pta or pci).tw. 9. percutaneous coronary intervention\$.tw. 10. ((percutaneous or coronary or transluminal) adj3 (angioplasty or dilatation or intervention\$)).tw. 11. stents/ 12. stent\$.tw.</p>	<p>22. stellate ganglion block\$.tw. 23. (stellat\$ adj3 block\$).tw. 24. ("stellat\$ ganglia" adj2 block\$).tw. 25. (gangli\$ adj3 block\$).tw. 26. exp electric stimulation therapy/ and exp spinal cord/ 27. (dorsal column stimulat\$ or dcs).tw. 28. ("dorsal column" adj3 stimulat\$).tw. 29. exp nerve block/ 30. ((nerve or neural) adj2 block\$).tw. 31. (phenol ablation or (phenol and ablation)).tw. 32. exp counterpulsation/ 33. (counterpulsation or counter pulsation).tw. 34. exp patient care team/ 35. ((multidisciplinary or "multi disciplinary") adj2 (team\$ or work\$ or network\$)).tw.</p>

<p>13. exp myocardial revascularization/ 14. ((myocardi\$ or coronary or heart or cardiac) adj2 (revasculari?ation or re-vasculari?ation)).tw. 15. coronary restenosis/ 16. coronary disease/ and recurrence/ 17. (restenosis or re-stenosis).tw. 18. ((arterial or artery or arteries or venous or vein\$) adj2 (graft or grafting or grafts)).tw. 19. coronary artery bypass, off-pump/ 20. (off-pump or offpump or "on pump" or onpump or oncab or opcab).tw. 21. stellate ganglion/ and exp nerve block/</p>	<p>36. ((interdisciplinary or "inter disciplinary") adj2 (team\$ or work\$ or network\$)).tw. 37. ((interprofessional or "inter professional") adj2 (team\$ or work\$ or network\$)).tw. 38. ((transdisciplinary or "trans disciplinary") adj2 (team\$ or work\$ or network\$)).tw. 39. (("health care" or "medical care" or "patient care") adj2 (team\$ or work\$ or network\$)).tw. 40. (mdt or mcn).tw. 41. ("managed clinical" adj2 (network\$ or team\$ or work\$)).tw. 42. or/1-41</p>
<p>SG4 stem: As the nature of the questions was such that some needed to be combined (separately) with the angina stem as well as the treatment aspects set 88 was combined with the angina stem before combining with the relevant search filter; while sets 85 and 86 were also combined with the relevant search filters. For the Embase search the strategy was altered, removing nearly all the text-words and only searching for weighted subject headings.</p>	
<p>1. ((cardiac or heart) adj misconception\$).tw. 2. attribution\$.tw. 3. attitude to health/ 4. exp health behavior/ 5. (health adj (belief\$ or attitude\$ or behavio?r\$)).tw. 6. or/1-5 7. cognitive therapy/ 8. behavior therapy/ 9. ("cognitive behavio?r\$ therap\$" or cbt).tw. 10. ((cognitive or behavio?r\$) adj (therap\$ or treatment\$)).tw. 11. relaxation techniques/ 12. (relaxation adj (therap\$ or technique\$)).tw. 13. (activit\$ adj2 (pace or pacing)).tw. 14. stress management.tw. 15. psychotherapy/ 16. (psycho\$ adj (intervention or treatment or education)).tw. 17. exp exercise movement techniques/ 18. ((exercise or physical) adj train\$).tw. 19. hypnosis/ 20. (hypnosis or hypnotherapy).tw. 21. or/7-20 22. ((mental or psychological) adj2 prep\$).tw. 23. adaptation, psychological/ 24. patient education/ 25. health education/ 26. ((patient or health or medical) adj2 (information or knowledge or education or understand\$)).tw. 27. exp communication/ 28. communication.tw. 29. exp health personnel/ 30. 29 and (27 or 28) 31. physician-patient relations/ 32. professional-patient relations/ 33. nurse-patient relations/ 34. professional-family relations/ 35. (leaflet\$ or pamphlet\$ or booklet\$).tw. 36. exp pamphlets/ 37. patient literature\$.tw. 38. or/22-26,30-37 39. cognition disorders/ 40. (cognitive adj (deficit\$ or impairment or</p>	<p>45. brain injuries/ 46. exp frontal lobe/ 47. 45 and 46 48. (frontal adj2 damage).tw. 49. exp memory/ 50. attention/ 51. (memory or concentration).tw. 52. or/39-44,47-51 53. anxiety/ 54. depression/ 55. emotions/ 56. (anxiety or angst or anxious\$ or worry or apprehensi\$).tw. 57. (emotion\$ or depression\$).tw. 58. somatoform disorders/ 59. stress disorders, post-traumatic/ 60. (somati?ation\$ or posttraumatic stress disorder\$ or posttraumatic stress disorder\$ or ptsd).tw. 61. stress, psychological/ 62. (psychological adj (distress or factor\$ or stress)).tw. 63. or/53-62 64. exp "appointments and schedules"/ 65. exp time factors/ 66. (wait or waits or waiting).tw. 67. (time adj (delay\$ or factor\$)).tw. 68. (immediate adj (treatment or referral)).tw. 69. treatment delay\$.tw. 70. or/64-69 71. Coronary Artery Bypass/ 72. (coronary artery bypass or cabg).tw. 73. exp angioplasty/ 74. (percutaneous coronary intervention\$ or pci or pcta).tw. 75. angioplasty.tw. 76. ((cardiac or cardio\$) adj (appointment or referral)).tw. 77. or/71-76 78. exp Adrenergic beta-Antagonists/ 79. exp Calcium Channel Blockers/ 80. exp Potassium Channel Blockers/ 81. exp Hydroxymethylglutaryl-CoA Reductase Inhibitors/ 82. exp Angiotensin-Converting Enzyme Inhibitors/</p>

dysfunction or defect\$).tw. 41. personality disorders/ 42. cognitive ability.tw. 43. ((behavior?r\$ or personality) adj (change or disturbance)).tw. 44. ((cognitive or executive or intellectual) adj (function\$ or dysfunction\$)).tw.	83. (beta blocker\$ or channel blocker\$ or statin\$ or ace inhibitor\$).tw. 84. or/78-83 85. (38 or 52 or 63 or 70) and 77 86. 84 and 52 87. 85 or 86 88. 6 or 21 or 39 or 52 or 63 or 70
SG5 stem (KQ25 and KQ26 were searched separately to KQ23 + 24)	
KQ23 + 24:	
1. health education/ 2. ((patient or health or medical) adj2 (information or knowledge or education or understand\$)).tw. 3. (education\$ adj program\$).tw. 4. support group\$.tw. 5. Physician-Patient Relations/ 6. Professional-Patient Relations/ 7. Nurse-Patient Relations/ 8. doctor-patient relations/ 9. professional-family relations/ 10. leaflet\$.tw. 11. exp PAMPHLETS/ 12. exp INTERNET/ 13. booklet\$.tw. 14. exp Mass Media/ 15. pamphlet\$.tw. 16. tape\$.tw. 17. video\$.tw. 18. sheet\$.tw. 19. (postcard\$ or post card\$).tw. 20. (counsel?r\$ or counsell?r\$).tw. 21. macmillan nurs\$.tw. 22. (care give\$ or caregive\$).tw. 23. (cope or coping).tw. 24. fear.tw. 25. exp COMMUNICATION/ 26. exp ANXIETY/ 27. exp CAREGIVERS/ 28. exp Mental Health/	29. exp Family Health/ 30. exp DEPRESSION/ 31. exp Patient Participation/ 32. exp Patient Care Team/ 33. exp Professional-Family Relations/ 34. exp Truth Disclosure/ 35. *Counseling/ 36. *Pastoral Care/ 37. *ADAPTATION, PSYCHOLOGICAL/ 38. exp Patient Education/ 39. exp SPOUSES/ 40. exp Social Isolation/ 41. (psychosocial or psycho social).tw. 42. psychological distress.tw. 43. exp Social Support/ 44. exp Attitude to Health/ 45. Communication Barriers/ 46. (advice or advisory).tw. 47. ((cooperation or co-operation) adj3 patient\$).tw. 48. exp Patient Acceptance of Health Care/ 49. Patient Dropouts/ 50. "breaking bad news".tw. 51. "information need\$".tw. 52. "information resource\$".tw. 53. patient literature.tw. 54. Tape Recording/ 55. video recording/ 56. or/1-55
KQ25:	
1. exp preoperative care/ 2. ((preop\$ or pre-op\$ or presurg\$ or pre-surg\$ or (pre adj (op\$ or surg\$))) adj2 (assess\$ or evaluat\$ or care or procedure\$ or review\$ or appraisal or consideration\$ or measurement)).tw. 3. ((prepar\$ or prior) adj2 (surg\$ or op\$)).tw. 4. or/1-3	
KQ26:	
1. follow-up studies/ 2. (follow-up or followup).tw. 3. 1 or 2 4. ((structured or controlled or planned or managed or organi?ed) adj (protocol\$ or model\$ or program\$)).tw. 5. primary health care/ 6. family practice/ 7. (general practice or family practice or primary care).tw. 8. or/4-7 9. 3 and 8 10. ((follow-up or followup) adj1 (structure\$ or protocol\$ or model\$ or program\$)).tw. 11. 9 or 10	
KQ23 + 24 – additional information search:	
1. patient education/mt 2. exp counseling/mt	

3. information provision.mp.
4. breaking bad news.mp.
5. (delivery adj2 information).mp.
6. delivering information.tw.
7. (provision adj2 information).mp.
8. advice.mp.
9. advisory service\$.mp.
10. counsel?ing.mp.
11. Comprehension/
12. pamphlets/
13. leaflet\$.mp.
14. exp *Communication/
15. or/1-14