

Guideline topic: Chronic Renal Failure

General comments

Search coverage

Patient searches (run on 14 October 2004)

The patient search stem was run against both the CCI and SIGN patient strategies as a comparison.

Databases covered: **Medline, Embase, CINAHL, PsycInfo** Dates covered: 1999-2004

Total hits:

CCI patient filter– 327 refs

SIGN patient filter –238 refs

Pre-sifted result:

Combined total – 70
refs.

Guidelines (run on) Looked in .

Agency for Health Care Research and Quality (AHRQ) <http://www.ahrq.gov/>

ASERNIP-S <http://www.racs.edu.au/open/asernip-s.htm>

Canadian Medical Association <http://mdm.ca/cpgsnew/cpgs/index.asp>

Centre for Clinical Effectiveness (Australia)

<http://www.med.monash.edu.au/healthservices/cce/>

Health Technology Assessment <http://www.hta.nhsweb.nhs.uk/>

NHS Centre for Reviews and Dissemination

<http://www.york.ac.uk/inst/crd/welcome.htm>

NHS Quality Improvement Scotland <http://www.nhshealthquality.org>

National Institute for Clinical Excellence (NICE) <http://www.nice.org.uk/>

National Electronic Library for Health <http://rms.nelh.nhs.uk/guidelinesfinder/>

National Guideline Clearinghouse <http://www.guidelines.gov/index.asp>

National Health and Medical Research Council (NHMRC)

<http://www.health.gov.au/nhmrc/publications/index.htm>

New Zealand Guidelines Group <http://www.nzgg.org.nz/>

Swedish Council on Technology Assessment in Health Care (SBU)

<http://www.sbu.se/admin/index.asp>

TRIP Database <http://www.tripdatabase.com/>

Databases covered:

Total hits:

Systematic reviews (ran in April 2005): used main stem – see below

Databases covered: MEDLINE, Embase, CINAHL, Dates covered: 1996-2005
Cochrane, PsycInfo

Total hits:

Pre-sifted result: 162

Sifted result: 90

1117

No Filter: This is when the search is not limited to any particular study type i.e. the results will include a mixture of RCT, observational and diagnostic studies

- **KQ2 (ran in October 2005 as no systematic reviews).** This search did not generate many hits, so was not limited to any particular publication type. Used KQ2 stem, and was not combined with the main CKD stem.
- **KQ4 (ran in August 2005 as no systematic reviews).** This search did not generate many hits, so was not limited to any particular publication type. Used KQ4 stem (see below) AND main stem.
- **KQ6C (1995-99 ran in January 2006):** This part of KQ6 was not answered by the rct and obs search from 2000-05.
- **KQ10:**
- **KQ10 (1995-99): Ran in January 2006** Not enough useful evidence was pulled up from the search for 2000-05
- **KQ11 (ran in August 2005 as no systematic reviews).** This search did not generate many hits, so was not limited to any particular publication type. Used KQ11 stem (see below) AND main stem.
- **KQ11 1980-99 (ran in January 2006)**
- **KQ12 (ran in July 2005 as no systematic reviews).** This search did not generate many hits, so was not limited to any particular publication type. Used KQ12 stem (see below) AND main stem.

Databases covered: Medline, Embase, cinahl, cochrane

Dates covered: 2000-2005 (unless otherwise specified)

| Total hits: | Pre-sifted result: | Sifted result: |
|--------------------|--------------------|-------------------|
| KQ2: 2407 | KQ2: 304 | KQ2: 42 |
| KQ 4: 5243 | KQ 4: 140 | KQ4:15 |
| KQ6C: 1197 | KQ6C: 88 | KQ6C: 2 |
| KQ10: 1833 | KQ10: 233 | KQ10: 54 |
| KQ10 (95-99): 1272 | KQ10 (95-99):168 | KQ10 (95-99): |
| KQ11: 2740 | KQ11: 90 | KQ11:5 |
| KQ11 (1980-99): | KQ11 (1980-99): | KQ11 (1980-99): 3 |
| KQ 12: 913 | KQ 12: 87 | KQ12: 7 |

RCTs: A filter was used which limited the results to RCTs. This filter is available on the SIGN website.

- **KQ6c&f (ran in November 2005)**
- **KQ7 (ran in October 2005)**
- **KQ7 (1995-1999) (ran in January 2006)**
- **KQ8 (ran in October 2005)**
- **KQ9 (ran in September 2005)**
- **KQ9 (1995-99) (ran in January 2006)**
- **KQ13 (ran in October 2005)**
- **KQ14 (ran in August 2005)**
- **KQ14 (1995-99) (ran in December 2005)**
- **KQ15&16 (ran in September 2005)**
- **KQ15b 95-99 (ran in January 2006)**

Databases covered: Medline, Embase, Cinahl and Cochrane

Dates covered: 2000-2005 (unless otherwise specified)

| Total hits: | Pre-sifted result: | Sifted result: |
|--------------------|--------------------|-----------------|
| KQ6C_F: 3568 | KQ6C_F: 377 | KQ6C_F: 36 |
| KQ7: 2233 | KQ7: 113 | KQ7: 1 |
| KQ7 (95-99): 1444 | KQ7 (95-99): 161 | KQ7 (95-99): 1 |
| KQ8: 4150 | KQ8: 455 | KQ8:36 |
| KQ9: 1925 | KQ9: 211 | KQ9: 42 |
| KQ9 (95-99): 1154 | KQ9 (95-99): 114 | KQ9 (95-99): 0 |
| KQ13: 2124 | KQ13:17 | KQ13:0 |
| KQ14: 1646 | KQ14: 5 | KQ14:0 |
| KQ14 (95-99): 1594 | KQ14 (95-99): 26 | KQ14 (95-99): 0 |
| KQ15&16: 2445 | KQ15&16: 119 | KQ15&16: |
| KQ15B 95-99: 816 | KQ15B 95-99: 86 | KQ15B 95-99: |

Observational studies: A filter was used which limited the results to observational studies. This filter is available on the SIGN website.

- **KQ1 (ran in November 2005)**
- **KQ6C (ran in January 2006): Not answered by reviews/rcts so an observational search was run. A more specific stem was used than for rcts (see below)**
- **KQ7 (ran in October 2005)**
- **KQ7 (1995-1999) (ran in January 2006)**
- **KQ9 (ran in September 2005)**
- **KQ9 95-99 (ran in January 2006)**
- **KQ13 (ran in October 2005)**
- **KQ14 (ran in August 2005)**
- **KQ14 (1995-99) ran in December 2005**
- **KQ15&16 (ran in September 2005)**
- **KQ15b 95-99 (ran in January 2006)**

Databases covered: Medline, Embase, Cinahl

Dates covered: 2000-2005 (unless otherwise specified)

| | | |
|--------------------|---------------------------|-----------------------|
| <i>Total hits:</i> | <i>Pre-sifted result:</i> | <i>Sifted result:</i> |
| KQ1 (03-05): 8064 | KQ1(03-05): 587 | KQ1(03-05):50 |
| KQ6C: 445 | KQ6C: 95 | KQ6C: 4 |
| KQ7: 2236 | KQ7: 324 | KQ7: 13 |
| KQ7 (95-99): 1154 | KQ7 (95-99): 160 | KQ7 (95-99): 0 |
| KQ9: 1118 | KQ9: 113 | KQ9: 11 |
| KQ9 95-99: 518 | KQ9 95-99: 25 | KQ9 95-99: |
| KQ13: 4033 | KQ13: 359 | KQ13: 6 |
| KQ14: 3400 | KQ14: 167 | KQ14: 2 |
| KQ14 (95-99): 1715 | KQ14 (95-99): 75 | KQ14 (95-99): 5 |
| KQ15&16: 4694 | KQ15&16: 368 | KQ15&16: |
| KQ15B 95-99: 725 | KQ15B 95-99: 24 | KQ15B 95-99: |

Diagnostic studies: A filter was used which limited the results to diagnostic studies. This filter is available on the SIGN website.

- **KQ3A (ran in October 2005)**

Databases covered: Medline, Embase, Cinahl and Cochrane

Dates covered: 2000-05

| | | |
|--------------------|---------------------------|-----------------------|
| <i>Total hits:</i> | <i>Pre-sifted result:</i> | <i>Sifted result:</i> |
| KQ3A: 4175 | KQ3A: 304 | KQ3A: 32 |

Supplementary searches: A search was done for studies relating to ultrasound (KQ3B). The search was limited to Reviews, RCTs, Diagnostic and Observational Studies

Databases covered:

Dates covered:

Medline, Embase, Cinahl, Cochrane

2000-2005

| | | |
|----------------------|---------------------------|-----------------------|
| <i>Total hits:</i> | <i>Pre-sifted result:</i> | <i>Sifted result:</i> |
| REVs_ultrasound: 62 | REVs_ultrasound: 6 | |
| RCTs_ultrasound: 911 | RCTs_ultrasound: 5 | |
| OBS_ultrasound: 1491 | OBS_ultrasound: 198 | |
| DIA_ultrasound: 710 | DIA_ultrasound: 108 | |

Supplementary searches: A search for 1990-99 was done for studies relating to ultrasound (KQ3B). The search was limited to Reviews, RCTs, Diagnostic and Observational Studies

Databases covered:

Dates covered:

Medline, Embase, Cinahl, Cochrane

1990-99

2513

245

Supplementary searches: A search was done for systematic reviews for 1990-95. The aim was to look for systematic reviews that could be used for KQ1

Databases covered:

Dates covered:

Medline, Embase, Cinahl, Cochrane

2000-2005

| | | |
|---|-----------------------------------|----------------------------------|
| Total hits: 433 | Pre-sifted result: 40 | Sifted result: 0 |
| Supplementary searches: In June 2007, a search was run for smoking and CKD. The search was limited to reviews, RCTs and Observational Studies. | | |
| Databases covered: Medline, Embase, Cinahl, Psycinfo, The Cochrane Library | Dates covered: 2000-07 | |
| Sys Revs: 206 RCTs: 439 OBS: 1177 | Sys Revs: 2 RCTs: 1 OBS: 58 | Sys Revs: 0 RCTs: 0 OBS: 8 |

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.

Patient stem: medline

exp Kidney Failure, Chronic/
(chronic adj (renal or kidney) adj failure).tw.
((endstage or end-stage) adj2 (renal or kidney)).tw.
(esrd or eskd).tw.
((kidney\$ or renal) adj2 (disease\$ or failure\$ or sufficien\$ or insufficien\$)).tw.
or/1-5

The following searches listed were used in Medline, and were adapted for other databases.

Main CKD stem (used for systematic review search, and combined with other strategies for NoF, RCT and OBS search)

1. exp Kidney Diseases/
2. (chronic\$ adj3 (nephrop\$ or kidney or renal)).tw.
3. ckd.tw.
4. ((endstage or end-stage) adj2 (renal or kidney\$)).tw.
5. (esrd or eskd or esrf).tw.
6. ((kidney or renal) adj2 (disease\$ or failure\$ or sufficien\$ or insufficien\$)).tw.
7. exp Glomerular Filtration Rate/
8. (glomerul\$ filtration rate\$ or GFR).tw.
9. exp PROTEINURIA/
10. (proteinuri\$ or albuminuri\$).tw.
11. exp HEMATURIA/
12. (hematuri\$ or haematuri\$).tw.
13. exp NEPHROLOGY/
14. or/1-13

KQ1 search strategy – combined with main stem

1. exp risk factors/
2. ((great\$ or high\$) adj2 risk).tw.
3. exp Diabetes Mellitus/
4. diabet\$.tw.
5. exp Hypertension/
6. hypertensi\$.tw.
7. (anti-hyperten\$ or antihyperten\$).tw.
8. ((high\$ or elev\$) adj2 (bp or blood pressure)).tw.
9. exp Cardiovascular Diseases/

10. exp Cardiovascular System/
11. cardi\$.tw.
12. heart\$.ti.
13. (vascu\$ and varico\$).tw.
14. arter\$.tw.
15. myocard\$.tw.
16. coron\$.tw.
17. angin\$.tw.
18. stroke\$.tw.
19. aneurysm\$.tw.
20. angio\$.tw.
21. capill\$.tw.
22. (hypertensi\$ or hypoten\$).tw.
23. blood pres\$.tw.
24. ischem\$.tw.
25. venous\$.tw.
26. vein\$.tw.
27. exp Urologic Diseases/
28. ((urin\$ or ureter\$ or urether\$ or urol\$) adj2 (obs\$ or stone\$ or calcul\$ or infect\$)).tw.
29. UTI.tw.
30. exp Vesico-Ureteral Reflux/
31. ureterolithiasis.tw.
32. bacteriuria.tw.
33. pyuria.tw.
34. ((vesico-ureteral or vesicoureteral) adj reflux).tw.
35. (urin\$ adj reflux\$).tw.
36. exp Rheumatic Diseases/
37. rheumat\$.tw.
38. arthrit\$.tw.
39. gout\$.tw.
40. osteoarthritis.tw.
41. exp connective tissue diseases/ or exp lupus erythematosus, systemic/ or exp scleroderma, localized/ or exp scleroderma, systemic/
42. conn\$ tissu\$ diseas\$.tw.
43. syst\$ lupus\$ erythem\$.tw.
44. SLE.tw.
45. libman-sacks.tw.
46. lupus erythematosus.tw.
47. (lupus\$ adj2 (nephritis or vasculitis)).tw.
48. scleroder\$.tw.
49. morphea\$.tw.
50. dermatosclero\$.tw.
51. sclerosis\$.tw.
52. exp Spinal Injuries/
53. (spin\$ adj2 (fractur\$ or injur\$)).tw.
54. exp Anti-Inflammatory Agents, Non-Steroidal/
55. nsaid\$.tw.
56. ((nonsteroid\$ or non-steroid\$) adj3 (antiinflam\$ or anti-inflam\$)).tw.
57. exp Aged/
58. (aged or elderl\$).tw.
59. exp SMOKING/
60. smok\$.tw.
61. exp "tobacco use cessation"/ or exp smoking cessation/
62. exp Obesity/
63. (obesity or obese).tw.
64. exp socioeconomic factors/
65. (socioeconomic or social or economic or depriv\$ or povert\$).tw.
66. or/1-65

KQ2 search strategy – NOT combined with main stem

1. (cockcroft adj2 gault).tw.

2. MDRD.tw.
3. "Modification of Diet in Renal Disease".tw.
4. levey.tw.
5. exp Cystatins/
6. (cystatin\$ adj2 c).tw.
7. (serum\$ adj2 creatinine\$.tw.
8. (24\$ adj2 creatinine).tw.
9. (creatinine\$ adj2 clear\$.tw.
10. (urin\$ adj2 creatinine\$.tw.
11. (predic\$ adj2 equat\$.tw.
12. ((blood\$ or plasma\$) adj2 creatinine\$.tw.
13. exp CREATININE/
14. or/1-13
15. exp Glomerular Filtration Rate/
16. gfr.tw.
17. (glomer\$ adj2 filtrat\$.tw.
18. (glomer\$ adj2 rate\$.tw.
19. or/15-18
20. 14 and 19
21. limit 20 to (humans and yr="2000 - 2005")

Also searched for lines 1-4 & 6 alone (i.e. did not combine with main stem)

KQ3A search strategy – combined with main stem

1. exp Proteinuria/
2. (proteinuri\$ or albuminuri\$.tw.
3. ((protein\$ and creati\$) adj2 ratio\$.tw.
4. ((albumin\$ and creati\$) adj2 ratio\$.tw.
5. ((protein\$ or albumin\$) adj2 urin\$.tw.
6. (microproteinuri\$ or microalbuminuri\$.tw.
7. exp CREATININE/ur [Urine]
8. (spot adj2 urin\$.tw.
9. (time\$ adj2 urin\$.tw.
10. or/1-9

Also searched for lines 3, 5, 9 and 10 alone (i.e. not combined with main stem)

KQ4 search strategy – combined with main stem

1. exp hematuria/
2. (hematuri\$ or haematuri\$.tw
3. (urin\$ adj2 (blood\$ or bleed\$)).tw
4. (microhematuri\$ or microhaematuri\$.tw

KQ6C_F – combined with main stem (for rct search)

1. exp Diet/
2. exp diet therapy/ or exp diet, protein-restricted/ or exp diet, sodium-restricted/
3. exp Weight Loss/
4. ((protein\$ or sodium\$ or phospha\$ or salt\$) adj3 diet\$.tw.
5. (weight\$ adj2 (loss\$ or reduc\$)).tw.
6. diet\$.tw.
7. nutrition\$.tw.
8. exp overnutrition/
9. (overweight\$ or obese\$.tw.
10. or/1-9
11. exp Proteinuria/
12. (proteinur\$ or albuminur\$.tw.
13. 11 or 12
14. 10 or 13

KQ6C – not combined with main stem (for OBS/NoF search)

1. exp Diet/

2. exp diet therapy/ or exp diet, protein-restricted/ or exp diet, sodium-restricted/
3. exp Weight Loss/
4. ((protein\$ or sodium\$ or phospha\$ or salt\$) adj3 diet\$).tw.
5. (weight\$ adj2 (loss\$ or reduc\$)).tw.
6. diet\$.tw.
7. nutrition\$.tw.
8. exp overnutrition/
9. (overweight\$ or obese\$).tw.
10. or/1-9
11. exp Glomerular Filtration Rate/
12. (glom\$ filt\$ rat\$. or GFR).tw
13. 11 or 12
14. 10 and 14

KQ7 search strategy – combined with main stem

1. exp nutrition disorders/ or exp malnutrition/
2. (malnutrition\$ or undernutrition\$).tw.
3. (nutrition\$ or diet\$).tw.
4. exp Obesity/
5. (malnourish\$ or undernourish\$ or nourish\$ or cachex\$ or emaciat\$).tw.
6. (obese\$ or obesity).tw.
7. exp "Body Weights and Measures"/
8. (body adj2 mass).tw.
9. bmi.tw.
10. exp Nutrition/
11. exp Diet/
12. exp nutrition therapy/ or exp diet therapy/
13. kalori\$.tw.
14. exp Dietetics/
15. exp Body Weight/
16. overweight.tw.
17. (body adj2 (size or fat or weight)).tw.
18. or/1-17

KQ8 search strategy – combined with main stem

1. statin\$.tw.
2. exp Hydroxymethylglutaryl-CoA Reductase Inhibitors/
3. exp Antilipemic Agents/
4. exp hyperlipidemia/
5. (lovastatin\$ or simvastatin\$ or atorvastatin\$ or pravastatin\$ or meglutor\$).tw.
6. hmg-coa.tw.
7. hydroxymethylglutaryl\$.tw.
8. (lipid adj2 (lower\$ or reduc\$)).tw.
9. or/1-8
10. exp Aspirin/
11. aspirin\$.tw.
12. acetylsal\$.tw.
13. or/10-12
14. exp weight loss/ or exp obesity/
15. exp Food Habits/
16. exp nutrition therapy/ or exp diet therapy/ or caloric restriction/
17. exp *diet/ or exp diet, atherogenic/
18. (weight\$ adj3 (los\$ or reduc\$)).tw.
19. or/14-18
20. exp "tobacco use cessation"/ or exp smoking cessation/
21. (smoking or tobacco\$).tw.
22. 20 or 21
23. exp Exercise Movement Techniques/
24. exp Physical Fitness/
25. exercis\$.tw.
26. ((sport\$ or physical\$) adj3 (condition\$ or train\$ or program\$ or fitness\$ or therap\$)).tw.

27. (resist\$ adj2 train\$).tw.
28. exp weight lifting/
29. (weight\$ adj2 (lift\$ or train\$)).tw.
30. (kinesitherap\$ or kinesiotherap\$).tw.
31. (physic\$ adj3 activi\$).tw.
32. or/23-31
33. exp Blood Pressure/
34. exp Hypertension/
35. hypertension.tw.
36. blood pressure.tw.
37. exp Antihypertensive Agents/
38. (anti-hypertensiv\$ or antihypertensiv\$).tw.
39. hypertens\$.tw.
40. or/33-39
41. 9 or 13 or 19 or 22 or 32 or 40
42. exp Cardiovascular Diseases/
43. exp Cardiovascular System/
44. cardi\$.tw.
45. heart\$.ti.
46. (vascu\$ and varico\$).tw.
47. arter\$.tw.
48. myocard\$.tw.
49. coron\$.tw.
50. angin\$.tw.
51. stroke\$.tw.
52. aneurysm\$.tw.
53. angio\$.tw.
54. capill\$.tw.
55. (hypertensi\$ or hypoten\$).tw.
56. blood pres\$.tw.
57. ischem\$.tw.
58. venous\$.tw.
59. vein\$.tw.
60. or/42-59
61. 41 and 60

KQ9 search strategy – combined with main stem

1. exp Vitamins/
2. exp Dietary Supplements/
3. vitamin\$.tw.
4. ((diet\$ or food\$ or nutrit\$) adj3 suppl\$).tw.
5. exp Creatine/
6. creatine\$.tw.
7. exp Amino Acids/
8. exp complementary therapies/ or exp homeopathy/
9. ((alternat\$ or tradit\$ or complemen\$ or herb\$) adj3 (therap\$ or medic\$)).tw.
10. (homeopath\$ or homeotherap\$).tw.
11. exp Drugs, Chinese Herbal/
12. exp medicine, oriental traditional/ or exp medicine, chinese traditional/
13. ((chin\$ or orient\$) adj2 (herb\$ or drug\$ or therap\$ or med\$ or treat\$)).tw.
14. exp Phytotherapy/
15. phytotherap\$.tw.
16. exp Plants, Medicinal/
17. exp Plant Extracts/
18. ((plant\$ or herb\$ or botan\$) adj3 (medic\$ or therap\$ or treat\$ or remed\$)).tw.
19. or/1-18

KQ10 search strategy

1. exp Hyperparathyroidism/
2. hyperparathyroid\$.tw.
3. (endocrin\$ adj2 neoplas\$).tw.

4. (oste\$ adj2 fibrosa\$ adj2 cystica\$).tw.
5. exp Renal Osteodystrophy/
6. exp *bone diseases/ or exp bone diseases, endocrine/ or exp bone diseases, metabolic/
7. exp Osteomalacia/
8. osteomala\$.tw.
9. exp Osteoporosis/
10. osteoporo\$.tw.
11. osteo\$.tw.
12. exp Fractures/
13. exp Calcinosis/
14. (calcinosis or calcification).tw.
15. or/1-14
16. exp Diet Therapy/
17. exp Phosphates/
18. phosphate\$.tw.
19. exp Calcium/
20. exp Calcium, Dietary/
21. (calcium\$ or calcim\$).tw.
22. exp Vitamin D/
23. exp Vitamin D Deficiency/
24. (vit\$ adj2 d).tw.
25. (vit\$ adj2 d adj2 (deriv\$ or analog\$)).tw.
26. exp Calcitriol/
27. exp Exercise Movement Techniques/
28. exp Physical Fitness/
29. exercis\$.tw.
30. ((sport\$ or physical\$) adj3 (condition\$ or train\$ or program\$ or fitness\$ or therap\$)).tw.
31. (resist\$ adj2 train\$).tw.
32. exp weight lifting/
33. (weight\$ adj2 (lift\$ or train\$)).tw.
34. (kinesitherap\$ or kinesiotherap\$).tw.
35. (physic\$ adj3 activ\$).tw.
36. or/16-35
37. 15 and 36
38. limit 37 to (humans and yr= "2000 - 2005")
39. exp Kidney Diseases/
40. (chronic\$ adj3 (nephrop\$ or kidney or renal)).tw.
41. ckd.tw.
42. ((endstage or end-stage) adj2 (renal or kidney\$)).tw.
43. (esrd or eskd or esrf).tw.
44. ((kidney or renal) adj2 (disease\$ or failure\$ or sufficien\$ or insufficien\$)).tw.
45. exp Glomerular Filtration Rate/
46. (glomerul\$ filtration rate\$ or GFR).tw.
47. exp PROTEINURIA/
48. (proteinuri\$ or albuminuri\$).tw.
49. exp HEMATURIA/
50. (hematuri\$ or haematuri\$).tw.
51. exp NEPHROLOGY/
52. or/39-51
53. 38 and 52

KQ11 search strategy – combined with main stem

1. exp Acidosis/
2. acidosis\$.tw
3. exp Bicarbonate
4. ((bicarbonate\$) or (hydrogen carbonate\$)).tw
5. or/1-4

KQ12 search strategy – combined with main stem

1. exp Exercise Movement Techniques/
2. exp Physical Fitness/

3. exercis\$.tw.
4. ((sport\$ or physical\$) adj3 (condition\$ or train\$ or program\$ or fitness\$ or therap\$)).tw.
5. (resist\$ adj2 train\$).tw.
6. exp weight lifting/
7. (weight\$ adj2 (lift\$ or train\$)).tw.
8. (kinesitherap\$ or kinesiotherap\$).tw.
9. (physic\$ adj3 activ\$).tw.
9. or/1-9

KQ13 search strategy

1. exp *Glomerular Filtration Rate/
2. exp *CREATININE/
3. (recip\$ adj2 creat\$).tw.
4. (creat\$ adj3 (graph\$ or plot\$)).tw.
5. (recip\$ adj3 (graph\$ or plot\$)).tw.
6. (patlak adj2 plot\$).tw.
7. or/1-6
8. exp Monitoring, Physiologic/
9. monitor\$.tw.
10. exp Disease Progression/
11. deteriorat\$.tw.
12. declin\$.tw.
13. or/8-12
14. exp Kidney Diseases/
15. (chronic\$ adj3 (nephrop\$ or kidney or renal)).tw.
16. ckd.tw.
17. ((endstage or end-stage) adj2 (renal or kidney\$)).tw.
18. (esrd or eskd or esrf).tw.
19. ((kidney or renal) adj2 (disease\$ or failure\$ or sufficien\$ or insufficien\$)).tw.
20. exp Glomerular Filtration Rate/
21. (glomerul\$ filtration rate\$ or GFR).tw.
22. exp PROTEINURIA/
23. (proteinuri\$ or albuminuri\$).tw.
24. exp HEMATURIA/
25. (hematuri\$ or haematuri\$).tw.
26. exp NEPHROLOGY/
27. or/14-26
28. 13 and 27
29. 7 or 28
30. limit 29 to (humans and yr= "2000 - 2005")

KQ14 Search strategy – combined with main stem

15. exp "Referral and Consultation"/
16. refer\$.tw.
17. exp Time Factors/
18. speciali\$.tw.
19. nephrolog\$.tw.
20. exp SPECIALISM/
21. or/15-20
22. 14 and 21

KQ15&16 Search strategy – combined with main stem

1. exp social support/
2. exp Adaptation, Psychological/
3. exp Stress, Psychological/
4. ((psycholog\$ or social\$ or psychosocial) adj2 (adjust\$ or behavio?r or adapt\$)).tw.
5. exp Counseling/
6. counsel\$.tw.
7. exp *Anxiety/
8. (patient adj3 (anxiety or stress)).tw.
9. exp Stress Disorders, Post-Traumatic/

10. ((post traumatic or post-traumatic) adj2 stress).tw.
11. exp Depression/
12. exp Patient Education/
13. exp Preoperative Care/
14. exp Postoperative Care/
15. (patient adj3 (recov\$ or inform\$ or care or educat\$)).tw.
16. *professional-patient relations/ or *nurse-patient relations/ or *physician-patient relations/
17. (leaflet\$ or booklet\$ or pamphlet\$ or tape\$ or video\$).tw.
18. exp Communication/
19. exp PAMPHLETS/
20. exp Patient Participation/
21. (information adj3 (need\$ or resource\$)).tw.
22. patient literature.tw.
23. exp Patient Care Team/
24. (patient adj2 information).tw.
25. (patient\$ adj3 educat\$).tw.
26. exp patient compliance/ or exp treatment refusal/
27. (patient\$ adj3 (dropout\$ or cooperation\$ or compliance\$ or noncompliance\$)).tw.
28. (treatment\$ adj3 (compliance\$ or noncompliance\$ or refusal\$)).tw.
29. (therap\$ adj3 (compliance\$ or noncompliance\$ or refusal\$)).tw.
30. exp psychological techniques/ or exp psychological tests/ or exp psychotherapy/
31. (psycholog\$ or social\$ or psychosocial\$).tw.
32. exp "Quality of Life"/
33. exp occupational therapy/ or exp physical therapy techniques/
34. ((occupat\$ or rehab\$) adj2 therap\$).tw.
35. exp allied health occupations/ or exp dietetics/ or exp psychology, medical/
36. exp Nutrition/
37. (nutrit\$ or diet\$).tw.
38. exp occupational therapy/ or exp "physical therapy (specialty)"/
39. physiotherap\$.tw.
40. or/1-39
41. exp Patient Care Team/
42. ((multidisciplinary or "multi disciplinary" or multi-disciplinary) and (team\$ or work\$ or collaborat\$)).tw.
43. ((interdisciplinary or "inter disciplinary" or inter-disciplinary) and (team\$ or work\$ or collaborat\$)).tw.
44. ((interprofessional or "inter professional" or inter-professional) and (team\$ or work\$ or collaborat\$)).tw.
45. MDT.tw.
46. patient care team\$.tw.
47. or/41-46

Supplementary Search: Ultrasound (KQ3B) – combined with main stem

1. exp Ultrasonography/
2. ultraso\$.tw or echogra\$.tw
3. exp Kidney Diseases/us [Ultrasonography]
4. endosono\$.tw
5. eus\$.tw
6. or/1-5

Supplementary Search: Smoking and CKD – combined with main stem

1. exp Smoking/
2. (smoke or smoker\$ or smoking).tw.
3. exp "tobacco use cessation"/ or exp smoking cessation/
4. tobacco.tw.
5. exp "Tobacco Use Disorder"/
6. nicotine\$.tw.
7. cigarette\$.tw.
8. or/1-7