Guideline topic: Management of venous thromboembolism in adults

Search coverage

Patient searches
The patient search was conducted using the search strategy outlined below in conjunction with the SIGN patient search filter.


Total hits: 3066    Sifted result: 39

Guidelines
Websites searched for relevant guidelines:
Agency for Health Care Research and Quality (AHRQ) http://www.ahcpr.gov/
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://www.library.nhs.uk/guidelinesFinder/
National Guideline Clearinghouse http://www.guideline.gov/
PRODIGY Knowledge http://www.prodigy.nhs.uk/
Swedish Council on Technology Assessment in Health Care (SBU) http://www.sbu.se/www/index.asp
TRIP Database http://www.tripdatabase.com/

Total hits: 49    Papers selected: 21

Systematic reviews

Total hits: 2477    Sifted result 339    Papers requested: see below

Cochrane

The sifted results were split into 3 to reflect the 3 subgroup areas (prevention, investigation, management) to make sifting more manageable for group members. The number of sifted papers and papers requested for each subgroup are given below.

VTE prevention: Sifted result: 199    Papers requested: 193
VTE investigation: Sifted result: 71    Papers requested: 47
VTE management: Sifted result:110    Papers requested: 78
**RCTs**

**Databases covered:** Medline, Embase, CINAHL, PsycINFO, Cochrane  
**Dates covered:** 1998-2009 (with variations depending on topic; see Scope of Searches below)  
**Searches carried out Jan-Mar 2009**

**Observational studies/ Searches without filter**

**Databases covered:** Medline, Embase, CINAHL, PsycINFO  
**Dates covered:** 1998-2009 (with variations depending on topic; see Scope of Searches below)  
**Searches carried out Jan-Mar 2009**

**Supplementary Searches**

**Databases covered:** Medline, Embase, PsycINFO  
**Dates covered:** 1998-2008 (with variations depending on topic; see Scope of Supplementary Searches below)  
**Searches carried out November 2009**

**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 stem:**

1. Venous Thromboembolism/
2. exp Pulmonary Embolism/
3. exp Venous Thrombosis/
4. ven$ thrombo$.tw.
5. vein$ thrombo$.tw.
6. pulmonary embolism$.tw.
7. dvt.tw.
8. vte.tw.
9. or/1-8

**Generic Stem :**

1. exp Venous Thromboembolism/
2. exp Pulmonary Embolism/
3. exp Venous Thrombosis/
4. exp Thrombophlebitis/
5. (Venous adj thromb*).tw.
6. (Vein adj thromb*).tw.
7. dvt.tw.
8. vte.tw.
9. ((pulmonary or lung) adj (embolism or emboli)).tw.
10. (Pulmonary adj thromb*).tw.
11. pte.tw.
12. thrombophlebitis.tw.
13. or/1-12

Scope of searches for RCTs/Observational studies/searches without filter

<table>
<thead>
<tr>
<th>KQ</th>
<th>Type of studies</th>
<th>Date range</th>
<th>Initial recall</th>
<th>Sifted result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Risk factors)</td>
<td>Observational</td>
<td>2004-2009</td>
<td>3270</td>
<td>109</td>
</tr>
<tr>
<td>1 (Gaps)</td>
<td>Observational</td>
<td>2004-2009</td>
<td>699</td>
<td>47</td>
</tr>
<tr>
<td>2-3 (CAMs)</td>
<td>All (no filter)</td>
<td>2004-2009</td>
<td>602</td>
<td>4</td>
</tr>
<tr>
<td>2 (varicose veins)</td>
<td>RCT</td>
<td>1996-2009</td>
<td>732</td>
<td>59</td>
</tr>
<tr>
<td>5 (travel)</td>
<td>All (no filter)</td>
<td>2004-2009</td>
<td>310</td>
<td>56</td>
</tr>
<tr>
<td>7 (adverse effects)</td>
<td>RCT</td>
<td>1998-2009</td>
<td>1731</td>
<td>69</td>
</tr>
<tr>
<td>9 (DVT diagnosis)</td>
<td>RCT</td>
<td>2004-2009</td>
<td>1547</td>
<td>41</td>
</tr>
<tr>
<td>9 (DVT diagnosis)</td>
<td>Observational</td>
<td>2004-2009</td>
<td>1633</td>
<td>90</td>
</tr>
<tr>
<td>10 (PTE diagnosis)</td>
<td>RCT</td>
<td>2005-2009</td>
<td>611</td>
<td>66</td>
</tr>
<tr>
<td>10 (PTE diagnosis)</td>
<td>Observational</td>
<td>2005-2009</td>
<td>676</td>
<td>126</td>
</tr>
<tr>
<td>11 (hydration, elevation)</td>
<td>All (no filter)</td>
<td>1999-2009</td>
<td>2236</td>
<td>39</td>
</tr>
<tr>
<td>11 (non-lower limb vte)</td>
<td>RCT</td>
<td>1999-2009</td>
<td>453</td>
<td>40</td>
</tr>
<tr>
<td>14 (outpatients)</td>
<td>All (no filter)</td>
<td>2004-2009</td>
<td>941</td>
<td>60</td>
</tr>
</tbody>
</table>

Medline Search strategies used for specific key questions:

**KQ 1 (risk factors)**

14. risk/
15. risk factors/
16. risk*.tw.
17. or/14-16

**KQ 1 (risk factors - gaps)**

14. exp Thalidomide/
15. thalidomide*.tw.
16. or/14-15
17. 13 and 16
18. exp Antipsychotic Agents/
19. antipsychotic*.tw.
20. or/18-19
21. 13 and 20
22. exp Reproductive Techniques, Assisted/
23. (assist* adj5 reproduct*).tw.
24. or/22-23
25. 13 and 24
26. exp Transvestism/ or exp Homosexuality/ or exp Transsexualism/ or exp Bisexuality/ or exp Homosexuality, Male/ or exp Sexual Behavior/
27. transgender*.tw.
28. or/26-27
29. 13 and 28
30. exp Smoking/
31. smoking.tw.
32. or/30-31
33. 13 and 32
34. exp Substance-Related Disorders/
35. (drug adj5 (misuse or abuse)).tw.
36. or/34-35
37. 13 and 36
38. family history.tw.
39. 13 and 38
40. 17 or 21 or 25 or 29 or 33 or 37 or 39

KQ 2/3 (CAMs use in prophylaxis of VTE)
14. exp Complementary Therapies/
15. (complementary and (therap* or medicine)).tw.
16. (alternative and (therap* or medicine)).tw.
17. exp Homeopathy/
18. homeop*.tw.
19. or/14-18

KQ2 (varicose vein procedures)
14. exp Varicose Veins/
15. varicose vein*.tw.
16. exp Sclerotherapy/
17. sclerotherap*.tw.
18. radiofrequency ablation.tw.
19. exp Lasers/
20. laser*.tw.
21. or/14-15
22. or/16-20
KQ 5 (travel)
14. exp Travel/
15. travel.tw.
16. or/14-15

KQ 7 (adverse effects)
14. exp Bleeding/
15. bleeding*.tw.
16. (hemorrhag* or haemorrhag*).tw.
17. (heparin* adj5 thrombocytopenia*).tw.
18. exp Osteoporosis/
19. osteoporosis.tw.
20. exp Bone Density/
21. (bone* adj5 densit*).tw.
22. (rebound adj3 phenomen*).tw.
23. teratogenicit*.tw.
24. pressure effect*.tw.
25. exp Blister/
26. (skin adj5 blister*).tw.
27. or/14-26
28. 13 and 27
29. exp Heparin/ or exp Heparin, Low-Molecular-Weight/
30. exp Warfarin/
31. or/29-30
32. 31 and 27
33. adverse effect*.tw.
34. 31 and 33
35. 13 and 33
36. 28 or 32 or 34 or 35

KQ 9 (DVT diagnosis)
1. exp Venous Thromboembolism/
2. exp Venous Thrombosis/
3. (Venous adj thromb*).tw.
4. (Vein adj thromb*).tw.
5. dvt.tw.
6. vte.tw.
7. or/1-6
KQ 10 (PTE diagnosis)

1. exp Pulmonary Embolism/
2. ((pulmonary or lung) adj (embolism or emboli)).tw.
3. (Pulmonary adj thromb*).tw.
4. pte.tw.
5. or/1-4
6. exp Tomography/
7. exp Magnetic Resonance Imaging/
8. exp Ventilation-Perfusion Ratio/
9. exp Angiography/
10. exp Blood Gas Analysis/
11. exp Oximetry/
12. exp Electrocardiography/
13. exp Troponin/
14. or/6-13
15. tomograph*.tw.
16. magnetic resonance.tw.
17. mri.tw.
18. mra.tw.
19. ventilation perfusion.tw.
20. ((lung or pulmonary or VQ) adj scan*).tw.
21. ((pulmonary or lung) adj angiogra*).tw.
22. pulse oximetry.tw.
23. troponin*.tw.
KQ 11 (VTE management - hydration, elevation)
14. exp Dehydration/
15. exp Fluid Therapy/
16. exp Body Water/
17. hydrat*.tw.
18. or/14-17
19. 13 and 18
20. elevat*.tw.
21. 13 and 20
22. (rais* adj3 (leg* or limb*)).tw.
23. 13 and 22
24. 19 or 21 or 23

KQ11 (non-lower limb vte)
14. exp Arm/
15. exp Upper Extremity/
16. upper limb*.tw.
17. upper extremit*.tw.
18. exp Cerebral Veins/
19. exp "Intracranial Embolism and Thrombosis"/
20. cerebral.tw.
21. exp Portal Vein/
22. portal vein*.tw.
23. or/14-22

KQ 14 (outpatient management)
14. exp Outpatients/
15. outpatient*.tw.
16. out patient*.tw.
17. exp Home Care Services/
18. (home adj5 (treatment* or therap* or management or care)).tw.
19. or/14-18

Scope of supplementary searches

<table>
<thead>
<tr>
<th>KQ</th>
<th>Type of studies</th>
<th>Date range</th>
<th>Initial recall</th>
<th>Sifted result</th>
</tr>
</thead>
</table>


| KQ1 (Myeloma and thalidomide) | 1. exp Multiple Myeloma/ | 2. myeloma*.tw. | 3. or/1-2 | 4. exp Thalidomide/ | 5. thalidomide*.tw. | 6. or/4-5 | 7. 3 and 6 |
| KQ2 (VTE prophylaxis in H&N, ENT and plastic surgery) | 1. exp Surgery, Plastic/ | 2. (plastic and (surger* or surgical)).tw. | 3. (esthetic and (surger* or surgical)).tw. | 4. (aesthetic and (surger* or surgical)).tw. | 5. (cosmetic and (surger* or surgical)).tw. | 6. or/1-5 | 7. exp Head/su [Surgery] | 8. exp Neck/su [Surgery] | 9. exp Ear/su [Surgery] | 10. exp Ear, External/su [Surgery] | 11. exp Ear, Inner/su [Surgery] | 12. exp Ear, Middle/su [Surgery] | 13. exp Nose/su [Surgery] | 14. exp Pharynx/su [Surgery] | 15. exp Otolaryngology/ | 16. exp Ototorhinolaryngologic Diseases/ | 17. exp Ototorhinolaryngologic Surgical Procedures/ | 18. exp Rhinoplasty/ | 19. exp Pharyngectomy/ | 20. exp Pharyngostomy/ | 21. ((head or neck) adj5 (surger* or surgical)).tw. | 22. ((ear or ears or nose or noses or throat or throats) and (surger* or surgical)).tw. | 23. otolaryngolog*.tw. |
KQ12 (Mechanical thrombolysis in ICU)

1. exp Intensive Care Units/ or exp Intensive Care/ or exp Critical Care/
2. exp Critical Illness/
3. (intensive adj5 care).tw.
4. (critical adj5 care).tw.
5. (critical adj5 illness).tw.
6. icu.tw.
7. micu.tw.
8. or/1-7
11. (physical adj3 prophylaxis).tw.
12. (physical adj3 thromboprophylaxis).tw.
13. exp Intermittent Pneumatic Compression Devices/
15. (mechanical adj3 device*).tw.
16. (pneumatic adj3 device*).tw.
17. (pneumatic adj3 compression).tw.
18. (foot adj3 pump*).tw.
19. exp Stockings, Compression/
20. (elastic adj3 stocking*).tw.
22. or/9-21
23. 8 and 22

Update searches

An update search for systematic reviews was carried out on 27/10/09 to identify papers published since the initial literature searches for the guideline were carried out. Dates covered were 2008 to 27 Oct 2009.

<table>
<thead>
<tr>
<th>Type of studies</th>
<th>Date range</th>
<th>Initial recall</th>
<th>Sifted result</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR</td>
<td>2008-2009</td>
<td>657</td>
<td>88</td>
</tr>
</tbody>
</table>