Table 7. Procedural characteristics of randomized controlled trials evaluating patinets who had major orthopedic surgery.

| Study,  Year | Group | N | Primary surgery % | Cemented fixation  % | Surgical approach % | Mean duration of surgery  min (SD) | Mean duration of anesthesia  min (SD) | Anesthesia  % | Mean LOS, d |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Yokote, 2011 | Fondaparinux | 84 | 100 | 0 | AL: 100 | --- | --- | GA: 100 | --- |
|  | Enoxaparin | 83 | 100 | 0 | AL: 100 | --- | --- | GA: 100 | --- |
|  | Placebo | 83 | 100 | 0 | AL: 100 | --- | --- | GA: 100 | --- |
| Fuji, 2010 | Dabigatran 150mg | 126 | 100 | --- | --- | 109.2 (44.2) | --- | GA: 77.0 Non-GA: 23.0 |  |
|  | Dabigatran 220mg | 129 | 100 | --- | --- | 108.9 (44.2) | --- | GA: 74.4 Non-GA: 25.6 |  |
|  | Placebo | 124 | 100 | --- | --- | 108.8 (46.9) | --- | GA: 74.2 Non-GA: 25.8 |  |
| Chin, 2009 | Enoxaparin | 110 | --- | --- | --- | 93.0 (55-155)\* | --- | GA: 58.18  RA: 41.82 | 8.1  (4-19)\* |
|  | Control | 110 | --- | --- | --- | 94.2 (45-195)\* | --- | GA: 57.27 RA: 42.73 | 7.9  (4-24)\* |
| Ginsberg, 2009 | Dabigatran 150mg QD | 871 | 100 | --- | --- | 91 (30) | --- | GA: 54.0  RA: 45.8 | --- |
|  | Dabigatran 220mg QD | 857 | 100 | --- | --- | 91 (28) | --- | GA: 52.9  RA: 46.3 | --- |
|  | Enoxaparin | 868 | 100 | --- | --- | 90 (28) | --- | GA: 51.7  RA: 47.5 | --- |
| Edwards, 2008 THA | Enoxaparin + IPC | 65 | --- | --- | --- | --- | --- | --- | 3.0 |
|  | Enoxaparin | 59 | --- | --- | --- | --- | --- | --- | 3.13 |
| Edwards, 2008 TKA | Enoxaparin + IPC | 76 | --- | --- | --- | --- | --- | --- | 3.1 |
|  | Enoxaparin | 77 | --- | --- | --- | --- | --- | --- | 3.3 |
| Fuji, 2008 THA | Enoxaparin 40mg QD | 80 | 100 | 43.8 | --- | 123.6 (39) | --- | GA: 16.3 RA: 0 | --- |
|  | Enoxaparin 20mg BID | 90 | 100 | 46.7 | --- | 123 (39.6) | --- | GA: 21.1 RA: 0 | --- |
|  | Placebo | 86 | 100 | 40.7 | --- | 129 (46.8) | --- | GA: 16.3 RA: 0 | --- |
| Fuji, 2008 TKA | Enoxaparin 40mg QD | 74 | 100 | 77.0 | --- | 132 (46.8) | --- | GA: 18.9 RA: 0 | --- |
|  | Enoxaparin 20mg BID | 84 | 100 | 84.5 | --- | 127.2 (37.2) | --- | GA: 21.4 RA: 0 | --- |
|  | Placebo | 79 | 100 | 78.5 | --- | 126.6 (39) | --- | GA: 12.7 RA: 0 | --- |
| Thorey, 2008 | Early release tourniquet | 20 | --- | 100 | --- | 58 (18) | --- | GA: 100 | --- |
|  | Late release tourniquet | 20 | --- | 100 | --- | 51 (17) | --- | GA: 100 | --- |
| Eriksson, 2007a | Dabigatran 150mg QD | 703 | 100 | --- | --- | 91 (30) | --- | GA: 24 RA: 47 GA+RA: 29 | --- |
|  | Dabigatran 220mg QD | 679 | 100 | --- | --- | 91 (28) | --- | GA: 22 RA: 49 GA+RA: 29 | --- |
|  | Enoxaparin | 694 | 100 | --- | --- | 90 (28) | --- | GA: 22 RA: 48 GA+RA: 30 | --- |
| Eriksson, 2007b | Dabigatran 150mg QD | 1163 | 100 | --- | --- | 85 (29) | --- | GA: 24 RA: 66 GA+RA: 10 | 9  (7-12)† |
|  | Dabigatran 220mg QD | 1146 | 100 | --- | --- | 85 (29) | --- | GA: 26 RA: 66 GA+RA: 8 | 9  (7-12)† |
|  | Enoxaparin | 1154 | 100 | --- | --- | 87 (29) | --- | GA: 24 RA: 68 GA+RA: 8 | 9  (7-12)† |
| Lassen, 2007 | Enoxaparin | 152 | --- | --- |  | 96 (42-199.8)\* | --- | GA: 30.2  RA: 54.4 | 6  (2-24)\* |
|  | Warfarin | 153 | --- | --- |  | 96.6  (40.2- 250.2)\* | --- | GA: 35.8  RA: 50.3 | 6  (3-38)\* |
| Bonneux, 2006 | Fondaparinux | 55 | 96.36 | --- | --- | --- | --- | GA+RA:100 | --- |
|  | Enoxaparin | 54 | 92.59 | --- | --- | --- | --- | GA+RA:100 | --- |
| Senaran, 2006 | Enoxaparin | 50 | --- | --- | --- | --- | --- | GA: 100 | --- |
|  | Heparin | 50 | --- | --- | --- | --- | --- | GA: 100 | --- |
| Westrich, 2006 | Minimum hyperflexed knee | 55 | 100 | 100 | --- | --- | --- | RA: 100 | --- |
|  | Standard hyperflexed knee | 63 | 100 | 100 | --- | --- | --- | RA: 100 | --- |
| Eriksson, 2005 | Dabigatran 50mg BID | 389 | 100 | --- | --- | 84 (30-234)\* | --- | GA: 26.3 RA:73.7 | --- |
|  | Dabigatran 150mg BID | 390 | 100 | --- | --- | 90 (30-324)\* | --- | GA: 27.3  RA: 72.7 | --- |
|  | Dabigatran 300mg QD | 385 | 100 | --- | --- | 84 (30-234)\* | --- | GA: 25.8  RA: 74.2 | --- |
|  | Dabigatran 225mg BID | 393 | 100 | --- | --- | 84 (30-216)\* | --- | GA: 27.5  RA: 72.5 | --- |
|  | Enoxaparin | 392 | 100 | --- | --- | 90 (24-276)\* | --- | GA: 27.9  RA: 72.1 | --- |
| Farag, 2005 | Epidural Anesthesia | 16 | --- | --- | --- | --- | --- | RA: 100 | --- |
|  | Spinal Anesthesia | 22 | --- | --- | --- | --- | --- | RA: 100 | --- |
| Lachiewicz, 2004 | IPC (Venaflow) | 206 | 86.89 | --- | --- | --- | --- | GA: 14.56  RA: 84.95 GA+RA: 0.49 | --- |
|  | IPC (Kendal) | 217 | 82.95 | --- | --- | --- | --- | GA: 11.98 RA: 87.56 GA+RA: 0.46 | --- |
| Silbersack, 2004 | Enoxaparin + IPC | 68 | 100 | 42.65 | --- | 89 (55-177)\* | 133  (80-195)\* | GA: 27.94  RA: 72.06 | --- |
|  | Enoxaparin + GCS | 63 | 100 | 46.03 | --- | 93 (46-159)\* | 137  (70-210)\* | GA: 26.98 RA: 73.02 | --- |
| Eriksson, 2003 | Extended fondaparinux | 327 | --- | 23.9 | --- | 99 (27-335)\* | --- | GA: 31.2  RA: 67.6 GA+RA: 1.2 | --- |
|  | Fondaparinux | 329 | --- | 25.2 | --- | 95 (27-255)\* | --- | GA: 31.0  RA: 67.5 GA+RA: 1.5 | --- |
| Kim, 2003 | Cemented | 51 | --- | 50 | --- | --- | --- | --- | --- |
|  | Non-cemented | 51 | --- |  | --- | --- | --- | --- | --- |
| Lassen, 2002 | Fondaparinux | 1140 | 89 | 60 | --- | 138 (48) | --- | GA: 35 RA: 61 GA+RA: 5 | --- |
|  | Enoxaparin | 1133 | 87 | 60 | --- | 144 (52.2) | --- | GA: 38 RA: 57 GA+RA: 4 | --- |
| Pitto, 2002 | Bone vacuum cement technique | 65 | 100 | 100 | DL: 100 | 75 (8) | --- | GA: 100 | 11.5 (2) |
|  | Standard cement technique | 65 | 100 | 100 | DL: 100 | 71 (11) | --- | GA: 100 | 12 (2.5) |
| Prandoni, 2002 | Extended warfarin | 184 | --- | --- | --- | --- | --- | GA: 97.0 | 9  (5-18)\* |
|  | Warfarin | 176 | --- | --- | --- | --- | --- | GA: 97.2 | 9  (4-20)\* |
| Turpie, 2002 | Fondaparinux | 1128 | 84 | 51 | --- | 148.8 (57) | --- | GA: 70 RA: 26 GA+RA: 4 | --- |
|  | Enoxaparin | 1129 | 87 | 53 | --- | 147 (57) | --- | GA: 72 RA: 23 GA+RA: 5 | --- |
| Warwick, 2002 | Enoxaparin | 112 | 100 | --- | --- | --- | --- | RA: 83 | --- |
|  | VFP | 117 | 100 | --- | --- | --- | --- | RA: 86 | --- |
| Barden, 2001 | Modified position | 84 | 100 | 100 | AL: 100 | --- | --- | --- | --- |
|  | Conventional figure four positioning | 76 | 100 | 100 | AL: 100 | --- | --- | --- | --- |
| Bauer, 2001 | Fondaparinux | 517 | 92.5 | 93.2 | --- | 127 (39) | --- | GA: 74.7  RA: 24.4 GA+RA: 1.0 | --- |
|  | Enoxaparin | 517 | 92.6 | 93.6 | --- | 128 (42) | --- | GA:71.4  RA: 27.5 GA+ RA: 1.2 | --- |
| Comp, 2001 THR | Extended enoxaparin | 224 | 78.6 | --- | --- | --- | --- | GA: 75.0  RA: 25.0 | --- |
|  | Enoxaparin | 211 | 78.2 | --- | --- | --- | --- | GA: 69.7  RA: 30.3 | --- |
| Comp, 2001 TKR | Extended enoxaparin | 217 | 72.4 | --- | --- | --- | --- | GA: 67.7  RA: 32.3 | --- |
|  | Enoxaparin | 221 | 76.0 | --- | --- | --- | --- | GA: 67.9  RA: 32.1 | --- |
| Eriksson, 2001 | Fondaparinux | 831 | --- | 21.2 | --- | 101 (39) | --- | GA:31.5  RA: 66.7 GA+RA: 1.8 | --- |
|  | Enoxaparin | 842 | --- | 21.8 | --- | 104 (44) | --- | GA:32.8  RA: 65.2 GA+RA: 2.0 | --- |
| Fitzgerald, 2001 | Warfarin | 176 | 100 | 92.0 | --- | 121.2 (55.8) | --- | GA: 61.9  RA: 38.1 | --- |
|  | Enoxaparin | 173 | 100 | 91.3 | --- | 119.4 (44.4) | --- | GA: 64.7  RA: 35.3 | --- |
| Hull, 2000 | Dalteparin (preoperative) | 496 | 81.85 | 22.58 | --- | --- | --- | --- | --- |
|  | Dalteparin (postoperative) | 487 | 81.52 | 25.05 | --- | --- | --- | --- | --- |
|  | Warfarin | 489 | 85.89 | 22.49 | --- | --- | --- | --- | --- |
| Kennedy, 2000 | Aspirin | 73 | --- | 100 | --- | 64 | --- | GA: 45.21 RA: 54.79 | --- |
|  | VFP | 70 | --- | 100 | --- | 59 | --- | GA: 60  RA: 41.43 | --- |
| Colwell, 1999 | Enoxaparin | 1516 | 100 | --- | --- | --- | --- | --- | --- |
|  | Warfarin | 1495 | 100 | --- | --- | --- | --- | --- | --- |
| Levy, 1999 | Fibrin adhesive | 29 | --- | 100 | --- | --- | --- | --- | --- |
|  | No fibrin adhesive | 29 | --- | 100 | --- | --- | --- | --- | --- |
| Planes, 1999 | Enoxaparin | 248 | 100 | --- | --- | 89 (44) | 161 (56) | --- | --- |
|  | Tinzaparin | 251 | 100 | --- | --- | 87 (39) | 159 (61) | --- | --- |
| TIFDED Study Group, 1999 | Enoxaparin | 66 | --- | --- | --- | 69 (33) | --- | --- | --- |
|  | Dalteparin | 66 | --- | --- | --- | 70 (26) | --- | --- | --- |
| Wakankar, 1999 | Tourniquet | 37 | --- | 100 | --- | --- | --- | GA: 100 | --- |
|  | No tourniquet | 40 | --- | 100 | --- | --- | --- | GA: 100 | --- |
| Kim, 1998 | Aspirin | 50 | 100 | 0 | Modified Gibson: 100 | --- | --- | GA: 100 | --- |
|  | Control | 50 | 100 | 0 | Modified Gibson: 100 | --- | --- | GA: 100 | --- |
| Lassen, 1998 | Extended dalteparin | 140 | 88.2‡ | 61.43 | PL: 100 | 110 (55-280)\* | --- | GA: 37.14 RA: 62.86 | --- |
|  | Dalteparin | 141 |  | 67.38 | PL: 100 | 105 (50-275)\* | --- | GA: 38.30 RA: 61.70 | --- |
| Rader, 1998 | Heparin | 116 | 100 | --- | THA L: 100 TKA AM: 100 | THA: 72(14) TKA: 86(18) | --- | GA:45.69 RA:54.31 | 16.4  (13-21)\*‡ |
|  | Enoxaparin | 130 | 100 | --- | THA L:100 TKA AM: 100 | THA:74(17) TKA: 88(15) | --- | GA:40.77 RA:59.23 |  |
| Ryan, 1998 | IPC | 50 | 100 | --- | --- | --- | --- | RA: 100 | --- |
|  | GCS | 50 | 100 | --- | --- | --- | --- | RA: 100 | --- |
| Warwick, 1998 | Enoxaparin | 143 | 100 | 64.34 | P: 61 | --- | --- | RA: 87 | --- |
|  | VFP | 147 | 100 | 66.67 | P: 56 | --- | --- | RA: 84 |  |
| Andersen, 1997 | Extended dalteparin | 20 | --- | 35 | --- | 99 (60-140)\* | 149  (120-180)\* | --- | --- |
|  | Dalteparin | 21 | --- | 43 | --- | 105 (60-180)\* | 165  (120-270)\* | --- | --- |
| Dahl, 1997 | Extended dalteparin | 117 | 92.5‡ | 79.1 | --- | 107 | --- | GA: 0.88‡ RA: 99.12‡ | --- |
|  | Dalteparin | 110 |  | 84.1 | --- | 107 | --- |  | --- |
| Eriksson, 1997a | Desirudin | 225 | 100 | 81 | --- | 101 (30) | --- | GA:5 RA: 88 GA+RA: 6 | --- |
|  | UFH | 220 | 100 | 75 | --- | 104 (30) | --- | GA:6 RA: 86 GA+RA: 9 | --- |
| Eriksson, 1997b | Desirudin | 1043 | 100 | 44.6 | --- | 82.0 (22-297)† | --- | RA: 55.7 | --- |
|  | Enoxaparin | 1036 | 100 | 44.3 | --- | 80.0 (25-345)† | --- | RA: 55.8 | --- |
| Francis, 1997 | Dalteparin | 271 | 76.38 | 29.52 | --- | 161 (72) | 221 (75) | GA:67.53 RA:32.47 | --- |
|  | Warfarin | 279 | 69.53 | 29.75 | --- | 163 (62) | 225 (67) | GA:63.44 RA:36.56 | --- |
| Nilsson, 1997 | Extended enoxaparin | 131 | 100 | --- | L:100 | 102 (66-312)\* | --- | GA: 3.8  RA: 86.3 GA+RA: 9.9 | --- |
|  | Enoxaparin | 131 | 100 | --- | L: 100 | 114 (60-300)\* | --- | GA: 6.1  RA: 84.0 GA+RA: 9.9 | --- |
| Planes, 1997 | Extended enoxaparin | 90 | --- | --- | AL: 6.36‡ PL: 93.64‡ | --- | 127.67 (19.95) | GA: 58.38‡ RA: 41.62‡ | --- |
|  | Enoxaparin | 89 | --- | --- |  | --- | 125.83 (19.77) |  | --- |
| Samama, 1997 | Enoxaparin | 85 | 100 | 74.1 | A: 24.7  P: 71.8 | 70.1 (27.3) | --- | RA: 100 | --- |
|  | Placebo | 85 | 100 | 67.1 | A: 21.2 P: 71.6 | 69.2 (27.9) | --- | RA: 100 | --- |
| Eriksson, 1996 | Desirudin | 277 | 100 | 67.7 | --- | --- | --- | RA: 51.5 | --- |
|  | UFH | 277 | 100 | 67.5 | --- | --- | --- | RA: 51.6 | --- |
| Kalodiki, 1996 | Enoxaparin + GCS | 32 | 100 | 0 | --- | 98 (50-185)\* | --- | GA: 100 | --- |
|  | Enoxaparin | 32 | 100 | 0 | --- | 98 (45-215)\* | --- | GA: 100 | --- |
|  | Placebo | 14 | 100 | 0 | --- | 96 (60-135)\* | --- | GA: 100 | --- |
| Laupacis, 1996 | Cemented | 124 | 100 | 100 | DL: 100 | --- | --- | GA: 85.5  RA: 14.5 | --- |
|  | Non-cemented | 126 | 100 | 100 | DL: 100 | --- | --- | GA: 90.5  RA: 9.5 | --- |
| Leclerc, 1996 | Warfarin | 334 | 93.4 | 89.2 | --- | 124.3 (38.5) | --- | GA:85.9 RA:14.1 | --- |
|  | Enoxaparin | 336 | 92.3 | 89.0 | --- | 126.2 (44.7) | --- | GA:87.2 RA:12.8 | --- |
| Lotke,1996 | Aspirin | 166 | --- | --- | --- | --- | --- | --- | --- |
|  | Warfarin | 136 | --- | --- | --- | --- | --- | --- | --- |
| Schwartsmann, 1996 | Enoxaparin | 52 | 100 | 62 | AL: 100 | 90.8 | --- | RA: 100 | --- |
|  | UFH | 47 | 100 | 47 | AL: 100 | 93.6 | --- | GA: 2  RA: 97.87 GA+RA: 0 | --- |
| Stannard, 1996 | UFH then aspirin + VFP | 25 | 88.0 | 0 | P: 100 | 106 (85-128)\* | --- | GA: 16.0  RA: 84.0 | --- |
|  | UFH then aspirin | 25 | 100 | 0 | P: 100 | 111 (87-140)\* | --- | GA: 12.0  RA: 88.0 | --- |
|  | VFP | 25 | 92.0 | 0 | P: 100 | 113 (91-135)\* | --- | GA: 20.0  RA: 80.0 | --- |
| Stone, 1996 | Enoxaparin | 25 | 100 | 100 | P: 100 | --- | --- | --- | --- |
|  | IPC | 25 | 100 | 100 | P: 100 | --- | --- | --- | --- |
| Westrich, 1996 | Aspirin + VFP | 61 | 100 | 100 | --- | --- | --- | RA: 100 | --- |
|  | Aspirin | 61 | 100 | 100 | --- | --- | --- | RA: 100 | --- |
| Abdel-Salam, 1995 | Tourniquet | 40 | 100 | 100 | --- | 60-105§ | --- | GA: 100 | 12  (9-20)\* |
|  | No tourniquet | 40 | 100 | 100 | --- | 60-95§ | --- | GA: 100 | 12 (8-19)\* |
| Avikainen, 1995 | Enoxaparin | 83 | --- | 42.17 | --- | --- | --- | GA:29.69 RA:78.31 | --- |
|  | UFH | 84 | --- | 30.95 | --- | --- | --- | GA:1.19 RA: 72.62 | --- |
| Colwell, 1995 | Enoxaparin | 228 | --- | --- | --- | --- | --- | --- | --- |
|  | Heparin | 225 | --- | --- | --- | --- | --- | --- | --- |
| Warwick, 1995 | Enoxaparin | 78 | 100 | --- | --- | --- | --- | --- | --- |
|  | Control | 78 | 100 | --- | --- | --- | --- | --- | --- |
| Williams-Russo, 1996 | General Anesthesia | 81 | 100 | 100 | --- | 88 (32) | --- | GA: 100 | 12.7 (4.3) |
|  | Regional Anesthesia | 97 | 100 | 100 | --- | 85 (33) | --- | RA: 100 | 12.1 (4.5) |
| Colwell, 1994 | Enoxaparin 30mg Q12h | 195 | 86 | 23 | --- | --- | --- | GA:66 RA:33 | --- |
|  | Enoxaparin 40mg QD | 203 | 83 | 27 | --- | --- | --- | GA:63 RA:35 | --- |
|  | UFH | 209 | 87 | 29 | --- | --- | --- | GA:65 RA:34 | --- |
| Fauno, 1994 | Enoxaparin | 92 | 100 | 65.22 | --- | 104 (20) | --- | GA: 10.87 | --- |
|  | UFH | 93 | 100 | 62.37 | --- | 102 (24) | --- | GA: 19.35 | --- |
| Leiberman, 1994 | Aspirin + IPC | 113 | 100 | 17.74|| | PL: 100 | 86 | --- | Hypotensive regional: 100 | --- |
|  | Aspirin | 118 | 100 | 13.49|| | PL: 100 | 87 | --- | Hypotensive regional: 100 | --- |
| Menzin, 1994 | UFH | 209 | --- | --- | --- | 162 (78) | --- | --- | 11.3 |
|  | Enoxaparin 40mg QD | 202 | --- | --- | --- | 156 (84) | --- | --- | 9.9 |
|  | Enoxaparin 30mg Q12h | 192 | --- | --- | --- | 150 (66) | --- | --- | 9.5 |
| Santori,1994 | Heparin | 65 | 100 | --- | DL: 100 | 65 (9.89) | --- | GA: 100 | --- |
|  | VFP | 67 | 100 | --- | DL: 100 | 70 (11.98) | --- | GA: 100 | --- |
| Hull, 1993 | Tinzaparin | 715 | 84.62 | 54.13 | --- | --- | 128 (52) | GA:53.85 RA: 20.97 GA+RA: 25.17 | --- |
|  | Warfarin | 721 | 84.47 | 57.98 | --- | --- | 127 (48) | GA:53.81 RA: 20.94 GA+RA: 25.24 | --- |
| Fordyce, 1992 | VFP | 39 | 100 | 100 | DL: 12.82 P: 87.18 | --- | 104.5 | GA: 7.69 | --- |
|  | Control | 40 | 100 | 100 | DL: 17.50 P: 82.50 | --- | 112.6 | GA: 15.00 | --- |
| Francis, 1992 | Warfarin | 103 | 100 | 24.53 | AL: 100 | --- | 198 (36) | GA: 69.90 RA: 30.10 | 9‡ |
|  | EPC | 98 | 100 | 25.51 | AL: 100 | --- | 205 (40) | GA: 61.22 RA: 38.78 |  |
| Jorgensen, 1992 | Dalteparin | 30 | --- | --- | --- | 57 (25 -115)† |  | GA: 66.67  RA: 30 | 14  (2-117)† |
|  | Placebo | 38 | --- | --- | --- | 60 (35-105)† |  | GA: 53  RA: 45 | 16  (3-50)† |
| Wilson, 1992 | VFP | 28 | --- | --- | --- | 139.2 (34.9) | --- | --- | --- |
|  | Control | 31 | --- | --- | --- | 132.1 (32.4) | --- | --- | --- |
| Bailey, 1991 | Warfarin | 45 | 57.8 | 80.9 | L:100 | --- | --- | GA: 82.2 RA:6.7 | --- |
|  | IPC | 50 | 54 | 75.5 | L:100 | --- | --- | GA: 80 RA:14 | --- |
| Eriksson,1991 | Dalteparin | 67 | --- | 79.10 | AL: 100 | 123 (22) | --- | GA: 14.93 RA:85.07 | --- |
|  | UFH | 69 | --- | 79.71 | AL: 100 | 124 (29) | --- | GA: 7.25 RA:92.75 | --- |
| Jorgensen, 1991 | General Anesthesia | 22 | --- | --- | --- | --- | --- | GA: 100 | --- |
|  | Epidural Anesthesia | 17 | --- | --- | --- | --- | --- | RA: 100 | --- |
| Lassen, 1991 | Tinzaparin | 93 | 100 | 65.6 | PL: 100 | 117 (55-200) † | --- | GA: 72.0  RA: 28.0 | --- |
|  | Placebo | 97 | 100 | 71.1 | PL: 100 | 123 (50-250) † | --- | GA: 69.1  RA: 30.9 | --- |
| Levine, 1991 | Enoxaparin | 333 | --- | 38.74 | --- | 166 (56.6) | --- | --- | --- |
|  | UFH | 332 | --- | 39.16 | --- | 172 (67.7) | --- | --- | --- |
| Mitchell, 1991 | General Anesthesia | 38 | 100 | 76.4 | --- | 121 | --- | GA: 100 | 11 |
|  | Epidural Anesthesia | 34 | 100 |  | --- | 122 | --- | RA: 100 | 10.4 |
| Planes, 1991 | General Anesthesia + Enoxaparin | 62 | 100 | --- | PL: 100 | 73.7 (2.4) | --- | GA: 100 | --- |
|  | Epidural Anestheisa + Enoxaparin | 61 | 100 | --- | PL: 100 | 73.3 (2.3) | --- | RA: 100 | --- |
|  | Epidural Anesthesia alone | 65 | 100 | --- | PL: 100 | 74.9 (1.7) | --- | RA: 100 | --- |
| Torholm, 1991 | Dalteparin | 58 | 76 | --- | --- | --- | --- | GA: 88 RA: 12 | --- |
|  | Placebo | 54 | 80 | --- | --- | --- | --- | GA: 81 RA: 19 | --- |
| Woolson, 1991 | Aspirin + IPC | 70 | 75|| | 65|| | TT: 25||  PL: 75|| | 124 | --- | --- | 9 |
|  | Warfarin + IPC | 69 | 68|| | 68|| | TT: 32|| PL: 68|| | 125 | --- | --- | 9 |
|  | IPC | 73 | 72|| | 63||¶ | TT: 28|| PL: 72|| | 121 | --- | --- | 10 |
| Haas, 1990 Unilateral | Aspirin | 36 | 100 | --- | --- | --- | --- | RA: 97‡ | --- |
|  | IPC | 36 | 100 | --- | --- | --- | --- |  | --- |
| Haas, 1990 Bilateral | Aspirin | 22 | 100 | --- | --- | --- | --- | RA: 97‡ | --- |
|  | IPC | 25 | 100 | --- | --- | --- | --- |  | --- |
| Sorenson, 1990 | Tinzaparin | 31 | --- | --- | --- | --- | --- | --- | --- |
|  | Placebo | 33 | --- | --- | --- | --- | --- | --- | --- |
| Dechavanne,  1989 | Dalteparin 2500U Q12h | 41 | --- | 61.9 | PL: 88 | 121.1 (59.1) | --- | GA: 100 | 16.6 (4.8) |
|  | Dalteparin 5000U QD | 41 | --- | 46.3 | PL: 92 | 112.4 (34.3) | --- | GA: 100 | 17.1 (4.7) |
|  | Heparin | 40 | --- | 56.1 | PL: 83 | 115.1 (51.7) | --- | GA: 100 | 17.2 (5.4) |
| Monreal, 1989 | Dalteparin | 46 | --- | --- | --- | 94 (54) | --- | --- | --- |
|  | Heparin | 44 | --- | --- | --- | 91 (51) | --- | --- | --- |
| Powers, 1989 | Warfarin | 65 | --- | --- | --- | --- | --- | --- | --- |
|  | Aspirin | 66 | --- | --- | --- | --- | --- | --- | --- |
|  | Placebo | 63 | --- | --- | --- | --- | --- | --- | --- |
| Planes, 1988 | Enoxaparin | 124 | --- | 62.1 | --- | 63 (30) | 138.9 (78.3) | GA: 100 | --- |
|  | Heparin | 113 | --- | 69.91 | --- | 66 (23) | 141.9 (73.2) | GA: 100 | --- |
| Barre, 1987 | Dalteparin | 40 | --- | 100 | --- | 73.8 (50-115)\* | --- | RA:100 | 15.6 |
|  | Heparin | 40 | --- | 100 | --- | 86.1 (50-160)\* | --- | RA:100 | 15.2 |
| Paiement, 1987 | Warfarin | 72 | --- | --- | --- | --- | --- | --- | --- |
|  | IPC | 66 | --- | --- | --- | --- | --- | --- | --- |
| Alfaro, 1986 | Aspirin 250mg/d | 30 | --- | --- | --- | --- | --- | --- | --- |
|  | Aspirin 1g/d | 30 | --- | --- | --- | --- | --- | --- | --- |
|  | Control | 30 | --- | --- | --- | --- | --- | --- | --- |
| Turpie, 1986 | Enoxaparin | 50 | --- | --- | --- | 128.84 (26.23) | --- | --- | --- |
|  | Placebo | 50 | --- | --- | --- | 122.78 (23.20) | --- | --- | --- |
| McKenzie, 1985 | General Anesthesia | 20 | --- | --- | --- | 79.4 (4.1) | --- | GA: 100 | --- |
|  | Spinal Anesthesia | 20 | --- | --- | --- | 93.5 (5.6) | --- | RA: 100 | --- |
| Welin-Berger, 1982 | Heparin | 20 | --- | --- | --- | 118 | --- | --- | --- |
|  | Control | 20 | --- | --- | --- | 103 | --- | --- | --- |
| Modig, 1981 | General Anesthesia | 15 | --- | 100 | --- | 161.3 (34.5) | --- | GA: 100 | --- |
|  | Epidural Anesthesia | 15 | --- | 100 | --- | 147 (27.9) | --- | RA: 100 | --- |
| McKenna, 1980 | Aspirin | 9 | --- | --- | --- | --- | --- | --- | 16‡ |
|  | Placebo | 12 | --- | --- | --- | --- | --- | --- |  |

\*Mean (range)

†Median (range)

‡Value for the total study population

§Range

||Percent of hips

¶ Cemented or hybridprosthesis

Abbreviations: A=anterior; AL=anteriolateral; AM=anteriomedial; ASA=aspirin; BID=twice daily; d=days; DL=direct lateral; GA=general anesthesia; GCS=graduated compression stockings; HFS=hip fracture surgery; IPC=intermittent pneumatic compression device; L=lateral; LOS=length of stay; min=minutes; mg=milligram; ML=midline longitudinal; N=number enrolled; P=posterior; PL=posteriolateral; QD=daily; RA=regional anesthesia; SD=standard deviation; THA=total hip arthroplasty; THR=total hip replacement; TKA= total knee arthroplasty; TKR=total knee replacement; TT=transtrochanteric; UFH=unfractionated heparin; VFP=venous foot pump