**Supplementary Table 1: Included Studies**

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| **Supplemental Table 1.** |
| **Author & Year** | **Study Location** | **Total Weekend Patients** | **Total Weekday Patients** | **Patient Population** | **Weekend Definition** | **Mortality Definition** | **Positive Weekend Effect** | **Increased Weekend Mortality, %** | **Different Weekend Staffing** | **Lower Weekend Procedure Rate** | **Longer Weekend Procedure Delay Time** | **Higher Weekend Illness Severity** |
| Helsinki Group 2012 | EU | 483 | 944 | NR | Fri 15:00-Mon 8:00 | 3 month | N | n/a | N | n/a | N | N |
| Albright, KC 2009 | NA | 800 | 1411 | NR | Fri 17:01-Mon 8:59 | in hosp; 90 d | N | n/a | N | N | n/a | N |
| Albright, KC 2012 | NA | 722 | 1363 | NR | Fri 17:01-Mon 8:59 | in hosp; 90 d | N | n/a | N | N | n/a | N |
| Al-Lawati, JA 2012 | ME | 1102 | 3514 | CV | Th 8a-Sat 8a | 30 d and 1 yr | N | n/a | N | M ( angio) | N | N |
| Ananthakrishnan, AN 2009 | NA | 97,002 | 322,937 | GI | midnt Fri-midnt-Sun | in hospital | M | 22 | Y | Y | n/a | N |
| Arabi, Y 2006 | ME | 711 | 653 | ICU | Wed 18:00-Sat 7:59a | in hospital | N | n/a | N | n/a | n/a | N |
| Arbabi, S 2005 | NA | 10,311 | 20,375 | TR | midnt Fri-midnt-Sun | in hospital | N | n/a | N | n/a | n/a | U |
| Arias, Y 2004 | NA | 7,052 | 13,495 | Gen | Fri 19:00-Mon 7:00 | 48 hr | N | n/a | Y | n/a | n/a | N |
| Aujesky, D 2009 | NA | 3286 | 12,245 | Gen | midnt Fri-midnt-Sun | 30 day all cause mortality | Y | 17 | Y | n/a | n/a | Y |
| Aylin, P 2010 | EU | 999,062 | 3,318,804 | Gen | Sat/Sun | in hospital | Y | 10 | Y | n/a | n/a | N |
| Barba, R 2006 | EU | 8431 | 27,652 | Gen | midnt Fri-midnt-Sun | 48 h - short; global in hospital | M | 40 | Y | n/a | n/a | N |
| Barba, R 2012 | EU | 69,770 | 219,307 | Gen | midnt Fri-midnt-Sun | in hospital | Y | 5 | Y | n/a | n/a | N |
| Barnett, MJ 2002 | NA | 30,579 | 125,557 | ICU | Sat/Sun | in hospital | Y | 9 | Y | n/a | n/a | Y |
| Becker, DJ 2007 | NA | 263,068 | 659,009 | CV | Sat/Sun | 30, 60, 90, 180, 360 d | M | 38 | Y | M ( 365 PTCA) | n/a | N |
| Bejanyan, N 2010 | NA | 103 | 303 | Gen | Fri 17:00-midnt Sun | 15, 30 d all cause mortality | N |  | Y | n/a | M (­3x lumen insert) | n/a |
| Bell, CM 2001 | NA | 1,005,573 | 2,784,344 | Med | Sat/Sun | in hospital | M | 19 | Y | n/a | n/a | N |
| Bhonagiri, D 2011 | AS | 49,332 | 195,725 | ICU | Sat/Sun | in hospital | Y | 3 | Y | n/a | n/a | Y |
| Busse, JW 2004 | NA | U | U | TR | Sat/Sun | in hospital | N | n/a | Y | n/a | n/a | n/a |
| Button, LA 2011 | EU | 5686 | 18,285 | GI | Sat/Sun | 30 day all cause mortality | Y | 13 | Y | Y | Y | N |
| Carmody, IC 2002 | NA | 3118 | 4897 | TR | Sat/Sun | in hospital | N | n/a | N | n/a | n/a | N |
| Carr, BG 2010 | NA | 1488 | 2894 | TR | Sat/Sun | in hospital | N | n/a | N | n/a | N | N |
| Carr, BG 2011 | NA | 37,349 | 29,271 | TR | Fri 18:00-Mon 8:59 | in hospital | N | n/a | N | n/a | N | N |
| Chang, GM 2011 | NA | 186,829 | 601,182 | Gen | Sat/Sun | 30 day all cause mortality | Y | 3 | Y | n/a | n/a | n/a |
| Clark, K 2012 | NA | U | U | ICU | not defined | not defined | N | n/a | Y | n/a | n/a | n/a |
| Clark, K 2007 | NA | U | U | ICU | Sat/Sun | in hospital | Y | 58 | Y | n/a | n/a | n/a |
| Clarke, MS 2010 | AS | 14,631 | 39,765 | Gen | Sat/Sun | 2 d and 30 d | M | 15 | Y | n/a | n/a | N |
| Cram, P 2004 | NA | 180,758 | 461,102 | Gen | Sat/Sun | in hospital | Y | 3 | Y | n/a | n/a | N |
| Crowley, RW 2009 | NA | 1502 | 3968 | NR | Sat/Sun | 7, 14, 30 d | N | n/a | Y | n/a | n/a | n/a |
| Crowley, RW 2009 | NA | 3704 | 10,117 | NR | Sat/Sun | 7, 14, 30 d | Y | 15 | Y | n/a | n/a | U |
| Daugaard, CL 2012 | EU | U | U | OR | not defined | in hospital, 30 d | N | n/a | Y | n/a | n/a | U |
| Dasenbrock, HH 2012 | NA | 502 | 2212 | NR | Sat/Sun | in hospital | N | n/a | Y | Y | n/a | N |
| de Groot, NL 2012 | EU | 167 | 404 | GI | Fri 23:00-Mon 7:59 | 30 day all cause mortality | Y | 268 | Y | n/a | N | N |
| Deshmukh, A 2012 | NA | 16,949 | 69,548 | CV | midnt Fri-midnt-Sun | in hospital | Y | 24 | Y | Y | Y | n/a |
| Dorn, SD 2010 | NA | 23,339 | 75,636 | GI | midnt Fri-midnt-Sun | in hospital | Y | 9 | Y | Y | Y | Y |
| Ensminger, SA 2004 | NA | 8108 | 20,976 | ICU | Fri 17:00-Mon 7:00 | in hospital | N | n/a | N | n/a | n/a | Y |
| Evangelista, PA 2008 | SA | 617 | 2561 | CV | Sat/Sun | in hospital | Y | 71 | Y | n/a | n/a | n/a |
| Fang, J 2010 | NA | 5579 | 15,078 | NR | Fri 16:00-Mon 8:00 | 7 day all cause mortality | Y | 12 | N | N | N | N |
| Fonarow, GC 2008 | NA | 10,746 | 37,866 | CV | Sat/Sun | in hospital | N | n/a | Y | n/a | n/a | N |
| Foss, NB 2006 | EU | 118 | 332 | OR | Fri 16:00-Sun 16:00 | in hospital, 5 + 30 d | N | U | Y | n/a | N | Y |
| Fredriksson, M 2010 | EU | U | U | CV | not defined | in hospital | Y | U | Y | n/a | N | n/a |
| Freemantle, N 2012 | EU | U | U | Gen | Sat/Sun | in hospital | M | U | Y | n/a | n/a | U |
| Gaies, MG 2012 | NA | U | U | ICU | Fri 7:00-Mon 7:00 | in hospital | Y | 440 | Y | n/a | n/a | n/a |
| Gallerani, M 2012 | EU | 1239 | 3320 | Surg | Sat/Sun | in hospital | Y | 32 | Y | N | n/a | N |
| Gordon, HS 2005 | NA | 10,132 | 68,414 | Surg | 1) Weekend admission = Fri/Sat; 2) Weekend surgery = Sat/Sun | 30 day all cause mortality | Y | 34 | Y | n/a | n/a | n/a |
| Handel, A 2012 | EU | 1,245,482 | 4,025,845 | Gen | not defined | not defined | Y | 42 | Y | n/a | n/a | N |
| Hansen, KW 2012 | EU | 25,451 | 66,718 | CV | Sat/Sun | 2, 7, 30, 365 d | M | 10 | Y | M | n/a | n/a |
| Hasegawa, Y 2005 | AS | 279 | 855 | NR | Sat/Sun | in hospital | Y | U | Y | n/a | n/a | N |
| Hixson, ED 2005 | NA | 640 | 5344 | ICU | Sat/Sun | in hospital | N | n/a | N | n/a | n/a | N |
| Hoh, BL 2010 | NA | 159,606 | 439,181 | NR | Sat/Sun | in hospital | N | n/a | Y | N | n/a | n/a |
| Hong, JS 2010 | AS | 25,663 | 71,803 | CV | Sat/Sun | 30 day all cause mortality | Y | 21 | Y | M (↓ same day & 30 day CAG & PCI, same day CABG) | n/a | N |
| Horwich, TB 2009 | NA | 17,822 | 63,988 | CV | Sat/Sun | in hospital | Y | 13 | Y | Y | n/a | M |
| Jairath, V 2011 | EU | 1499 | 5250 | GI | Sat/Sun | 30 day all cause mortality | N | n/a | Y | Y | Y | N |
| James, MT 2010 | NA | 45,203 | 169,759 | Gen | Sat/Sun | in hospital, 3d | Y | 7 | Y | n/a | n/a | N |
| Jauss, M 2010 | EU | 2351 | 6413 | NR | Sat 8:00-Mon 8:00 | in hospital, 7 d | N | n/a | N | N | n/a | N |
| Jiang, F 2011 | AS | 95 | 218 | NR | Fri 18:01-Mon 7:59 | in hospital | N | n/a | N | n/a | n/a | N |
| Jneid, H 2008 | NA | 21 496 | 41,318 | CV | Fri 18:00 - Mon 7:00 | in hospital | N | n/a | Y | n/a | Y | n/a |
| Kazley, AS 2010 | NA | 25,610 | 73,148 | NR | not defined | in hospital | N | n/a | Y | N | n/a | n/a |
| Kim, SC 2012 | AS | 334 | 913 | NR | Sat/Sun | 3 month | N | n/a | N | N | n/a | N |
| Koike, S 2012 | AS | 58,837 | 114,300 | CV | Sat 9:00-Mon 8:59 | 30 day all cause mortality | N | n/a | U | n/a | n/a | n/a |
| Kostis, WJ 2007 | NA | 61,152 | 170,012 | CV | Sat/Sun | in hospital, 7,14,21,30,180, 365 d | Y | 6 | U | Y | n/a | N |
| Krüth, P 2008 | EU | 4115 | 3857 | CV | Fri 18:00-Mon 8:00 | in hospital | Y | 2 | U | M (↓ PCI rate) | M (↑ DTB time) | M |
| Kuukasjärvi, P 2000 | EU | U | U | Surg | not defined | not defined | N | n/a | U | N | n/a | n/a |
| Lairez, O 2009 | EU | U | U | CV | Sat/Sun | in hospital | N | n/a | U | n/a | n/a | n/a |
| Laupland, KB 2008 | NA | 3698 | 16672 | ICU | Sat/Sun | in hospital | N | n/a | N | n/a | n/a | U |
| Laupland, KB 2010 | NA | 1878 | 5045 | Gen | Sat/Sun | 30 day all cause mortality | N | n/a | N | n/a | n/a | U |
| Laupland, KB 2012 | NA | 577 | 1531 | Gen | Sat/Sun | in hospital | N | n/a | U | n/a | n/a | n/a |
| Laupland, KB 2011 | EU | 2611 | 10,761 | ICU | Sat/Sun | in hospital | N | n/a | Y | n/a | n/a | U |
| Lee, KK 2008 | AS | 248 | 263 | ICU | Sat 8:00-Sun 7:59 | in hospital | N | n/a | N | n/a | n/a | N |
| Madej-Fermo, OP 2012 | NA | 241 | 676 | NR | Sat/Sun | in hospital | N | n/a | N | N | N | U |
| Manfredini, R 2009 | EU | 15,706 | 48,485 | CV | Sat/Sun | 30 day all cause mortality | N | n/a | U | n/a | n/a | n/a |
| Marco, J 2010 | EU | 99,772 | 330,108 | Gen | Sat/Sun | 48 hr; in hospital | Y | 7 | Y | n/a | n/a | Y |
| Matsui, K 2007 | AS | 1279 | 3526 | CV | Sat/Sun | in hospital, 30d, 1 y | N | n/a | Y | N | n/a | N |
| McKinney, JS 2011 | NA | 37,321 | 97,120 | NR | Sat/Sun | 90 day all cause mortality | Y | 5 | Y | M (↓ carotid endarterectomy only) | n/a | N |
| Mikulich, O 2011 | EU | 5335 | 20,478 | Gen | not defined | 30 d in-hospital | N | n/a | N | n/a | n/a | N |
| Myers, RP 2009 | NA | 9237 | 27,497 | GI | Sat/Sun | in hospital | N | n/a | Y | Y | N | M |
| Nanchal, R 2012 | NA | 248,592 | 895,115 | Gen | Sat/Sun | in hospital | Y | 16 | Y | N | M (↑ IVC filter placement delay) | N |
| Niewada, M 2012 | EU | 5924 | 13,743 | NR | Fri 15:00-Sun midnt | not defined | Y | 14 | Y | N | n/a | M |
| Obel, N 2007 | EU | 228 | 555 | ICU | Fri 00:00-Sat 23:59 | 28 day, 2 y | N | n/a | U | n/a | n/a | N |
| Ogbu, UC 2011 | EU | 19,147 | 63,072 | NR | Sat/Sun | 7 day all cause mortality | Y | 27 | Y | n/a | n/a | Y |
| Orman, ES 2012 | NA | 32,079 | 59,580 | Surg | Fri 19:00-Mon 8:00 | 30, 90, 365 day mortality | N | n/a | U | n/a | n/a | M |
| Palmer, WL 2012 | EU | 23,297 | 70,324 | NR | Sat/Sun | 7 day all cause mortality | Y | 18 | Y | Y | n/a | N |
| Ricciardi, R 2011 | NA | 6,842,030 | 23,149,591 | Gen | Sat/Sun | in hospital | Y | 10 | Y | n/a | n/a | Y |
| Ryan, JW 2005 | NA | 10,804 | 45,548 | CV | Fri 19:00-Sun 7:00 | in hospital | N | n/a | U | N | Y | M |
| Saposnik, G 2007 | NA | 6629 | 20,047 | NR | Sat/Sun | 7 day in house mortality | Y | 17 | Y | n/a | n/a | N |
| Schilling, PL 2010 | NA | 40,060 | 126860 | Gen | Sat/Sun | in hospital | Y | 8 | Y | n/a | n/a | U |
| Schmulewitz, L 2005 | EU | 938 | 2306 | Gen | Sat/Sun | in hospital | N | n/a | N | n/a | n/a | n/a |
| Schneider, EB 2012 | NA | 9937 | 28,738 | TR | Sat/Sun | in hospital | Y | 14 | Y | n/a | n/a | N |
| Shaheen, AA 2009 | NA | 57,270 | 180,142 | GI | Sat/Sun | 7 day all cause mortality; cumulative in hospital | Y | 8 | Y | M | Y | M |
| Sheu, CC 2007 | AS | 140 | 471 | ICU | Sat/Sun | in hospital | N | n/a | N | n/a | n/a | U |
| Tung, YC 2009 | AS | 8055 | 26,292 | NR | Sat/Sun | 7, 30 d all cause mortality | Y | 22 | Y | n/a | n/a | U |
| Turin, TC 2008 | AS | U | U | NR | Sat/Sun | 7, 28 day all cause mortality | M | 53 | U | n/a | n/a | n/a |
| Uusaro, A 2003 | EU | 4677 | 18,457 | ICU | Fri 16:00-Sun midnt | in hospital | M | 20 | N | n/a | n/a | U |
| Worni, M 2012 | NA | 38,317 | 113,457 | Surg | Sat/Sun | in hospital | N | n/a | Y | n/a | n/a | N |
| Worni, M 2012 | NA | 7066 | 24,766 | Surg | Sat/Sun | in hospital | N | n/a | Y | n/a | n/a | N |
| Wujtewicz, MA 2011 | EU | 417 | 1372 | ICU | Fri 19:00-Mon 6:59 | in hospital | N | n/a | U | n/a | n/a | Y |
| Wunsch, H 2004 | EU | 11,345 | 44,905 | ICU | Sat 8:00-Mon 7:59 | in hospital | N | n/a | Y | n/a | n/a | U |
| Youn, YH 2012 | AS | 62 | 326 | GI | Sat/Sun | not defined | N | n/a | N | n/a | N | N |

AS: Asia, CV: Cardiovascular, d: days; EU: Europe, Fri: Friday, Gen: General medical/surgical, GI: Gastrointestinal, hr: hour, ICU: Intensive Care Unit, M: mixed; Med: Medical, midnt: midnight, Mon: Monday, N: no, NA: North America, n/a: not available, NR: Neurological, OR: Orthopedic, Th: Thursday, TR: Trauma, SA: South America, Sat: Saturday, Sun: Sunday, Surg: Surgical, U: undefined, Y: yes, yr: year

Positive weekend effect = main study result showed a statistically significant higher mortality for patients admitted on/cared for during the weekend (vs. those during the week).

Negative weekend effect = main study result showed a no difference in mortality for patients admitted on/cared for during the weekend (vs. those during the week).

Mixed weekend effect = = the study investigated several procedures - some procedures had a statistically significant higher mortality for patients admitted on/cared for during the weekend (vs. those during the week) while other procedures did not.

**Supplementary Table 2: Newcastle-Ottawa Quality Assessment Scale**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author & Year** | **Represen-tativeness of the exposed cohort** | **Selection of the non exposed cohort** | **Ascertain-****ment of exposure** | **Demonstration that outcome of interest was not present at start of study** | **Comparability of cohorts on the basis of the design or analysis** | **Assess-****ment of outcome** | **Was follow-up long enough for outcomes to occur** | **Adequacy of follow up of cohorts** | **Total score** |
| Helsinki Group 2012 | + | + | + | + | + | 0 | 0 | 0 | 5 |
| Albright, KC 2009 | 0 | 0 | 0 | + | 0 | + | + | 0 | 3 |
| Albright, KC 2012 | 0 | 0 | + | + | + | 0 | + | 0 | 4 |
| Al-Lawati, JA 2012 | + | + | + | + | 0 | 0 | + | 0 | 5 |
| Ananthakrishnan, AN 2009 | + | + | 0 | + | + | 0 | + | 0 | 5 |
| Arabi, Y 2006 | + | 0 | + | + | + | 0 | + | 0 | 5 |
| Arbabi, S 2005 | 0 | 0 | + | + | + | 0 | + | 0 | 4 |
| Arias, Y 2004 | 0 | 0 | + | + | + | 0 | + | 0 | 4 |
| Aujesky, D 2009 | + | + | 0 | + | + | + | + | 0 | 6 |
| Aylin, P 2010 | + | + | 0 | 0 | + | 0 | + | 0 | 4 |
| Barba, R 2006 | + | + | + | + | + | 0 | + | 0 | 6 |
| Barba, R 2012 | + | + | + | + | + | 0 | + | 0 | 6 |
| Barnett, MJ 2002 | + | + | + | + | + | 0 | + | 0 | 6 |
| Becker, DJ 2007 | + | + | 0 | + | + | + | + | 0 | 6 |
| Bejanyan, N 2010 | 0 | + | + | + | 0 | + | + | 0 | 5 |
| Bell, CM 2001 | + | + | + | + | + | 0 | + | 0 | 6 |
| Bhonagiri, D 2011 | + | + | + | + | + | 0 | + | 0 | 6 |
| Busse, JW 2004 | + | + | + | + | + | 0 | + | 0 | 6 |
| Button, LA 2011 | + | + | 0 | + | + | + | + | 0 | 6 |
| Carmody, IC 2002 | + | + | 0 | + | 0 | 0 | 0 | 0 | 3 |
| Carr, BG 2010 | + | + | + | + | + | 0 | 0 | 0 | 5 |
| Carr, BG 2011 | + | + | + | + | + | + | + | 0 | 7 |
| Chang, GM 2011 | + | + | 0 | 0 | + | + | + | 0 | 5 |
| Clark, K 2012 | 0 | 0 | + | + | 0 | 0 | 0 | 0 | 2 |
| Clark, K 2007 | 0 | 0 | 0 | + | + | 0 | 0 | 0 | 2 |
| Clarke, MS 2010 | + | + | 0 | + | + | 0 | + | 0 | 5 |
| Cram, P 2004 | + | + | 0 | + | + | 0 | 0 | 0 | 4 |
| Crowley, RW 2009 (J Neurosurg) | + | + | 0 | + | + | 0 | + | 0 | 5 |
| Crowley, RW 2009 Stroke | + | + | 0 | + | + | 0 | + | 0 | 5 |
| Daugaard, CL 2012 | + | + | + | + | + | + | + | 0 | 7 |
| Dasenbrock, HH 2012 | + | + | 0 | + | + | 0 | + | 0 | 5 |
| de Groot, NL 2012 | 0 | 0 | + | + | + | 0 | + | 0 | 4 |
| Deshmukh, A 2012 | + | + | 0 | 0 | + | 0 | + | 0 | 4 |
| Dorn, SD 2010 | + | + | 0 | + | + | 0 | + | 0 | 5 |
| Ensminger, SA 2004 | + | + | 0 | + | + | + | + | 0 | 6 |
| Evangelista, PA 2008 | + | + | 0 | 0 | + | 0 | + | 0 | 4 |
| Fang, J 2010 | + | + | + | + | + | 0 | + | 0 | 6 |
| Fonarow, GC 2008 | + | + | + | + | + | 0 | + | 0 | 5 |
| Foss, NB 2006 | + | + | + | + | + | + | + | 0 | 7 |
| Fredriksson, M 2010 | + | + | + | + | + | + | + | 0 | 7 |
| Freemantle, N 2012 | + | + | + | + | + | + | + | 0 | 7 |
| Gaies, MG 2012 | + | 0 | + | + | + | + | 0 | 0 | 5 |
| Gallerani, M 2012 | + | + | + | + | + | 0 | + | 0 | 6 |
| Gordon, HS 2005 | 0 | 0 | + | + | + | + | + | 0 | 5 |
| Handel, A 2012 | + | + | + | + | + | + | 0 | 0 | 6 |
| Hansen, KW 2012 | + | + | + | + | + | + | + | 0 | 7 |
| Hasegawa, Y 2005 | 0 | 0 | + | + | + | 0 | 0 | 0 | 3 |
| Hixson, ED 2005 | 0 | 0 | + | + | + | 0 | 0 | 0 | 3 |
| Hoh, BL 2010 | + | + | 0 | + | + | 0 | + | 0 | 5 |
| Hong, JS 2010 | + | + | 0 | + | + | 0 | + | 0 | 5 |
| Horwich, TB 2009 | + | + | + | + | + | 0 | + | 0 | 6 |
| Jairath, V 2011 | 0 | 0 | + | + | + | + | 0 | 0 | 4 |
| James, MT 2010 | + | 0 | 0 | 0 | + | 0 | 0 | 0 | 2 |
| Jauss, M 2010 | + | + | 0 | + | + | 0 | + | 0 | 5 |
| Jiang, F 2011 | 0 | 0 | 0 | 0 | + | 0 | + | 0 | 2 |
| Jneid, H 2008 | + | + | + | + | + | + | + | 0 | 7 |
| Kazley, AS 2010 | + | + | 0 | + | + | 0 | + | 0 | 5 |
| Kim, SC 2012 | 0 | 0 | + | + | + | 0 | + | 0 | 4 |
| Koike, S 2012 | + | + | + | + | + | 0 | + | 0 | 6 |
| Kostis, WJ 2007 | + | + | 0 | 0 | + | 0 | + | 0 | 4 |
| Krüth, P 2008 | + | + | + | + | 0 | 0 | + | 0 | 5 |
| Kuukasjärvi, P 2000 | + | + | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Lairez, O 2009 | 0 | 0 | + | + | + | 0 | + | + | 6 |
| Laupland, KB 2008 | + | + | + | + | + | 0 | + | 0 | 6 |
| Laupland, KB 2010 | 0 | 0 | + | + | + | + | + | 0 | 6 |
| Laupland, KB 2012 | + | + | + | 0 | + | 0 | 0 | 0 | 4 |
| Laupland, KB 2011 | 0 | 0 | + | + | + | 0 | + | 0 | 4 |
| Lee, KK 2008 | 0 | 0 | + | + | 0 | 0 | + | 0 | 3 |
| Madej-Fermo, OP 2012 | 0 | 0 | + | + | + | 0 | + | 0 | 4 |
| Manfredini, R 2009 | + | + | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Marco, J 2010 | + | + | 0 | + | + | 0 | 0 | 0 | 4 |
| Matsui, K 2007 | + | + | + | + | 0 | 0 | + | 0 | 5 |
| McKinney, JS 2011 | + | + | 0 | 0 | + | 0 | + | 0 | 4 |
| Mikulich, O 2011 | + | + | + | + | + | 0 | + | 0 | 6 |
| Myers, RP 2009 | + | + | 0 | + | + | 0 | 0 | 0 | 4 |
| Nanchal, R 2012 | + | + | 0 | 0 | + | 0 | + | 0 | 4 |
| Niewada, M 2012 | 0 | 0 | + | + | 0 | + | + | 0 | 4 |
| Obel, N 2007 | + | + | 0 | + | + | 0 | + | 0 | 5 |
| Ogbu, UC 2011 | + | + | 0 | + | + | + | + | 0 | 6 |
| Orman, ES 2012 | + | + | + | + | + | 0 | + | 0 | 6 |
| Palmer, WL 2012 | + | + | + | + | + | 0 | + | 0 | 6 |
| Ricciardi, R 2011 | + | + | 0 | + | + | 0 | + | 0 | 5 |
| Ryan, JW 2005 | + | + | + | + | + | 0 | + | 0 | 6 |
| Saposnik, G 2007 | + | + | 0 | + | + | 0 | + | 0 | 5 |
| Schilling, PL 2010 | + | + | 0 | 0 | + | 0 | 0 | 0 | 3 |
| Schmulewitz, L 2005 |  |  |  |  |  |  |  |  |  |
| Schneider, EB 2012 | + | 0 | 0 | 0 | + | 0 | + | 0 | 3 |
| Shaheen, AA 2009 | + | + | 0 | + | + | 0 | + | 0 | 5 |
| Sheu, CC 2007 | 0 | 0 | 0 | 0 | + | 0 | + | 0 | 2 |
| Tung, YC 2009 | + | + | 0 | 0 | + | + | + | 0 | 5 |
| Turin, TC 2008 | + | + | + | + | 0 | 0 | + | 0 | 5 |
| Uusaro, A 2003 | + | + | + | + | + | 0 | + | 0 | 6 |
| Worni, M 2012 (Archives) | + | + | 0 | + | + | 0 | + | 0 | 5 |
| Worni, M 2012 (World) | + | + | 0 | 0 | + | 0 | + | 0 | 4 |
| Wujtewicz, MA 2011 | + | 0 | + | + | + | + | 0 | 0 | 5 |
| Wunsch, H 2004 | + | + | + | + | + | 0 | + | 0 | 6 |
| Youn, YH 2012 | 0 | 0 | + | + | + | 0 | 0 | 0 | 3 |

+: present

-: absent

**Appendix: Search parameters**

PubMed: Date Searched: April 4, 2013

Number of Results: 256

Hospital Patients

"Inpatients"[Mesh] OR "Adolescent, Hospitalized"[Mesh] OR "Child, Hospitalized"[Mesh] OR "hospital patient"[tiab] OR "aged hospital patient"[tiab] OR "hospitalized adolescent"[tiab] OR "hospitalized child"[tiab] OR "hospitalized infant"[tiab] OR (("hospital"[tiab] OR"hospitalised"[tiab] OR "hospitalized"[tiab] OR "hospitalisation"[tiab] OR "hospitalization"[tiab] OR "admission"[tiab] OR "admitted"[tiab] OR "in-hospital"[tiab]) AND ("in-patient"[tiab] OR "in-patients"[tiab] OR "inpatient"[tiab] OR "inpatients"[tiab] OR "patient"[tiab] OR "patients"[tiab]))

Days of the Week:

"Day of the week" OR "days of the week" OR "weekday" OR "weekdays" OR "weekend" OR "weekends" OR "Sunday" OR "Monday" OR "Tuesday" OR "Wednesday" OR "Thursday" OR "Friday" OR "Saturday" OR "Sundays" OR "Mondays" OR "Tuesdays" OR "Wednesdays" OR "Thursdays" OR "Fridays" OR "Saturdays"

Complications/Costs/Mortality

"Costs and Cost Analysis"[Mesh] OR "Cross Infection"[Mesh] OR "Drug Toxicity"[Mesh] OR "Fatal Outcome"[Mesh] OR "Intraoperative Complications"[Mesh] OR "mortality"[Subheading] OR "Mortality"[Mesh] OR "Obstetric Labor Complications"[Mesh] OR "Outcome and Process Assessment (Health Care)"[Mesh] OR "Outcome Assessment (Health Care)"[Mesh] OR "Postoperative Complications"[Mesh] OR "Pregnancy Complications, Infectious"[Mesh] OR "Pregnancy Outcome"[Mesh] OR "Survival Analysis"[Mesh] OR "Survival"[Mesh] OR "Treatment Outcome"[Mesh] OR "complications"[Subheading] OR "poisoning"[Subheading] OR "Adverse Drug Event"[tiab] OR "Adverse Drug Reaction"[tiab] OR "adverse event"[tiab] OR "adverse events"[tiab] OR "allocation"[tiab] OR "complication"[tiab] OR "complications"[tiab] OR "cost"[tiab] OR "costs"[tiab] OR "Cross Infection"[tiab] OR "Cross infections"[tiab] OR "dead"[tiab] OR "death"[tiab] OR "deaths"[tiab] OR "drug interaction"[tiab] OR "drug interactions"[tiab] OR "drug reaction"[tiab] OR "drug reactions"[tiab] OR "drug-induced"[tiab] OR "drug-related"[tiab] OR "fees"[tiab] OR "Hospital infection"[tiab] OR "Hospital Infections"[tiab] OR "mortality"[tiab] OR "Nosocomial Infection"[tiab] OR "Nosocomial Infections"[tiab] OR "passed away"[tiab] OR "ration"[tiab] OR "rationed"[tiab] OR "rationing"[tiab] OR "rations"[tiab] OR "survival"[tiab] OR "toxicity"[tiab] OR "fatality"[tiab] OR "outcome"[tiab] OR "outcomes"[tiab]

Article Types:

((clinical[Title/Abstract] AND trial[Title/Abstract]) OR clinical trials[MeSH Terms] OR clinical trial[Publication Type] OR random\*[Title/Abstract] OR random allocation[MeSH Terms] OR therapeutic use[MeSH Subheading]) OR "systematic review" OR "Review" [Publication Type] OR "Review Literature as Topic"[Mesh] OR "literature review" OR "Meta-Analysis" [Publication Type] OR "Meta-Analysis as Topic"[Mesh] OR "meta-analysis" OR "meta analysis"

EMBASE: Date Searched: April 4, 2013

Number of Results: 126

Hospital Patients:

'hospital patient'/exp OR 'aged hospital patient'/exp OR 'hospitalized adolescent'/exp OR 'hospitalized child'/exp OR 'hospitalized infant'/exp OR (("hospital":ab,ti OR "hospitalised":ab,ti OR "hospitalized":ab,ti OR "hospitalisation":ab,ti OR "hospitalization":ab,ti OR "admission":ab,ti OR "admitted":ab,ti OR "in-hospital":ab,ti ) AND ("in-patient":ab,ti OR "in-patients":ab,ti OR "inpatient":ab,ti OR "inpatients":ab,ti OR "patient":ab,ti OR "patients":ab,ti ))

Days of the Week:

"Day of the week" OR "days of the week" OR "weekday" OR "weekdays" OR "weekend" OR "weekends" OR "Sunday" OR "Monday" OR "Tuesday" OR "Wednesday" OR "Thursday" OR "Friday" OR "Saturday" OR "Sundays" OR "Mondays" OR "Tuesdays" OR "Wednesdays" OR "Thursdays" OR "Fridays" OR "Saturdays"

Complications/Outcomes:

'cost'/de OR 'hospital cost'/exp OR 'cross infection'/exp OR 'drug toxicity'/exp OR 'fatality'/exp OR 'mortality'/exp OR 'peroperative complication'/exp OR 'labor complication'/exp OR 'pregnancy complication'/exp OR 'pregnancy outcome'/exp OR 'survival'/exp OR 'treatment outcome'/exp OR "Adverse Drug Event":ab,ti OR "Adverse Drug Reaction":ab,ti OR "adverse event":ab,ti OR "adverse events":ab,ti OR "allocation":ab,ti OR "complication":ab,ti OR "complications":ab,ti OR "cost":ab,ti OR "costs":ab,ti OR "Cross Infection":ab,ti OR "Cross infections":ab,ti OR "dead":ab,ti OR "death":ab,ti OR "deaths":ab,ti OR "drug interaction":ab,ti OR "drug interactions":ab,ti OR "drug reaction":ab,ti OR "drug reactions":ab,ti OR "drug-induced":ab,ti OR "drug-related":ab,ti OR "fees":ab,ti OR "Hospital infection":ab,ti OR "Hospital Infections":ab,ti OR "mortality":ab,ti OR "Nosocomial Infection":ab,ti OR "Nosocomial Infections":ab,ti OR "passed away":ab,ti OR "ration":ab,ti OR "rationed":ab,ti OR "rationing":ab,ti OR "rations":ab,ti OR "survival":ab,ti OR "toxicity":ab,ti OR "fatality":ab,ti OR "outcome":ab,ti OR "outcomes":ab,ti

Publication Types

('randomized controlled trial'/exp OR 'controlled clinical trial'/exp OR 'systematic review'/exp OR 'randomized':ab,ti OR 'randomly':ab,ti OR 'placebo':ab,ti OR 'systematic review':ab,ti OR 'meta analysis'/exp OR 'meta analysis (topic)'/exp OR "meta analysis":ab,ti)

SCOPUS: (limit to title/abstract): Date Searched: April 4, 2013

Number of Results: 345

Hospital Patients

((hospitalised OR hospitalized OR hospitalization OR hospitalization OR admission OR admitted OR in-hospital OR hospital) AND (in-patient OR in-patients OR inpatient OR inpatients OR patient OR patients))

Days of the Week: (limit to title/abstract)

"Day of the week" OR "days of the week" OR "weekday" OR "weekdays" OR "weekend" OR "weekends" OR "Sunday" OR "Monday" OR "Tuesday" OR "Wednesday" OR "Thursday" OR "Friday" OR "Saturday" OR "Sundays" OR "Mondays" OR "Tuesdays" OR "Wednesdays" OR "Thursdays" OR "Fridays" OR "Saturdays"

Complications:

"Adverse Drug Event" OR "Adverse Drug Reaction" OR "adverse event" OR "adverse events" OR "allocation" OR "complication" OR "complications" OR "cost" OR "costs" OR "Cross Infection" OR "Cross infections" OR "dead" OR "death" OR "deaths" OR "drug interaction" OR "drug interactions" OR "drug reaction" OR "drug reactions" OR "drug-induced" OR "drug-related" OR "fees" OR "Hospital infection" OR "Hospital Infections" OR "mortality" OR "Nosocomial Infection" OR "Nosocomial Infections" OR "passed away" OR "ration" OR "rationed" OR "rationing" OR "rations" OR "survival" OR "toxicity" "fatality" OR "outcome" OR "outcomes"

Article Type:

(("clinical" OR "controlled") AND ("trial" OR "trials")) OR "randomized" OR "random" OR "randomly" OR "randomization" OR "systematic review" OR "meta analysis"

Cochrane Search: Date Run: April 8, 2013

Number of Results: 62

ID Search

#1 MeSH descriptor: [Inpatients] explode all trees

#2 MeSH descriptor: [Adolescent, Hospitalized] explode all trees

#3 MeSH descriptor: [Child, Hospitalized] explode all trees

#4 ((hospitalised:ti,ab,kw or hospitalized:ti,ab,kw or hospitalization:ti,ab,kw or

 hospitalization:ti,ab,kw or admission:ti,ab,kw or admitted:ti,ab,kw or

 in-hospital:ti,ab,kw or hospital:ti,ab,kw) and (in-patient:ti,ab,kw or

 in-patients:ti,ab,kw or inpatient:ti,ab,kw or inpatients:ti,ab,kw or patient:ti,ab,kw

 or patients:ti,ab,kw))

#5 #1 or #2 or #3 or #4

#6 "Day of the week":ti,ab,kw or "days of the week":ti,ab,kw or "weekday":ti,ab,kw or

 "weekdays":ti,ab,kw or "weekend":ti,ab,kw or "weekends":ti,ab,kw or "Sunday":ti,ab,kw or

 "Monday":ti,ab,kw or "Tuesday":ti,ab,kw or "Wednesday":ti,ab,kw or "Thursday":ti,ab,kw or

 "Friday":ti,ab,kw or "Saturday":ti,ab,kw or "Sundays":ti,ab,kw or "Mondays":ti,ab,kw or

 "Tuesdays":ti,ab,kw or "Wednesdays":ti,ab,kw or "Thursdays":ti,ab,kw or "Fridays":ti,ab,kw

 or "Saturdays":ti,ab,kw

#7 MeSH descriptor: [Costs and Cost Analysis] explode all trees

#8 MeSH descriptor: [Cross Infection] explode all trees

#9 MeSH descriptor: [Drug Toxicity] explode all trees

#10 MeSH descriptor: [Fatal Outcome] explode all trees

#11 MeSH descriptor: [Intraoperative Complications] explode all trees

#12 MeSH descriptor: [Mortality] explode all trees

#13 MeSH descriptor: [Obstetric Labor Complications] explode all trees

#14 MeSH descriptor: [Outcome and Process Assessment (Health Care)] explode all trees

#15 MeSH descriptor: [Outcome Assessment (Health Care)] explode all trees

#16 MeSH descriptor: [Postoperative Complications] explode all trees

#17 MeSH descriptor: [Pregnancy Complications, Infectious] explode all trees

#18 MeSH descriptor: [Pregnancy Outcome] explode all trees

#19 MeSH descriptor: [Survival Analysis] explode all trees

#20 MeSH descriptor: [Survival] explode all trees

#21 MeSH descriptor: [Treatment Outcome] explode all trees

#22 "Adverse Drug Event":ti,ab,kw or "Adverse Drug Reaction":ti,ab,kw or

 "adverse event":ti,ab,kw or "adverse events":ti,ab,kw or "allocation":ti,ab,kw or

 "complication":ti,ab,kw or "complications":ti,ab,kw or "cost":ti,ab,kw or

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 "Hospital infection":ti,ab,kw or "Hospital Infections":ti,ab,kw or "mortality":ti,ab,kw or

"Nosocomial Infection":ti,ab,kw or "Nosocomial Infections":ti,ab,kw or "passed way":ti,ab,kw or "ration":ti,ab,kw or "rationed":ti,ab,kw or "rationing":ti,ab,kw or "rations":ti,ab,kw or "survival":ti,ab,kw or "toxicity":ti,ab,kw or "fatality":ti,ab,kw or "outcome":ti,ab,kw or "outcomes":ti,ab,kw

#23 #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or

 #20 or #21 or #22

#24 #5 and #6 and #23

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