Appendix Table C1c. Study characteristics for SSI which control for secular trend or confounding

| **Study** | **Study Design** | **Infection** | **Healthcare Setting** | **Clinical Setting** | **Intervention Years** | **Follow-up (months)** | **Comment** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Burkitt, United States - 2009 | Simple before-after | SSI | one surgical unit in one Veterans Affairs hospital | Operating Room pharmacy | 2001 - 2004 | 12 | Only adherence rates reported, no SSI. Interventions were rolled out over the course of several yrs. 2000 is a pre-period for all interventions. In 2001-2002, an intervention to reduce MRSA was initiated. In 2002-2003, this evolved into an intervention to improve antibiotic administration. SSI rates are presented for all yrs, comparing all yrs data, but with special analysis performed comparing 2004 data to the previous yrs since 2004 was the 1st yr after all interventions were implemented. |
| Hedrick, United States - 2007 | Simple before-after | SSI | Tertiary care or university hospital | Operating Room, Surgical Intensive Care Unit | 2004 - 2005 | 10 | Many interventions were rolled out at different times during the course of the study period, some implemented while the pre-data was being collected. Because of this overlap, the effect of the intervention may be underestimated. SSI defined according to Surgical Wound Infection Task Force guidelines, which is a modification of the CDC criteria. |
| Kaimal, United States - 2008 | Simple before-after | SSI | Tertiary care or university hospital | Operating Room | 2006 - 2007 | 12 | Uncertain how SSI defined.; 1 Institution, 1316 term C-Sections. They define the pre-period from Jan03-Mar05 and that is the baseline. There is an in-between period, from Mar05-Jun06, when they tried several interventions that they say did not work, so they tried a new intervention beginning in Jun06. The post-period is Jun06-Jun07 and they compare this period of time to the baseline, Jan03-Mar05 |
| Kao, United States - 2010 | Stepped wedge (non-randomized) | SSI | Tertiary care or university hospital | Operating Room Pre-op area | 2007 - 2009 | 14 | The study design was a modified step-wedge design which they called a staggered cohort design. One hospital received the intervention at the beginning, and then 6 months later, the second hospital received the intervention. Hospital 1 had 14 months of follow-up and hospital 2 had 6 months of follow-up. Uncertain how SSI were defined. |
| Kritchevsky, United States - 2008 | RCT – Location | SSI | More than one hospital of different types | Operating Room varied among intervention hospitals | 2003 - 2005 | 18 | No SSI rates reported, only adherence rates.; 44 Acute Care Hospitals |
| Mannien, Netherlands - 2006 | Interrupted time series | SSI | More than one hospital of different types | Operating Room | 2001 - 2002 | 11 | Follow-up time varied for different hospitals, 6-11 mos. Pre-intervention period from January 2000 to November 2001; CDC definition was used |
| Trussell, United States - 2008 |  Simple before-after | SSI | Tertiary care or university hospital | Operating Room, Surgical Intensive Care Unit Pre-op area | - |   | The study took place in a 39-month period, with the intervention implemented “in the middle”. No dates were given. SSI determined using NNIS definition. |

\*Articles by Zanetti et al. (2003), Gastmeier et al. (2002), Greco et al. (1991), Dellinger et al. (1991) were from the 2007 Report (*Closing the Quality Gap: A Critical Analysis of Quality Improvement Strategies: Volume 6—Prevention of Healthcare-Associated Infections)* and were included only in the tables within the comparative effectiveness review. For further information on these studies please refer to the 2007 report