Appendix Table C5b(1). Adherence outcomes for VAP which control for secular trend or confounding

| **Study** | **Infection** | **Intervention(s)** | **Pre-intervention Adherence rate** | **Post-Intervention Adherence Rate** | **Adherence Rate Statistical Analysis** | **Follow-up (months)** |
| --- | --- | --- | --- | --- | --- | --- |
| Apisarnthanarak, Thailand - 2007 | VAP | Educational Program | HOB elevation: 45%; Mean percentage of correct answers: 78.5% | post1 HOB elevation: 80%; post2 HOB elevation: 84%; Mean percentage of correct answers: 90.8% | post1 Chi-square: p<0.05; post2 Chi-square: p<0.05; mean percentage Chi-square: p<0.001 | 36 |
| Berenholtz, United States - 2011 | VAP | VAP Bundle and Daily Goal Sheets | composite: 32% | post1 composite: 75%; post2 composite: 84% | Pearson Chi-square post1 vs baseline and post2 vs baseline: p<0.001 | 30 |
| Bouadma, France - 2010 | VAP | Multifaceted Prevention Program | hand hygiene: 68%; glove and gown use: 80%; HOB elevation: 5%; oral care: 47% | hand hygiene: 67%; glove and gown use: 82%; HOB elevation: 58%; oral care: 90% | hand hygiene p=0.70; glove and gown use p=0.80; HOB elevation p<0.0001; oral care p< 0.0001 | 24 |
| DePalo, United States - 2010 | CLABSI;VAP | CLABSI Education Program and Bundle | Complete Bundle VAP: 60% | Complete Bundle VAP: 78% | p=<0.0001 | 27 |
| Dubose, United States - 2010 | VAP | Quality Rounds Checklist (QRC) | HOB: 35.2%; peptic ulcer prophylaxis: 76.2%; thrombolytic prophylaxis: 91.4%; sedation holiday: 77.8% | HOB: 93.2%; peptic ulcer prophylaxis: 90.4%; thrombolytic prophylaxis: 93.5%; sedation holiday: 94.0% |   | 12 |
| Hawe, United Kingdom - 2009 | VAP | Active Implementation |   | post1 full compliance: 0%; post2 full compliance: 48%; post3 full compliance: 54% | p<0.0001 | 10 |
| Kulvatunyou, Thailand - 2007 | VAP | Educational Program |   |   |   |   |
| Marra, Brazil - 2009 | VAP | VAP Bundle |   | Phase 1 HOB Elevation: 74.1%; Phase 2 HOB Elevation: 89.5%; Phase 3 HOB Elevation: 96.8%; Phase 3 Daily sedation vacation: 98.9%; Phase 3 oral care: 100% |   |   |
|  |  |  |  |  |  |  |
| Omrane, Canada - 2007 | VAP | VAP Prevention Protocol |   |   |   |   |
| Papadimos, United States - 2008 | VAP | FASTHUG protocol |   |   |   |   |
| Prospero, Italy - 2008 | VAP | Educational Program |   |   |   |   |
| Scales, Canada - 2011 | CLABSI;VAP | Bundle - CLABSI, VAP | intervention HOB elevation: 50.2%; intervention CLABSI bundle: 10%; intervention daily spontaneous breathing trial: 78.8%; control HOB elevation: 80.1%; control CLABSI bundle: 31%; control daily spontaneous breathing trial: 90.9% | intervention HOB elevation: 89.6%; intervention CLABSI bundle: 70.6%; intervention daily spontaneous breathing trial: 85.1%; control HOB elevation: 90.2%; control CLABSI bundle: 51.7%; control daily spontaneous breathing trial: 89% | Ratio of random effects ORs (active OR/control OR) for: HOB elevation: 3.12 (95% CI .79-12.41); CLABSI bundle: 17.55 (95% CI 4.72-65.26);daily spontaneous breathing trials: 1.04 (95% CI 0.21-5.03); overall: 2.79 (95% CI 1.00-7.74, p=0.049) | 4-12 |
| Zaydfudim, United States - 2009 | VAP | VAP Electronic Dashboard |   | post1: 39%; post2: 89% | linear regression, p<0.001 | 12 |