Appendix Table C5a-LQ(2). Infection rate outcomes for CLABSI which do not control for secular trend or confounding

| **Study** | **Infection** | **Intervention(s)** | **Pre-intervention infection rate** | **Post-Intervention Infection Rate** | **Infection Rate Statistical Analysis** | **Unit of Measure** | **Follow-up (months)** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Assanasen, - 2008 | CLABSI;VAP | Feedback Program |  |  |  |  |  |
| Berriel-Cass, United States - 2006 | CLABSI;VAP | CLABSI Bundle | mean: 9.6 | mean: 3.0 | t-test: p=0.003 | infections/1000 device-days |  |
| Bhutta, United States - 2007 | CLABSI | Bundle CLABSI | 8.6 | 3 | RR reduction of 75% no stat test mentioned; Incidence of BSI decreased no stat test mentioned (p<0.001; 95% CI: 35% to 126%) | infections/1000 device-days |  |
| Bizzarro, United States - 2010 | CLABSI | Bundle - CLABSI | 8.44 (95% CI: 6.80-10.46) | 1.71 (95% CI: 0.77-3.80) |  | infections/1000 device-days |  |
| Galpern, United States - 2008 | CLABSI | CLABSI Bundle | 5.0 | 0.90 | Statistical test not specified: p<0.001 | infections/1000 device-days |  |
| Guerin, United States - 2010 | CLABSI | Post-insertion CVC care bundle | 5.7 | 1.1 | RR type of model not specified: 0.19 (95% CI: 0.06-0.63, p=0.004) | infections/1000 device-days |  |
| Gurskis, Lithuania - 2009 | CAUTI, CLABSI, VAP | CLABSI Education | 9.3 | 2.7 | p>0.05 | number of CLABSIs per 1,000 device days | 12 |
| Jain, United States - 2006 | CAUTI; CLABSI; VAP | IMPACT initiative | CLABSI: 5.9; CAUTI: 3.8; VAP: 7.5 | CLABSI: 3.1; CAUTI: 2.4; VAP: 3.2 | CLABSI χ2: p=0.03; CAUTI χ2: p=0.17; VAP χ2: p=0.04 | infections/1000 device-days |  |
| Jeffries, United States - 2009 | CLABSI | CVC Insertion and Maintenance Bundle | median: 6.3 (IQR 5.0-8.9) | median: 4.3 (IQR 2.6-7.6) | Wilcoxon rank sum test: p = .032 | infections/1000 device-days |  |
| Koll, United States - 2008 | CLABSI | Central line bundle | mean CLABSI rate: 4.85 | mean CLABSI rate: 2.24 | statistical test not specified: p<0.001 | infections/1000 device-days |  |
| Lobo, Brazil - 2010 | CLABSI | Continuous Education | 12 | post1: 10.6; post2: 0 | χ2/Fishers exact comparing pre-intervention and intervention period: P=.03 | infections/1000 device-days |  |
| Lobo, Brazil - 2010 | CLABSI | Single lecture | 16.2 | post1: 12.9; post2: 13.7 | χ2/Fishers exact comparing pre-intervention and intervention period: p=0.41 | infections/1000 device-days |  |
| Marra, Brazil - 2010 | CLABSI | IHI Bundle - CLABSI | mean ICU: 6.4 (2.9 SD); mean SDU 4.1 (3.3 SD) | mean ICU: 3.2 (2.5 SD); mean SDU 1.6 (2.4 SD) | ICU Student t-test: p<0.001; SDU Student t-test: p=0.005 | infections/1000 device-days |  |
| Render, United States - 2006 | CLABSI | CLABSI bundle | 1.7 | 0.4 | t-test: p<0.05 | infections/1000 device-days |  |
| Rogers, Ireland - 2010 | CLABSI; VAP | Plan-Do-Study-Act (PDSA)cycle | overall CLABSI: 25.3; infants < 1000g CLABSI: 28.2; infants between 1001-1500g CLABSI: 17.8; overall VAP: 9.8; infants < 1000g VAP: 10.0; infants between 1001-1500g VAP: 8.3 | overall CLABSI: 19.3; infants < 1000g CLABSI: 21.5; infants between 1001-1500g CLABSI: 12.5; overall VAP rate: 6.1; infants < 1000g VAP: 6.7; infants between 1001-1500g VAP: 0 | Infants <1000g CLABSI, RR: 0.76, 95% CI:(0.43–1.25) p=0.28; RR for CLABSI infants between 1001-1500g: 0.70 (95% CI 0.14-2.07, p=0.58); RR for VAP all infants: 0.63 (95% CI 0.20-1.47), p=0.30 | Infection/1000 device-days |  |
| Sannoh, United States - 2010 | CLABSI | Bundle - CLABSI | UVC: 7/1000; Brovac: 15/1000; PICC : 23/1000; UAC+UVC : 15/1000 | UVC: 4/1000; Brovac: 10/1000; PICC : 12/1000; UAC+UVC : 5/1000 | UVC OR=0.57 (95% CI 0.17-1.95); Brovac OR=0.60 (95% CI 0.26-1.40); PICC OR=0.47 (95% CI 0.17-0.91) ; UAC+UVC OR=0.33 (95% CI 0.12-0.91) | infections/1000 device-days |  |
| Santana, Brazil - 2008 | CLABSI | Education | mean: 9.5 | mean: 5.4 | OR 0.46 (95% CI 0.21-1.02); Fisher exact test, p=0.04 | infections/1000 device-days |  |
| Shannon, United States - 2006 | CLABSI | Toyota Production System adaptation | 10.5 | post1: 1.2; post2: 1.6; post3: 0.39 | all Chi-square/Fisher’s exact test: p<0.05 | infections/1000 device-days |  |
| Venkatram, United States - 2010 | CAUTI; CLABSI; VAP | CLABSI bundle | 10.77 | 1.04 | Unadjusted IRR specific stat for p value not specified: 0.155, 95% CI 0.13-0.18 (p<0.0001); IRR adjusted for device utilization specific stat for p value not specified: 0.09, 95% CI 0.09-0.23 (p<0.0001) | infections/1000 device-days |  |
| Warren, United States - 2006 | CLABSI | Multifaceted, education-based intervention | overall: 11.2 | overall: 8.9 | χ2 relative rate(95% CI): 0.79 (0.67-0.93) | infections/1000 device-days |  |
| Wicker, United States - 2011 | CLABSI | Comprehensive Infection Control Measures | late onset CLABSI: 30.8%; general BSI: 37.7% | late onset CLABSI: 19.4%; general BSI: 22.7% | CLABSI: p=.001; general BSI: p<.001 | % late onset central line associated BSI of all central line infants |  |
| Yilmaz, Turkey - 2007 | CLABSI | Education | 8.3 | 4.7 | Chi-square p=0.018; relative risk of 0.57 (95% CI: 0.36-0.92) | infections/1000 device-days |  |