**Supplementary online table 1.** Baseline characteristics

|  |  |  |  |
| --- | --- | --- | --- |
| **Variables** | **CARE (n=433)** | **Control (n=441)** | ***P*-value** |
| Mean age (year), mean±SD | 61.5±18.6 | 61.4±17.9 | 0.93 |
| Female gender  | 284 (65.6%) | 277 (62.8%) | 0.39 |
| Previous hospitalization in 3 months  | 152 (35.1%) | 157 (35.6%) | 0.88 |
| **Transfer status** |  |  |  |
| No | 391 (90.3%) | 398 (90.3%) | 0.96 |
| Hospital | 37 (8.6%) | 37 (8.4%) |
| Long term care facility | 4 (0.9%) | 4 (0.9%) |
| Unknown | 1 (0.2%) | 2 (0.4%) |
| Underlying diseases | 406 (93.8%) | 409 (92.7%) | 0.55 |
| Diabetes mellitus  | 146 (33.7%) | 144 (32.6%) | 0.74 |
| Hypertension  | 236 (54.5%) | 249 (56.5%) | 0.56 |
| Cerebrovascular disease  | 85 (19.6%) | 78 (17.7%) | 0.46 |
| Pulmonary disease  | 54 (12.5%) | 53 (12.0%) | 0.84 |
| Cardiovascular disease  | 117 (27.0%) | 128 (29.0%) | 0.51 |
| Renal disease  | 67 (15.5%) | 54 (12.2%) | 0.17 |
| Liver disease  | 84 (19.4%) | 83 (18.8%) | 0.83 |
| Non-malignant hematologic disease  | 61 (14.1%) | 68 (15.4%) | 0.58 |
| Hematologic malignancy  | 17 (3.9%) | 17 (3.8%) | 0.96 |
| Solid malignancy  | 76 (17.5%) | 67 (15.2%) | 0.35 |
| Post-organ transplantation  | 3 (0.7%) | 11 (2.5%) | 0.03 |
| Neutropenia  | 8 (1.8%) | 12 (2.7%) | 0.39 |
| HIV infection | 10 (2.3%) | 17 (3.8%) | 0.19 |
| Recent use of immunosuppressive agents  | 46 (10.6%) | 49 (11.1%) | 0.82 |
| **Previous catheter use (in the past 90 days)** |  |  |  |
| Nasogastric tube  | 35 (8.1%) | 28 (6.4%) | 0.32 |
| Gastrostomy tube  | 9 (2.1%) | 8 (1.8%) | 0.78 |
| Urinary catheter  | 49 (11.3%) | 50 (11.3%) | 0.61 |
| Central venous catheter  | 12 (2.8%) | 10 (2.3%) | 0.63 |
| Others  | 23 (5.3%) | 20 (4.5%) | 0.60 |

CARE, Catheter Reminder and Evaluation; SD, standard deviation

**Supplementary Figure 1.** Catheter Reminder and Evaluation rubber stamp template.



**Supplementary Figure 2.** Compliance of ward nurses and responsible physicians to the Catheter Reminder and Evaluation program. Appropriate urinary catheter use included 1) removing catheter when it is no longer needed and 2) retaining catheter when an appropriate indication (based on Healthcare Infection Control Practices Advisory Committee guidelines for preventing catheter-associated urinary tract infections 2009) is documented.

