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## **e-Appendix 1: Details of methods and results of the process-of-care assessment**

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### **Measures**

Within 24 hours after enrolment a research assistant completed the Present State Checklist (PSC). The PSC scored 5 items describing the patient's hospital environment (presence of a radio or television, a clock or watch, a calendar and a family member, and absence of physical restraints); higher scores indicated a more favourable environment. The presence of personal possessions at the bedside was also noted. Subsequently, these measures were completed 3 times per day (every other day) during the first week and weekly thereafter until discharge or 8 weeks in hospital.

After discharge (or 8 weeks in hospital) medical records were reviewed by a nurse-abstractor for information to complete a record of medication received in hospital and a process-of-care inventory. Types of dosages of medication before admission plus any subsequent changes during the hospital stay were abstracted from the emergency triage or order sheets respectively. The process-of-care inventory included measures of documented care including geriatric or geriatric psychiatry consultations (number and type of recommendations, compliance with recommendations), and care by attending physicians (documentation of delirium in the progress notes, consultations to occupational therapy, recreational therapy or social work) and ward nurses (documentation of emotional support and orienting).

### **Analysis**

To examine process of care, the proportions of patients with (a) documentation of delirium by attending physicians, (b) decreased medications, (c) at least 1 consultation to occupational therapy, recreational therapy or social work, (d) personal possessions at the bedside and (e) documentation of emotional support or orienting by the nurse were computed and compared between the intervention and usual care groups using the  $\chi^2$  test. The mean of all PSC scores during the hospital stay was computed for each patient, and a *t*-test was used to compare the average PSC score between the 2 groups.

### **Results**

In the intervention group, 110 of 113 patients received the intervention (a mean of 1.4 days after enrolment) as planned. The consultants had a mean of 1.96 contacts (median 1.0, range 1–6) with each patient in the intervention group and made a mean of 6.02 recommendations (median 1.0, range 1–17) per patient, most frequently for medication changes or investigations. The rate of compliance with the recommendations was 73.2% for medication changes, 69% for investigations, and 20.6% for other recommendations (e.g., patient supports, mobilization), recommendations that were more difficult and time consuming to implement and less likely to be documented in the patient's chart. The study nurse had a mean of 11.7 (standard deviation [SD] 9.8) contacts (median 8.0, range 1–39) with each patient, each contact lasting a mean of 35.7 (SD 28.8) minutes (median 30, range 5–240). The mean total time spent with each patient was 418 (SD 282) minutes (median 318, range 90–1315). The 4 most frequent activities during these contacts involved assessment and support of patients, and education and support of nursing staff and families. In the control group, 21 of 114 patients received a geriatric or geriatric psychiatry consultation (a mean of 9.4 days after enrolment) as part of usual care; none was seen by the study nurse.

Patients in the intervention group tended to have more frequent documentation of delirium by attending physicians than did patients in the usual care group (41% v. 27%,  $p = 0.03$ ), more frequent decreases in medication (66.4% v. 57.9%,  $p = 0.19$ ) and more frequent consultations to occupational therapy, recreational therapy or social work (64.6% v. 54.4%,  $p = 0.12$ ). As for care by ward nurses, patients in the intervention group had documentation of emotional support (14.3% v. 9.4%,  $p = 0.70$ ) and orienting cues (23.2% v. 16.7%,  $p = 0.22$ ) more often than patients in the usual care group. As for care by families, patients who received the intervention had personal possessions at the bedside more often than those who received usual care (35.4% v. 22.8%,  $p = 0.04$ ). The mean total PSC scores for the intervention and usual care groups were 2.70 (SD 0.60) and 2.69 (SD 0.56) respectively ( $p = 0.85$ ).

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