

Integrating Palliative and Critical Care: Results of a Cluster Randomized Trial

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Context: Because of the high mortality and morbidity in the ICU, palliative care is an important component of intensive care. There is currently debate over whether the best approach to improving ICU palliative care is to educate ICU clinicians, incorporate palliative care consultants, or both.

Objective: Evaluate the effectiveness of a multi-faceted quality-improvement intervention to improve the quality of palliative care in the ICU by educating and supporting ICU clinicians.

Design: A cluster-randomized trial of 12 hospitals assigned to intervention or usual care.

Intervention: The intervention targeted ICU clinicians with 5 components: clinician education, local champions, academic detailing, clinician feedback, and system support.

Outcomes and Analysis: Outcomes were assessed surveying family members and nurses of patients who died in the ICU or within 30 hours of transfer from the ICU. Families completed Quality of Dying and Death (QODD) and family satisfaction surveys. Nurses completed the QODD. Data were collected before and after the intervention/control period at each hospital. We used robust linear and Cox regression to test for intervention effects, controlling for site, patient, family, and nurse variables.

Results: There were 2318 patient deaths. The patient-based survey completion rate for families was 43% (822/1924) and for nurses was 50% (636/1269). The primary outcome, family-QODD, showed no change with the intervention ($p=0.23$). There was also no change in family satisfaction ($p=0.64$) or the nurse-QODD ($p=0.81$). There was a reduction in ICU days prior to death associated with the intervention, but this was not statistically significant ($HR=0.86$; $p=0.07$). Among those patients who underwent withdrawal of life support, the intervention was not associated with a significant reduction in time from ICU admission to withdrawal ($HR=0.93$, $p=0.49$). Palliative care consultation was not available in 5 hospitals and in early development in 6 hospitals; only 6% of patients dying in the ICU received palliative care consultation and there was no effect of the intervention on palliative care consultation.

Conclusions: We found no improvement in family- or nurse-assessed quality of dying or family satisfaction with care associated with this ICU-clinician-focused intervention. There was a non-significant trend toward reduction in ICU length of stay prior to death but no change in time from ICU admission to withdrawal of life support. Improving patient and family outcomes may require more direct contact with patients and families. Incorporation of palliative care consultants into the ICU may offer more opportunity for benefit than exclusively focusing on educating critical care clinicians.