

e-Table 3: Eligibility criteria, intervention and outcomes for trials reporting on ICU length of stay included in estimates of effect, by intervention target

Author (Reference)	Year	Type of study	Patient Population	Intervention	ICU LOS (days)	Difference in ICU LOS	Rel Risk Reduction	Decedent analysis
<i>Intervention Target: Patients in the acute care setting</i>								
Detering et al (24)	2010	RCT	Medical inpatients ≥ 80 years old admitted to internal medicine, cardiology or respiratory medicine in a large university hospital	Formal advance care planning from trained facilitator	Mean 5.3 days in intervention vs. 11 days in control;; median 7 days for intervention vs. 15 days for control ^a	Mean: -5.7 days Median: -8 days	52%	No
<i>Intervention Target: Patients in the outpatient setting</i>								
Bakitas, et al (25)	2009	Multi-center RCT	Patients within 8-12 weeks of a new diagnosis of a life-limiting cancer and prognosis estimated at ~ 1 year	Multi-component, phone based palliative care intervention conducted by advanced practice nurses	No difference (0.06 vs. 0.06, p=1)	No change	0	No
<i>Intervention Target: Patients and/or Providers in the ICU</i>								
Schneiderman, et al (7)	2000	RCT	Adult and pediatric ICU patients in whom value-related treatment conflicts arose during the course of treatment	Ethics consultation	Decreased for decedents in intervention group, 4.2 vs. 13.2, p =0.03	-9 days	68%	Yes
Schneiderman, et al (4)	2003	Multi-center RCT	Adult ICU patients of 7 hospitals in whom value-related treatment conflicts arose during the course of treatment	Ethics consultation	Primary outcome with decedents: intervention 6.42 (SD 6.89) vs. 7.86 (SD 10.48), p=0.03; no difference for survivors	-1.44 days	18%	Yes
Ahrens, et al (28)	2003	Non-RCT, unadjusted	Medical ICU patients identified as having a high risk of dying	Communication team consisting of physician and clinical nurse specialist Proactive case finding facilitated by inpatient palliative care service/palliative care consultation; multifaceted palliative care program including family meetings Proactive case-finding by inpatient palliative care service and palliative care consultation	Shorter LOS in intervention group, 6.1 (SD 5.41) vs. 9.5 (SD 10.16), p=0.009	-3.4 days	36%	No
Campbell and Guzman, et al (29)	2003	Historical controls, unadjusted	Critically ill adults experiencing global cerebral ischemia (GCI) after CPR or multiple system organ failure (MOSF)	Proactive ethics consultation	Decreased from mean 7.1 (SD 1.4) to 3.7 (SD 0.4) days for GCI after CPR, p<0.01; MOSF controls 10.7 (SD 2.2) versus 10.4 (SD 1.6) days, p=0.74	GCI: -3.4 days MOSF: No change	48%	No
Campbell and Guzman, et al (30)	2004	Historical controls, unadjusted	Patients with advanced-stage dementia	Proactive ethics consultation	Decreased from 6.8 (SD 0.98) to 3.5 (SD 0.5), p<0.004	-3.3 days	49%	No
Dowdy, et al (21)	1998	Non-RCT, controlled by regression	ICU patients with >96 hours of mechanical ventilation	Proactive ethics consultation	7 days less for patients who died and 6 days less if in ethics proactive group (results are additive so average LOS for died and ethics consult was 13 days less than survivors in other group)	Survivors: -6 days; Decedents: -13 days	Survivors: 28%; Decedents: 30%	Yes
Lilly, et al (33)	2003	Pre-post, controlled by	Adult patients admitted to a medical ICU	Intensive communication including a	Decreased median LOS from 4 (IQR 2,11) to 3 (IQR 2,6) days	-1 day	25% (median)	No

		regression		multidisciplinary meeting held within 72 hours of ICU admission					
Norton, et al (22)	2007	Pre-post, unadjusted	Medical ICU patients identified as having a high risk of dying	Proactive palliative care consultation	For overall cohort, decreased to 8.96 (SD 9.27) vs. usual care 16.28 (SD 16.54), p=0.001. For MICU decedents 5.72 days in intervention vs 14.12 in usual care, p=0.004. For hospital decedents, 9.17 days in intervention vs 16.09 in usual care, p=0.051.	Overall: -7.32 days MICU decedents: -8.4 days	Entire cohort: 45%; Decedents :60%	Yes	
Andereck, et al (26)	2014	RCT	English-speaking adult patients receiving treatment in the medical/surgical ICU for at least 5 continuous days	Proactive intervention of a series of encounters with a clinical ethicist	Decedents only: 11 days in each arm (p=0.91)	No change	0	Yes	
Daly, et al (35)	2010	Pre-post, controlled by regression	Patients lacking decision-making capacity, with at least 72hr of mechanical ventilation and identified family surrogate decision maker	Intensive communication system, including a family meeting within 5 days of ICU admission and at least weekly after	Control group: mean 13.44 days (SD 9.18); Intervention group: 14.41 days (SD 9.85); p = 0.16	No change	0	No	
<i>Intervention Target: System +/- Patient in ICU setting</i>									
Curtis, et al (31)	2008	Pre-post, controlled by regression	Adult patients who died in the ICU	Multifaceted quality improvement intervention targeting clinicians	Mean pre-intervention 7.19 (SD 8.81) versus post-intervention 5.83 (SD 7.76); Median pre-intervention 3.85 (IQR 1.57, 9.47) versus post-intervention 3.06 (IQR 1.02, 7.25), p=0.01;	Mean: -1.36 days Median: -0.79 days	19% mean; 21% median	Yes	
Mosenthal, et al (32)	2008	Pre-post, controlled by regression	Adult trauma patients admitted to the trauma ICU	Structured palliative care intervention integrated into standard ICU care in post period	For dying patients, mean decreased from 7.6 to 6.1 and median from 3 to 1, no p-value reported	Mean: -1.5 days Median: -2 days	19% mean; 67% median	Yes	
Curtis, et al (27)	2011	Cluster RCT	Adults patients who died in the ICU	Multifaceted quality improvement intervention targeting clinicians	Intervention group [baseline 4.5 (SD 6.0) versus post 5.0 (SD 6.3); Control group [baseline 6.8 (SD 11.1) versus 6.0 (SD 12.3), p =0.07	No change	0	Yes	
Shelton, et al (34)	2010	Pre-post, controlled by regression	Patients admitted to the surgical ICU whose attending physician anticipated a prolonged length of stay or expected death soon	Addition of a full-time family support coordinator to SICU team	Mean 11.80 in pre and 11.43 in post, p=0.89	No change	0	No	

^a Data provided by authors