Evidence Table 17. Outcomes reported in studies addressing communication

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Outcome measures** | **Measures** | **Sample size** | **Disparities** | **Outcomes: Benefits. Significantly improved** | **Outcomes: Benefits. Not significantly improved** | **Outcomes: Harms** | **Other key information** |
| Ahrens et al, 20031 | LOS | Hospital LOS | 151 patients (108 in standard practice, 43 in intervention) | 39-40% African American, 58-60% white, 1-2% Asian | Control 16.4 days, intervention 11.3 days; p = 0.03 |  | None | None |
| LOS | ICU LOS |  |  | Control 9.5 days, intervention 6.1 days; p=0.009 |  |  |  |
| Mortality | Hospital Mortality |  |  |  | Control 93%, Intervention 74%; p =0.14 |  |  |
| Cost |  |  |  | Hospital variable direct charge per case: control $24,080, intervention $15,559; p=0.01; Hospital Varian indirect charge per case: control $8035, intervention $5087; p=0.07; Fixed chargecase: Control $8485, Intervention $5320; p=0.006; |  |  |  |
| Cowan, 20032 | Decision to forgo  Resuscitation |  | 873 | 6% African Americans | Receiving the intervention increased the average predicted probability of deciding to forgo resuscitation by about 50%, from 18% to 28%. (OR 1.81, p=0.017) |  | None |  |
| Decision to give comfort care only |  |  |  | Receiving the intervention increased the average predicted probability of choosing comfort care by 59%, from 14% to 22%. (OR 1.94, p= 0.018) |  | None |  |

Evidence Table 17. Outcomes reported in studies addressing communication (continued)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Outcome measures** | **Measures** | **Sample size** | **Disparities** | **Outcomes: Benefits. Significantly improved** | **Outcomes: Benefits. Not significantly improved** | **Outcomes: Harms** | **Other key information** |
| Cowan, 20032  (continued) | Decision to treat aggressively |  |  |  | Receiving the intervention increased the average predicted probability of choosing aggressive care by almost 90%, from 10% to nearly 20%. (OR 2.30, p=0.002). |  | None |  |
| Satisfaction; Overall satisfaction with care |  |  |  |  | Intervention vs. Control (OR 0.68, p=0.14) | None |  |
| Satisfaction with information provided Satisfaction |  |  |  |  | Intervention vs. Control (OR 0.86, p=0.44) | None |  |
| Satisfaction; Satisfaction with involvement in decision making |  |  |  |  | Intervention vs. Control (OR 0.84, p=0.54) | None |  |
| Campbell & Guzman, 20033 | LOS | Hospital los (days in means) | Total 81; retrospective control 40, intervention 41 | None noted. | Global cerebral ischemia patients: control 8.6 days, intervention 4.7 days; p < 0.001 | Multi-system organ failure patients: control 20.6 days, intervention 15.1 days; p = 0.063 | None | None |
| LOS | ICU LOS (days in means) |  |  | GCI: control 7.1 days, Intervention 3.7 days; p < 0.01 | MOSF: control 10.7 days, intervention 10.4 days; p = 0.735 |  |  |
| LOS | DNR status (days in means) |  |  | MOSF to DNR: control 4.7 days, intervention 1.5 days; p < 0.05; | MOSF admission to DNR: control 10.7 days, intervention 10.4 days; p = 0.735; GCI admission to DNR: control 3.5 days, intervention 2.8 days; p = 0.063 |  |  |

Evidence Table 17. Outcomes reported in studies addressing communication (continued)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Outcome measures** | **Measures** | **Sample size** | **Disparities** | **Outcomes: Benefits. Significantly improved** | **Outcomes: Benefits. Not significantly improved** | **Outcomes: Harms** | **Other key information** |
| Campbell & Guzman, 20033  (continued) | LOS | CMO status (days in means) |  |  | MOSF to CMO: control 7.3 days, intervention 2.2 days, p< 0.05; GCI hosp admission to CMO: control 6.3 days, intervention 3.5 days; p < 0.05 |  |  |  |
| LOS | MOSF to death (days in means) |  |  | Control 5.8 days, intervention 2.1 days; p<0.05 |  |  |  |
| Use of hospital resources | Therapeutic Intervention Scoring System - after withhold support |  |  |  | MOSF: Decrease of: Control 1.8, intervention 4.1; p=0.37, GCI: Decrease of: Control 3.8, intervention 4.3; p=0.41 |  |  |
|  | Therapeutic Intervention Scoring System - after make patient CMO |  |  | MOSF: Decrease of: control 12, intervention 25.6; p < 0.05 | GCI: Decrease of: control 19.4, intervention 15.4; p=0.34 |  |  |

Evidence Table 17. Outcomes reported in studies addressing communication (continued)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Outcome measures** | **Measures** | **Sample size** | **Disparities** | **Outcomes: Benefits. Significantly improved** | **Outcomes: Benefits. Not significantly improved** | **Outcomes: Harms** | **Other key information** |
| Clayton, 20074 | Primary outcome: total number of patient questions during the consultation and patient preference for information | Spiel-Berger State Anxiety Inventory | 174 patients | None | Patients in the QPL group asked 2.31 times (95% CI, 1.68 to 3.18 times) more questions directly requesting for information during the consultation than controls (P .0001). 23% (95% CI, 11% to 37%) more items were discussed during consultations with QPL patients than controls (P .0001). |  |  | Thespis a 16-page A5 booklet (Appendix, online only) containing 112 questions grouped into nine topics encompass-ing issues that may be discussed with a physician or another health professional. Unmet patient information need, was reduced by the QPL. |
| Satisfaction, Patient satisfaction with the consultation |  |  |  |  | Patients were highly satisfied with the consultation in both groups (mean score out of 125: QPL, 110.1 v control, 110.3; 95% CI for difference, 3.4 to 2.9) |  |  |
| Other  Patient anxiety |  |  |  |  | Patient anxiety scores were similar in both groups (mean, 40.3 in both groups; 95% CI for difference, 2.7 to 2.7). |  |  |

Evidence Table 17. Outcomes reported in studies addressing communication (continued)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Outcome measures** | **Measures** | **Sample size** | **Disparities** | **Outcomes: Benefits. Significantly improved** | **Outcomes: Benefits. Not significantly improved** | **Outcomes: Harms** | **Other key information** |
| Muir, 20105 | LOS |  | 480 | None |  | Control 22.84 (13.36) vs. Intervention 24.86 (13.04), P=0.07 | None |  |
| LOS; ICU stay |  |  |  |  | Control 13.44 (9.18) vs. Intervention 14.41 (9.85), P=0.16 | None |  |
| Presence of Living will |  |  |  |  | Control 30 (22.2) vs. Intervention 53 (15.3), P=0.07 | None |  |
| DNAR order |  |  |  |  | Control 46 (34.1)vs. Intervention 107 (30.9), P=0.51 | None |  |
| Number of Tracheotomy |  |  |  |  | Control 74 (55.6) vs. Intervention 169 (49.3), P=0.21 | None |  |
| ICU Mortality |  |  |  |  | Control 26 (19.3) vs. Intervention 67 (19.4), P=0.98 | None |  |
| Post-discharge Mortality |  |  |  |  | Control 19 (21.6) vs. Intervention 38 (15.9), P=0.03 | None |  |

Evidence Table 17. Outcomes reported in studies addressing communication (continued)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Outcome measures** | **Measures** | **Sample size** | **Disparities** | **Outcomes: Benefits. Significantly improved** | **Outcomes: Benefits. Not significantly improved** | **Outcomes: Harms** | **Other key information** |
| Gade, 20086 | Patient symptoms; Primary study outcomes: symptom control | Physical Area scale of the Modified City of Hope Patient Question-naires, Emotional Relationship Area and Spiritual Area scales, Place of Care Environment scale and the Doctors, Nurses Other Care Providers Communica-tion scale, Eastern Cooperative Oncology Group performance scale. | 517 patients | None |  | No difference between IPCS and UC groups for patient symptom control. | None | This study provides evidence for the positive impact of IPCS consultations on satisfaction with care and decreased health care costs. It also contributes new information on the impact of this service on ICU admissions and hospice utilization. |
| Satisfaction; Primary study outcomes: patient satisfaction |  |  |  | IPCS group reported higher mean satisfaction for both the Place of Care Environment scale (IPCS: 6.8; UC: 6.4, p 001.) |  |  |  |
| QOL; Primary study outcomes |  |  |  |  | No difference between IPCS and UC groups for quality of life. |  |  |

Evidence Table 17. Outcomes reported in studies addressing communication (continued)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Outcome measures** | **Measures** | **Sample size** | **Disparities** | **Outcomes: Benefits. Significantly improved** | **Outcomes: Benefits. Not significantly improved** | **Outcomes: Harms** | **Other key information** |
| Gade, 20086  (continued) | Psychosocial symptoms and support; levels of emotional Primary study outcomes: spiritual support |  |  |  |  | No difference between IPCS and UC groups for emotional and spiritual support. |  |  |
| Primary study outcomes: total health services costs at 6 months post index hospitalization |  |  |  | Total mean health costs for the IPCS group were lower by $6,766 per patient compared to UC patients (IPCS: $14,486; UC: $21, 252, p 0.001). |  |  |  |
| Secondary measures: survival |  |  |  |  | No difference between IPCS and UC groups for survival. |  |  |
| Secondary measures: number of advance directives (ads) at discharge |  |  |  | IPCS patients completed significantly more ADS at hospital discharge than UC patients (91.1% vs. 77.8%; p0.001), |  |  |  |
| Secondary measures: hospice utilization within the 6 months post index hospitalization. |  |  |  | IPCS patients had significantly longer median hospice stays than UC participants (IPCS: 24 days; UC: 12days, p0.04) |  |  |  |
| Secondary measures: ICU admissions |  |  |  | Fewer ICU admissions IPCS 12 vs. UC 21 (P=0.04) |  |  |  |

Evidence Table 17. Outcomes reported in studies addressing communication (continued)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Outcome measures** | **Measures** | **Sample size** | **Disparities** | **Outcomes: Benefits. Significantly improved** | **Outcomes: Benefits. Not significantly improved** | **Outcomes: Harms** | **Other key information** |
| Hanks, 20027 | Symptom | VAS, mood (Memorial Pain Assessment Card), emotional (WONCA scale) | 261 | None |  | No diff; Symptom severity (p=0.48), Mood (p=0.45), emotional problems (0.58) |  |  |
| Satisfaction | Macadam’s Assessment of Suffering Questionnaire, FAMCARE scale, the Hospital Anxiety and Depression scale | 261 | None |  | No p values given but no apparent differences. |  | This study didn’t show a significant difference between the ‘full-PCT’ and ‘telephone-PCT’ in respect of the primary outcome measures, and particularly symptoms and HRQOL |
| QOL, Health-related quality of life | EORTC QLQ-C30 questionnaire, |  |  |  | No significant diff between groups (p = 0.45). |  |  |
| LOS |  |  |  |  | Full PCT 14.7 (9.4) days vs. Telephone PCT 13.2 (9.6) days. P value not given |  |  |
| Jacobsen, 20118 | Advance care plan discussion |  | 899 | None | 33.8% intervention vs. 21.2% control, p<0.001 | None | None |  |
| Presence of an order at the time of discharge to limit life-sustaining treatment |  |  |  | 19.1% intervention vs. 13.9% control, p<0.044 | None | None |  |

Evidence Table 17. Outcomes reported in studies addressing communication (continued)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Outcome measures** | **Measures** | **Sample size** | **Disparities** | **Outcomes: Benefits. Significantly improved** | **Outcomes: Benefits. Not significantly improved** | **Outcomes: Harms** | **Other key information** |
| Kaufer, 20089 | Overall satisfaction with hospital experience; Satisfaction | Family Satisfaction with Care Questionnaire | 88 | 67% African American |  | No significant change | None |  |
| Satisfaction with amount of treatment received | Family Satisfaction with Care Questionnaire |  |  | Increased from 44% to 75%(P = .03) |  | None |  |
| Satisfaction; Patient life not prolonged or shortened unnecessarily | Family Satisfaction with Care Questionnaire |  |  | Increased from 47% pre-intervention to 73% post-intervention (P =0.016) |  | None |  |
| Satisfaction  Satisfaction with understanding of information | Family Satisfaction with Care Questionnaire |  |  | Increased from 44% to 73% (P=0.005) post-intervention |  | None |  |
| Distress  Emotional support | Family Satisfaction with Care Questionnaire |  |  | Increased from 76% to 86% (P<0.05) |  | None |  |
| Patient Symptom management symptoms | Family Satisfaction with Care Questionnaire |  |  |  | No significant change | None |  |
| Other Involvement in decision making | Family Satisfaction with Care Questionnaire |  |  | Increased from 40% to 70% (P = .004). |  | None |  |

Evidence Table 17. Outcomes reported in studies addressing communication (continued)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Outcome measures** | **Measures** | **Sample size** | **Disparities** | **Outcomes: Benefits. Significantly improved** | **Outcomes: Benefits. Not significantly improved** | **Outcomes: Harms** | **Other key information** |
| Kaufer, 2008  (continued) | Satisfaction with frequency of communication Other | Family Satisfaction with Care Questionnaire |  |  | Communication from doctors (44% to 76%, p=0.003), from nurses (72% to 91%, p=0.021) of information, honesty of information, and completeness of information increased from 44% to 73%, 56% to 80%, and 49% to 78%, respectively (P =0.005, 0.015, and 0.005 respectively). |  | None |  |
| Lautrette et al, 200710 | Distress;  Caregiver distress | Impact of Event Scale Score | Control group 63 patients, Intervention group 63 patients. | 86 (intervention) or 88% (control) of patients were of French descent | Intervention IES score median 27 (IQR 18-42) vs. Control IES score 39 (IQR 25-48); p=0.02; 45% of families in intervention group at risk for PTSD and 69% of families in control group at risk for PTSD |  | None noted. | Symptoms of anxiety & depression - also significantly different; most measures of effectiveness of overall information provided were not statistically significantly different; use of non-beneficial interventions (ventilation, others) not significantly different |

Evidence Table 17. Outcomes reported in studies addressing communication (continued)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Outcome measures** | **Measures** | **Sample size** | **Disparities** | **Outcomes: Benefits. Significantly improved** | **Outcomes: Benefits. Not significantly improved** | **Outcomes: Harms** | **Other key information** |
| Lautrette et al, 200710 | Psychosocial symptoms and Caregiver distress support | Hospital Anxiety and Depression Scale |  |  | Intervention HADS score median 11 (IQR 8-18) vs. Control HADS 17 (IQR 11-25); p=0.004; |  |  |  |
| LOS | Number of days in ICU from admission to decision to forgo life-sustaining treatments |  |  |  | Intervention 2 days (IQR 2-14), Control 5 days (IQR 2-10), p=0.38 |  |  |
| Discussion of goals of care by physicians on rounds |  |  |  | Discussion of goals of care by physicians on rounds increased from 4% to 36% of patient-days. |  |  |  |
| Do not resuscitate and Withdrawal of life support |  |  |  |  | DNR (43%) and WD (24%) were unchanged. |  |  |
| Mortality rate |  |  |  |  | During intervention, rates of mortality (14%), |  |  |

Evidence Table 17. Outcomes reported in studies addressing communication (continued)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Outcome measures** | **Measures** | **Sample size** | **Disparities** | **Outcomes: Benefits. Significantly improved** | **Outcomes: Benefits. Not significantly improved** | **Outcomes: Harms** | **Other key information** |
| Lilly, 200311 | Length of stay (primary vs. Secondary not stated) | ICU LOS | 2495 Patients | None | Length of stay in the ICU was reduced from 4 [2–11] to 3days [2–6 days, interquartile range; n 2361] | None | None | Intensive communication is a process based intervention that encourages the use of advanced supportive technology when it is effective for accomplishing patient-directed goals and facilitates acceptance of a comfort-focused care plan for dying patients. |
| Mortality | Mortality |  |  | ICU mortality rate in follow-up study was 18.0% and lower than the rate of 31.3% observed for our pre-intervention group (chi-square p .001) |  |  |  |
| LOS | Adjustment for acute physiology and chronic health evaluation 3 score | 530 | African Americans, Hispanics, Asians | 4 days (2 to 11days) to 3 days (2 to 6 days) P= 0.01. APACHE 3 score [risk ratio- 0.81, 95% confidence interval (CI), 0.66 to 0.99, P- 0.04 | None | None |  |

Evidence Table 17. Outcomes reported in studies addressing communication (continued)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Outcome measures** | **Measures** | **Sample size** | **Disparities** | **Outcomes: Benefits. Significantly improved** | **Outcomes: Benefits. Not significantly improved** | **Outcomes: Harms** | **Other key information** |
| Lilly, 200012 | Mortality |  |  |  | 7 of 35patients (20%) died in the pre-intervention period, and 5 of 102 patients (5%) died in the intensive communication period (P - 0.02). | None | None |  |
| Rate of family non-consensus |  |  |  | 171 days per 1,000 patient-days to 16days per 1,000 patient-days (1.7 to 0.09 days per patient) after the intervention (P-0.001) | None | None |  |
| Rate of provider non-consensus |  |  |  | 65 days per 1,000 patient days to 4 days per 1,000 patient-days, (0.56 to 0.02 days per patient) | None | None |  |
| Molloy, 200013 | Satisfaction | Satisfaction questionnaires | 1133 | None |  | Mean diff -0.16 [-0.41-0.1], P=0.24 | None |  |
| Hospital cost |  |  |  |  | Hosp cost: intervention Can$1772, control Can$3869, (p=0.003); total health care & implement cost intervention Can$3490, control Can$5239 (p=0.01) |  |  |
| Risk of hospitalization and # hosp days |  |  |  | Risk of hosp: Intervention 0.27, control 0.48 (p=0.001); # hosp days: intervention 2.61, control 5.86 (p=0.01) |  | None |  |
| Mortality rate |  |  |  |  | Intervention and control homes (24% vs. 28%; P = .20). | None |  |

Evidence Table 17. Outcomes reported in studies addressing communication (continued)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Outcome measures** | **Measures** | **Sample size** | **Disparities** | **Outcomes: Benefits. Significantly improved** | **Outcomes: Benefits. Not significantly improved** | **Outcomes: Harms** | **Other key information** |
| Mosenthal, 200814 | LOS;  Hospital LOS | Glasgow Coma Scale, severe head injury, Injury Severity Score. | 367 | None | In baseline patients ICU LOS mean 7.6, median 3, hospital LOS mean 14.4, median 3.5, In intervention patients ICU LOS mean 6.1, median 1, hospital LOS mean 6.5, median 1.5 |  | None |  |
| Norton, 2007{ #16225} | LOS; MICU LOS |  | 191 | African American (19.4%), Hispanic (3%) | The proactive PC intervention group was 8.96 days compared with 16.28 days for the usual care group, a statistically significant difference of 7.32 days (p=0.0001) |  | None |  |
| LOS |  |  |  |  | The usual care group: 41.40 days compared with 35.8 days for the proactive PC intervention group (p=0.5011) | None |  |
| Mortality rate |  |  |  |  | In hospital mortality - 55.4% control vs. 59.5% intervention - no change the MICU death rate was 25 of 65 (38.5%) in the usual care group and 46 of 126 (36.5%) in the proactive PC intervention group. (p=0.6128). | None |  |

Evidence Table 17. Outcomes reported in studies addressing communication (continued)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Outcome measures** | **Measures** | **Sample size** | **Disparities** | **Outcomes: Benefits. Significantly improved** | **Outcomes: Benefits. Not significantly improved** | **Outcomes: Harms** | **Other key information** |
| Penticuff, 200515 | Parental satisfaction with participation, care and relationship ;Satisfaction | Collaboration and Satisfaction About Care Questionnaire | 154 | African American (15%), Hispanic (34%) |  | Intervention vs. Control with care 64.98 vs. 65.69 (p<0.610), with relationship 193.11 vs. 193.35 (p <0.960) | None |  |
| Parent's comprehension of medical information | Subscale of Parents’ Understanding of Infant Care and Outcomes Questionnaire |  |  | Had fewer unrealistic concerns 4.32 vs. 8.56 (p=0.018) |  | None |  |
| Parent's understanding of infant care | Five-point Likert scale of 30 items. |  |  | Less uncertainty about infant care intervention vs. Control mean 1.92 vs. 3.82 (p=0.003) |  | None |  |
| Decision conflicts | Decision Conflict Scale |  |  | Intervention vs. Control; mean 45.88 vs. 59.10 (p<0.001) |  | None |  |
| Amount of shared decision making |  |  |  | Intervention vs. Control 139 vs. 122.69 (p=0.010) |  | None |  |

Evidence Table 17. Outcomes reported in studies addressing communication (continued)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Outcome measures** | **Measures** | **Sample size** | **Disparities** | **Outcomes: Benefits. Significantly improved** | **Outcomes: Benefits. Not significantly improved** | **Outcomes: Harms** | **Other key information** |
| Sampson, 201116 | Number of carers making Advanced care planning |  | 32 |  |  | Only seven carers made ACPs. The care planning discussion was well received, but few carers wrote an ACP, despite intensive support from an experienced nurse specialist. | none | Attrition precluded statistical comparison of control and intervention groups, but some trends are suggested by the data. |
|  | Carer satisfaction | Life satisfaction scale LSQ |  |  |  | Intervention vs Control at baseline: 4.5(1.1) vs 4.6(1.2), at 6months 5.4(0.9) vs 5.5(0.6) |  |  |
|  | carer distress | Kessler distress scale KD10 |  |  | Intervention vs Control at baseline; 20.7(6.8) vs 22.7(10.3), at 6months 14.6(3.4) vs 15.0(4.4). Improvement in the months following the patient’s index admission |  |  |  |
|  | Patient pain | visual analogue scale VAS |  |  |  | no observable trends in the carer ratings of patients’ pain. |  |  |
|  | Patient distress | visual analogue scale VAS |  |  |  | no observable trends in the carer ratings of patients’ distress. |  |  |

Evidence Table 17. Outcomes reported in studies addressing communication (continued)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Outcome measures** | **Measures** | **Sample size** | **Disparities** | **Outcomes: Benefits. Significantly improved** | **Outcomes: Benefits. Not significantly improved** | **Outcomes: Harms** | **Other key information** |
| Schneiderman, 200317 | LOS; Hospital days |  | 546 | African Americans, Hispanics, Asians | Intervention (n=173) vs. Control patients (n=156) hospital days (−2.95 days, P=.01) |  | None | This study showed that ethics consultations in the ICU were helpful in addressing treatment conflicts. |
| Days receiving ventilation |  |  |  | Intervention vs. Control patients (−1.7 days, P=.03) |  | None |  |
| Days receiving artificial nutrition hydration |  |  |  |  | Days receiving nutritionhydration (-1.03days, P=.14) | None |  |
|  | Days receiving artificial nutrition and hydration |  |  |  | Control 12.0 vs. Intervention 4.1(p 0.05) |  | None |  |
| Days receiving ventilation |  |  |  | Control 11.4 vs. Intervention 3.7 (p 0.05) |  | None |  |
| % of patients receiving CPR, DNAR, gastrostomy, tracheotomy, transfusion, ventilator |  |  |  |  | No difference. |  |  |
| Overall mortality |  |  |  |  | There were no differences - p=1.0 - in overall mortality between the control patients and patients receiving ethics consultations. | None |  |
| Schneiderman, 200018 | LOS; ICU days |  | 70 | African Americans, Hispanics, Asians | There was a reduction in ICU days: control13.2 days vs. Intervention 4.2 days (p 0.03) |  | None |  |

Evidence Table 17. Outcomes reported in studies addressing communication (continued)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author, year** | **Outcome measures** | **Measures** | **Sample size** | **Disparities** | **Outcomes: Benefits. Significantly improved** | **Outcomes: Benefits. Not significantly improved** | **Outcomes: Harms** | **Other key information** |
| Tulsky, 201119 | Audio recordings to measure the emotion-handling skills outcomes of providers |  | 264 | 10% Black, 4% Hispanic | The mean number of empathic statements per conversation increased (mean, 0.8 [SD, 1.3] in the intervention group vs. 0.4 [SD, 0.8] in the control group). This value increased more among oncologists in the intervention group (adjusted rate ratio, 1.9 [CI, 1.1 to3.3]; P 0.024) |  |  |  |
|  | Patient perceptions; trust, perceieved empathy, therapeutic alliance, perceived knowledge of patient, perceieved belief that provider cares, perceived belief that provider understood patient as a whole person |  |  |  | Trust scale: intervention versus control; 4.7 (4.6-4.8) vs 4.6 (4.5-4.7), mean difference 0.1 90.0-0.2), p value= 0.036. | Perceived empathy scale p value= 0.058, Therapeutic alliance scale pvalue= 0.27, perceieved knowledge of patient p value= 0.28, perceived belief that provider cares p value= 0.63, perceived belief that oncologist understood patient as a whole pvalue= 0.093 | none | In this study, the control oncologists performed slightly worse in the postintervention phase. To improve the quality of communication in medical encounters, more physicians should receive communication skills training that includes individualized, reflective feedback. |

**Abbreviations:** Can $=Canadian dollar; CMO=Comfort measures only; CPR=Cardiopulmonary resuscitation; DNARDNR=Do not attempt resuscitation; EORTC QLQ C-30=European organization for research and treatment of cancer quality of life questionnaire; GCI=Global cerebral ischemia; HADS=Hospital anxiety and depression scale; HRQOL=Health related quality of life; ICU=Intensive care unit; IPCS=Interdisciplinary palliative care service; IES=Impact of event scale; IQR=Interquantile range; LOS=Length of stay; MICU=Medical intensive care unit; MOSF=Multi-organ systems failure; PC=Palliative care; PCT=Palliative care team; PTSD=Post-traumatic stress disorder; QOL=Quality of life; QPL=Question prompts lists; UC=Usual care; WD=Withdrawal of life support; VAS=Visual analog scale; WONCA=World Organization of National Colleges and Academic

**Evidence Table 17 Reference List**

1. Ahrens T, Yancey V, Kollef M. Improving family communications at the end of life: implications for length of stay in the intensive care unit and resource use. Am J Crit Care 2003; 12(4):317-23; discussion 324.

2. Cowan JD, Burns D, Palmer TW, Scott J, Feeback E. A palliative medicine program in a community setting: 12 points from the first 12 months. Am J Hosp Palliat Care 2003; 20(6):415-33.

3. Campbell ML, Guzman JA. Impact of a proactive approach to improve end-of-life care in a medical ICU. Chest 2003; 123(1):266-71.

4. Clayton JM, Butow PN, Tattersall MH *et al*. Randomized controlled trial of a prompt list to help advanced cancer patients and their caregivers to ask questions about prognosis and end-of-life care. J Clin Oncol 2007; 25(6):715-23.

5. Muir JC, Daly F, Davis MS *et al*. Integrating palliative care into the outpatient, private practice oncology setting. J Pain Symptom Manage 2010; 40(1):126-35.

6. Gade G, Venohr I, Conner D *et al*. Impact of an inpatient palliative care team: a randomized control trial. J Palliat Med 2008; 11(2):180-90.

7. Hanks GW, Robbins M, Sharp D *et al*. The imPaCT study: a randomised controlled trial to evaluate a hospital palliative care team. British Journal of Cancer 2002; 87(7):733-9.

8. - Jacobsen Juliet, - Robinson Ellen, - Jackson VA, - Meigs JB, - Billings J Andrew. - Development of a Cognitive Model for Advance Care Planning Discussions: Results From a Quality Improvement Initiative. - Journal of Palliative Medicine - 201103; - 14(- 3):- 331, - 336.

9. Kaufer M, Murphy P, Barker K, Mosenthal A. Family satisfaction following the death of a loved one in an inner city MICU. Am J Hosp Palliat Care 2008; 25(4):318-25.

10. Lautrette A, Darmon M, Megarbane B *et al*. A communication strategy and brochure for relatives of patients dying in the ICU. N Engl J Med 2007; 356(5):469-78.

11. Lilly CM, Sonna LA, Haley KJ, Massaro AF. Intensive communication: four-year follow-up from a clinical practice study. Crit Care Med 2003; 31(5 Suppl):S394-9.

12. Lilly CM, De Meo DL, Sonna LA *et al*. An intensive communication intervention for the critically ill. Am J Med 2000; 109(6):469-75.

13. Molloy DW, Guyatt GH, Russo R *et al*. Systematic implementation of an advance directive program in nursing homes: a randomized controlled trial. JAMA 2000; 283(11):1437-44.

14. Mosenthal AC, Murphy PA, Barker LK, Lavery R, Retano A, Livingston DH. Changing the culture around end-of-life care in the trauma intensive care unit. J Trauma 2008; 64(6):1587-93.

15. Ritchie L. Planning end-of-life care. Nurs N Z 2011; 17(9):23.

16. Sampson EL, Jones L, Thune-Boyle IC *et al*. Palliative assessment and advance care planning in severe dementia: an exploratory randomized controlled trial of a complex intervention. Palliat Med 2011; 25(3):197-209.

17. Schneiderman LJ, Gilmer T, Teetzel HD *et al*. Effect of ethics consultations on nonbeneficial life-sustaining treatments in the intensive care setting: a randomized controlled trial. JAMA 2003; 290(9):1166-72.

18. Schneiderman LJ, Gilmer T, Teetzel HD. Impact of ethics consultations in the intensive care setting: a randomized, controlled trial. Crit Care Med 2000; 28(12):3920-4.

19. Tulsky J, Arnold R, Alexander S *et al*. Enhancing communication between oncologists and patients with a computer-based training program: a randomized trial. Annals of Internal Medicine 2011; 155(9):593-601.