

Appendix Table 4. Continuity*

Author, Year (Reference); Country	Funding Source	Study Design and Quality	Population†	Sampling Approach and Setting	Intervention Description	Control Description	Time Point for Outcome Analysis	Outcomes	Description of Results
Ahrens et al., 2003 (119); USA	Barnes-Jewish Foundation	Nonrandomized with comparison group Jadad: NA	Number approached: Not reported Number enrolled: 151 (43 intervention) Number in analysis of results: 151 Age: mean years intervention 65 vs. 61 control Gender : 51% intervention vs. 45% control Race/ethnicity: intervention white 58% vs. control 60% Disease: diverse Severity: Patients clinically thought to be at high risk of dying according to judgment of intervention team	Consecutive patients at one hospital judged to be at high risk of death	A physician-nurse specialist team focused on improving communication in addition to ICU medical care delivery	Usual care as delivered by other ICU attending physicians	Not reported	Mortality, costs, and lengths of stay	ICU death was lower with reduced ICU LOS (6.1 vs. 9.5 days, p<0.01), hospital LOS (11.3 vs. 16.4 days, p=0.03) and direct hospital costs (\$15,559 vs. \$24,080)
Coleman et al., 2006 (127); USA	John A. Hartford Foundation, Paul Beeson Faculty Scholars in Aging Program	RCT Jadad: 3	Number approached: 2338 Number enrolled: 750 randomized Number in analysis of results: 712 Age: mean 76 years Gender: 48% female Race/ethnicity: 88 % white, 5% black, 7% Hispanic (intervention, no difference with control) Disease: 11 acute or chronic causes of hospitalization Severity: chronic disease score 7 (intervention, no difference with control)	Nondemented, nonpsychiatric admissions from within a large not for profit capitated care system admitted to a single hospital	Assistance with medication self-management, patient-centered and maintained portable health record, facilitated primary care follow-up, and coaching for management of exacerbations. The intervention focused on contact during the first month following enrollment.	Usual care	30, 90, and 180 days	Nonelective readmission, rehospitalization for the initial primary admission diagnosis	Intervention patients had lower rehospitalization rates at 30 (8.3% vs. 11.9%, p=0.48), 90 (16.7% vs. 22.5%, p=0.04), but not significantly different at 180 days (25.6% vs. 30.7%, p=0.28). Hospital costs were lower at all 3 time points among intervention patients.
Englehardt et al., 2006	Robert Wood Johnson, Fan	RCT	Number approached: Not reported	Patient recruited from within 3 VA medical	Palliative care oriented care	Usual care	3 and 6 month patient and 3	Effectiveness of communication with	The intervention was associated with increased patient

(112); USA	Fox/Leslie R. Samuels, and Nathan Cummings Foundations		Jadad: 3	Number enrolled: 275 randomized Number in analysis of results: 275 Age: mean intervention 71 years Gender: 81% male Race/ethnicity: 88% white, 11% black, and 1% other Disease: 63% cancer, 20% COPD, and 17% CHF Severity: Other than cancer, patients all met criteria of 1 ICU or 2 hospitalizations in the prior 6 months	centers, one home care, and 2 managed care organizations	coordination delivered by nurses, social workers	month surrogate outcomes	providers, satisfaction, willingness to participate in treatment planning, advance directive completion, costs	satisfaction with care and communication, and surrogates reported fewer problems with provider support. More intervention patients completed advance directives (69% vs. 48%, p=0.006). Median time to AD completion was 46 vs. 238 days (p=0.02). There were no differences in survival and a trend toward lower costs.	
Goldberg et al., 2003 (120); USA	Alere Medical	RCT	Jadad: 2	Number approached: Not reported Number enrolled: 280 Number in analysis of results: 278 (for mortality), 241 (other outcomes) Age: mean years 59 Gender : 68% male Race/ethnicity: intervention white 67% vs. control 61% Disease: CHF Severity: 75% NYHA class III and 25% class IV in both groups	Patients hospitalized with NYHA Class III or IV CHF or with an LVEF < 35%, at 8 community and 8 heart transplant centers in USA	AlereNet monitoring system and DayLink monitor including electronic scale, personalized symptom response system linked via phone to cardiac nurses at Alere, clinical data communicated to responsible physician	Usual care which often included heart failure programs (proportion and nature of control not further described)	Baseline, 2 week, 3 and 6 month clinical visits; mortality and utilization at 7 months	180 day readmission rate, mortality, CHF readmission, ED visitation, HR-QOL, satisfaction	No differences in hospitalization, but lower mortality (11 intervention vs. 26 control deaths, p=0.003), no difference in HR-QOL by several measures
Goodyer et al., 1996 (125); UK	Not reported	RCT	Jadad: 2	Number approached: Not reported Number enrolled: 100 Number in analysis of results: 100 Age: mean years 65 intervention, 64	Hospital-based geriatric clinic outpatients > 70 years of age with stable CHF	Education and counseling for appropriate medication usage	Usual care	Baseline and approximately 8 weeks later	Symptoms exercise testing, and clinical assessment	Exercise testing and distance to breathlessness improved, along with medication knowledge in the intervention group.

			control Gender : male 30% intervention, 24% control Race/ethnicity: Not reported Disease: CHF Severity: Not reported						
Gorski and Johnson, 2003 (121); USA	Not reported	Uncontrolled pre-post	Number approached: 74 referrals	Referrals from a large, integrated managed care program	CHF disease management program (based in a home care agency) including structured assessments, telephone contact, medication protocols, patient education, and depression follow-up – coordinated with a managed care plan	NA	Baseline program inception to 9 months	Processes of care, satisfaction	Satisfaction was high, nurses intervened for aggressive fluid management 33 times in 22 patients
		Jadad: NA	Number enrolled: 74 Number in analysis of results: 51 Age: Mean years 74 Gender: Male 37% Race/ethnicity: Not reported Disease: CHF Severity: Mostly advanced (50% NYHA class III)						
Loeb et al., 2006 (126); Canada	Canadian Institute of Health Research, Physicians Services, Inc Foundation of Ontario	Cluster RCT	Number approached: 36 homes, 2513 residents	Residents 65 years of age and older who met a standardized definition of lower respiratory tract infection, excluding those with prior 'no hospitalization' advance directives	Clinical pathway using clinical nurses, radiography, intravenous treatment, and antibiotics in the nursing home	Physician-directed usual care	Up to 30 days	Hospitalization and length of stay, emergency department visits, MDS 2.0 quality of life	The weighted mean reduction in hospitalization was 12% (95% CI, 5% to 18%, p=0.001). Rate of hospitalization in usual care was 22%. There were no differences in mortality, quality of life, or functional status between groups.
		Jadad: 3	Number enrolled: 22 homes and 680 residents randomized Number in analysis of results: 671 residents Age: mean 85 years Gender: 70% female Race/ethnicity: not reported Disease: Cancer, heart failure, cerebrovascular, and renal disease Severity: severity of illness score, 0.63						
Mann et al., 1999 (123); USA	Administration on Aging, Andrus Foundation	RCT	Number approached: Not reported	Cognitively intact frail elders referred from community and hospital-based rehabilitation	In-home functional assessments and supportive training and follow-up from a nurse, OT, and	Usual care	Baseline and every 6 months follow-up of function, health status, and cost	Function, pain, costs	Both groups declined, but more so on the Functional Independent Measure in the control group (-2.12 vs -4.28), pain worsened more in the

				services in Western NY	technician		up to 18 months; monthly phone contact		control (0.03 vs. 2.05 on 0–20 point scale). Although in home treatment costs were higher, long term care utilization was lower among intervention participants.
		Jadad: 3	Number enrolled: 104 Number in analysis of results: 90 Age: mean years 70 Gender: male 30% Race/ethnicity: white 71% Disease: Diverse Severity: Frail with mean number of chronic conditions of 6.5, days in hospital prior 6 months mean 5.3						
Melin and Bygren, 1992 (124); Sweden	Aldre Centrum Foundation, Stockholm County Council, and Central Stockholm Public Health District	RCT	Number approached: 745	Discharged patients from the internal medicine or orthopedics of the local general county hospital	Multidisciplinary physician led team including geriatrician and psychiatrist with 24 hour on call contact	Usual care	6 months	Baseline and 6 month function, cognition. Social activity and contact, utilization	Among approximately 75% of survivors in both groups, among the intervention vs. controls there was a greater improvement in IADL (4.9 vs. 3.2, p=0.04), walking ability, and slight improvement in overall medical condition.
		Jadad: 2	Number enrolled: 249 Number in analysis of results: 183 Age: mean years 80 Gender: male 29% intervention vs. 27% control Race/ethnicity: Not reported Disease: Diverse Severity: Katz personal ADL mean at baseline 2.4 intervention vs. 2.3 control, and IADL 6.0 in both groups						
Philbin et al., 2000 (122); USA	VHA Empire State, NY State Department of Health	CCT of hospitals	Number approached: Not reported	10 acute care hospitals in upstate New York	Quality improvement intervention including inpatient critical pathway, ED critical pathway, implementation assistance from a consulting firm, provider education, patient and family educational aids, hospital-specific process and outcome benchmarks and feedback	Usual care	Hospitalization and posthospitalization quality of care; 6 month HR-QOL	5 quality of care measures: LVEF evaluation, evaluation of primary clinical cause, dietary counseling, and 2 measures of ACEI prescription; HR-QOL	No difference in hospital-level outcomes analysis
		Jadad: NA	Number enrolled: 10 hospitals Number in analysis of results: 10						

hospitals, 1402 preintervention and 1504 postintervention patients with CHF
 Age: 74–77 mean years in all groups
 Gender: Not reported
 Race/ethnicity: 97–98% white in all groups
 Disease: CHF
 Severity: mean NYHA class 3.3-3.5 in all groups

Schneiderman et al., 2000 (104); USA	Agency for Healthcare Policy and Research	RCT	Number approached: Not reported	Consecutive ICU patients at 1 US hospital referred by nurses who identified patients with potential value laden conflicts	Ethics consultations by individuals with advanced training or experience in bioethics	Usual care	Following death or discharge (2–4 weeks)	Hospital and ICU days, use of life sustaining treatments, perceptions of experiences with care and consultation from providers and family	No difference in mortality, but reduced hospital and ICU days and lower use of life sustaining treatment. Most providers and patients found the experience helpful.
		Jadad: 2	Number enrolled: 74 Number in analysis of results: 70 Age: Mean years, intervention 46 vs. control 52 Gender Race/ethnicity: intervention white 40% vs. control 43% Disease: Diverse Severity: Advanced (60% of patients in both groups died in hospital)						
Schneiderman et al., 2003 (103); USA	Agency for Healthcare Research and Quality	RCT	Number approached: 551	Consecutive ICU patients at 7 US hospitals referred by nurses who identified patients with potential value laden conflicts	Ethics consultations by individuals with advanced training or experience in bioethics	Usual care	Following death or discharge (1–2 weeks)	Hospital and ICU days, use of life sustaining treatments, perceptions of experiences with care and consultation from providers and family	No difference in mortality, but reduced hospital (–2.95 days, p=0.01) and ICU (–1.44, p=0.03) days and ventilatory support (–1.7 days, p=0.03) 87% of providers and surrogates agreed consultation was helpful in addressing conflicts.
		Jadad: 3	Number enrolled: 551 Number in analysis of results: 546 Age: mean years intervention 68 vs. control 68 Gender Race/ethnicity: intervention white 63% vs. control 63% Disease: Diverse Severity: Advanced (63% of intervention and 58% of control patients died in hospital)						

* ACEI = angiotensin-converting enzyme inhibitor; AD = advance directive; ADL = activity of daily living; CHF = congestive heart failure; ED = emergency department; HR-QOL = health-related quality of life; IADL = independent activity of daily living; ICU = intensive care unit; LOS = length of stay; LVEF = left ventricular ejection fraction; NA = not applicable; NYHA = New York Heart Association; RCT = randomized, controlled trial; UK = United Kingdom; USA = United States of America; VA = Veterans Administration.

† All descriptions of the population are for the intervention group (if overall is not described), and differences with the control are indicated where appropriate.

