

Appendix 1 Primary Non-Specialist Interventions

Author, year, study aim	Population	Setting	Intervention model characteristics	Key conclusions
Aiken <i>et al.</i> , 2006: Evaluate the outcomes of seriously ill patients that received the PhoenixCare program, with use of palliative care and coordinated care/case management	Community home-based patients with heart failure or chronic obstructive pulmonary disease; life expectancy of up to 2 years	Home-based care in Arizona	Provided by registered nurse case manager (main provider), medical director, social worker, and pastoral counselor; visit and telephone visits varied by patient acuity; time frame of intervention not specified; focused on disease management, patients and caregiver education, social and psychological support; coordination with patient's primary physician	Higher rate of living wills or advance directives in intervention patients; greater enjoyment of activities, COPD intervention patients reported lower symptoms distress
Bekelman <i>et al.</i> , 2015: Evaluate the effectiveness of a collaborative care patient-centered disease management intervention for patients with heart failure	Community home-based patients with a diagnosis of heart failure with a primary care visit within the previous 12 months	VA Medical Centers and their community centers: Denver, Co; Palo Alto, Ca; Richmond, Va; Seattle, Washington	Provided by a nurse coordinator, a primary care physician, a cardiologist, and a psychiatrist; team met weekly for discussion and recommendations, daily telemonitoring using home-based equipment; intervention focused depression screening (depression care intervention if needed), telemonitoring with patient self-care support (self-care reminders for medication, education, and dietary advice)	Improvements in patient reported heart failure functional status and QOL was improved for both the intervention and control groups; fewer death and less depression noted among the intervention group at 12 months
Chapman <i>et al.</i> , 2007: Assess the effectiveness of the use of advanced illness teams in two nursing homes on residents with advanced dementia	Community home-based patients with a diagnosis of Alzheimer's disease or some other form of dementia, need assistance in four ADLs, score of 23 or less on the Mini Mental Stat Examination	Two large nursing homes in a major metropolitan area in northwestern U. S.	Provided by physician, nurse, social worker (initial assessment), psychologist, physical and occupational therapist, and dietician; eight-week intervention, family meeting at week three and eight; focus on symptom management, psychological assessments, behavioral assessment, and meaningful activities	Greater reduction in pain scales and depression scores for the intervention patients; intervention residents experienced a significantly greater decrease in physically nonaggressive behaviors
Clark <i>et al.</i> , 2013: Multidisciplinary intervention can maintain QOL of advanced cancer patients actively receiving radiation therapy	Ambulatory clinic advanced cancer patients; scheduled to undergo radiation therapy; initial cancer diagnosis within previous 12 months, intermediate to poor prognosis (0-50% expected 5-year survival)	Urban center	Provided by psychologist or psychiatrist with physical therapy interventions, advanced practice nurse, chaplain, or social work co-led if appropriate; 6 sessions in-person (90 minutes each); 10 brief structured phone counseling sessions; discussed domains of QOL: cognitive, physical, emotional, social, and spiritual	Six session intervention was significantly more effective at maintaining overall quality of life for intervention patients at 4 weeks; telephone contacts did not have a significant effect on overall quality of life at 27 weeks
Dyar <i>et al.</i> , 2012: Evaluate QOL outcomes for advanced cancer patients who received discussion-based intervention by advanced registered nurse practitioners	Ambulatory clinic patients with a diagnosis of metastatic cancer; expected hospice referral within 12 months of enrollment by treating oncologist	Mayo Clinic, Jacksonville, FL	Provided by an oncology advanced practice nurse; initial and one month follow-up consultation; the intervention focused on discussions on hospice, completion of Five Wishes and living will form, and a holistic assessment	Emotional domain and mental quality of life improved
Engelhardt <i>et al.</i> , 2006: Examine the effectiveness of advanced illness coordinated care program for individuals with advanced illness related to the changes in coping	Ambulatory clinic patients with chronic obstructive pulmonary disease, chronic heart failure, or cancer diagnosis; COPD and HF patients had one ICU admission or two acute-care admissions within the last 6 months	Three VA medical center, home care organization, and two managed care organizations	Provided by clinic nurses, nurse practitioners, and social workers; time frame was not specified; care coordination and support with six functions: physician support, health literacy, care coordination of medical services, end-of-life planning, self-management skills, advanced care planning	Fewer concerns were reported by intervention patients with the spiritual and emotional support delivered by the providers; advanced directives were completed 6.3 months earlier for the intervention group patients
Farquhar <i>et al.</i> , 2014: Evaluate the outcomes with the use of the Breathlessness Intervention Service for advanced cancer patients	Community home-based advanced cancer patients with breathing difficulty despite appropriate interventions; caregivers were invited to participate	Location not specified	Provided by occupational therapists (lead), palliative care medical consultant, physical therapist, and administrator; variable intervention time depending upon disease trajectory; weekly team meetings; comprehensive initial assessment with patient and caregivers; nonpharmacological interventions teaching; collaboration with other healthcare providers as needed; individually tailored interventions provided by appropriate discipline	Breathlessness intervention reduced patient distress related to breathlessness significantly more than the control group
Farquhar <i>et al.</i> , 2016: Evaluate the outcomes with the use of the Breathlessness Intervention Service for advanced non-malignant disease patients	Community home-based advanced non-malignant disease patients with breathing difficulty despite appropriate interventions; caregivers were invited to participate	Location not specified	Provided by occupational therapists (lead), palliative care medical consultant, physical therapist, and administrator; variable intervention time depending upon disease trajectory; weekly team meetings; comprehensive initial assessment with patient and caregivers; nonpharmacological interventions teaching; collaboration with other healthcare providers as needed; individually tailored interventions provided by appropriate discipline	Patients in the intervention group achieved a greater reduction in their distress due to breathlessness compared to the control group
Given <i>et al.</i> , 2002: Evaluate the effects from a 20-week supportive nursing intervention for patients undergoing an initial course of chemotherapy	Ambulatory clinic patients within 56 days of initiating their first cycle of chemotherapy following a new cancer diagnosis; at least 40 years old with colon, breast, lung cancer, non-Hodgkin's lymphoma, or other solid tumors	Four outpatient cancer centers	Provided by an oncology nurse; ten contacts with intervention nurse (six in person and four by telephone) occurring at two week intervals over a 20-week period; evidence-based practice intervention strategies that focused on symptom assessment and problem resolution	Intervention patients reported 3.3 symptoms compared to 4.4 symptoms in the control group at 20 weeks
Lowther <i>et al.</i> , 2015: Assess the sustainability and effectiveness of palliative care integration in an existing HIV clinic	Ambulatory clinic patients that were HIV positive with symptom and pain burdens present	Community Hospital in Kenya; outpatient HIV clinics	Provided by HIV clinic nurses that completed training in palliative care prior to the intervention; participants met with the nurse at baseline, at 2 weeks, at 4 weeks, and subsequent monthly appointments for a total of 6 appointments; holistic assessment was completed and a plan of care developed	Pain improved for both groups
McCorkle <i>et al.</i> , 1989: Assess the effects of three home nursing care treatment regimens on the psychological well-being of patients with progressive lung cancer	Community home-based patients with lung cancer, including squamous cell, adenocarcinoma small cell, or giant cell cancer; met Medicare criterion of home bound; classified as stage II lung cancer or higher	King County, Washington	Provided by masters prepared nurses (specialized oncology home care) or registered nurses, physical therapists, home health aides, medical social work, occupational therapist, and a speech pathologist (standard home care program); unspecified time frame; specialized oncology home care: a standard home care program: other disciplines were available upon request; standard home care program: provided by interdisciplinary team of health professionals; the focus was on treatment and case management plans, need for consultation, coordination with healthcare providers, family and community resources, and discharge planning (from the service)	The control group experienced symptom distress 6 weeks sooner than the two intervention groups; the specialized oncology home care group had fewer hospitalizations than the two other groups
McCorkle <i>et al.</i> , 2015: Evaluate the effects of a multidisciplinary intervention by advanced practice nurses for newly diagnosed cancer patient outcomes	Ambulatory clinic patients with a late-stage cancer diagnosis within 100 days; postsurgical or post biopsy with additional treatment recommended; one self-reported chronic condition; 21 years or older	Northeastern Comprehensive Cancer Care	Provided by advanced practice nurses, physician assistants, and social workers; weekly phone and in-person contacts (five clinic visits and five telephone calls); ten-week intervention; standardized intervention delivered by different members of the multidisciplinary team; interventions included: symptom management, executing complex procedures, education for patient and caregivers, collaboration with other healthcare providers	Physical and emotional symptoms remained stable or significantly improved from baseline for both the intervention and control group
Northhouse <i>et al.</i> , 2005: Evaluate if patients with advanced breast cancer and their family caregivers will report favorable psychosocial outcomes after participating in a family-based intervention	Community home-care patients with a confirmed diagnosis of recurrent breast cancer within the previous month or progression of breast cancer within the previous month; life expectancy of at least 6 months	Four large oncology centers in the Midwest U. S.	Provided by masters prepared nurses; monthly home visits for 3 months; two prearranged, follow-up phone calls; FOCUS program: five content areas; family involvement, optimistic attitude, coping effectiveness, uncertainty reduction, symptom assessment; masters prepared nurse conducted	Significant decrease in their negative appraisal at three months for intervention patients; significant decrease in their hopelessness at three months for intervention patients
Northhouse <i>et al.</i> , 2007: Determine whether a family-based intervention could improve appraisal variables, coping resources, symptoms distress, and QOL in men with prostate cancer and their spouses	Community home-based patients with a diagnosis of prostate cancer with a prognosis of 12 months or greater; patient-spouse dyads	Home and telephonic visits in U. S.	Provided by masters prepared nurses; three home visits and two prearranged, follow-up phone calls over 4 months; FOCUS program: five content areas; family involvement, optimistic attitude, coping effectiveness, uncertainty reduction, symptom assessment	Intervention group reported less uncertainty about their illness and more communication about their illness at 4 months
Northhouse <i>et al.</i> , 2013: Evaluate a palliative care intervention (FOCUS) on change in QOL for patients with advanced and their caregivers	Community home-based patients with advanced breast, colorectal, lung, or prostate cancer and were within a 6-month time frame of having a new diagnosis, progression of their advanced disease, or a change in treatment for the cancer; life expectancy of greater than 6 months	Oncology centers in the Midwest U. S.	Provided by masters prepared nurses; three home visits and two prearranged, follow-up phone calls over 4 months; FOCUS program: five content areas; family involvement, optimistic attitude, coping effectiveness, uncertainty reduction, symptom assessment	Improvements in dyads social quality of life and coping
Rummans <i>et al.</i> , 2006: Evaluate the feasibility and effectiveness of a structured multidisciplinary educational intervention that focused on maintaining overall quality of life for patients with advanced cancer	Ambulatory clinic patients with advanced cancer (brain, head and neck, lung, ovarian, GI); diagnosis in the last 12 months and survival time of at least 6 months; undergoing or scheduled to undergo radiation therapy	Mayo Clinic	Provided by psychiatrist or psychologist and physical therapist. Educational sessions co-led by advanced practice nurse, social worker, or chaplain if appropriate; patients attended eight intervention sessions over three weeks, telephone follow-up every two weeks post intervention until study completion; educational sessions with a focus on managing QOL included physical therapy training for patients and holistic assessment	Overall quality of life at week 4 was maintained, while quality of life significantly decreased for the control group
Steel <i>et al.</i> , 2016: Examine the efficacy of a collaborative care intervention for advanced cancer patients	Community home-based patients with hepatocellular, cholangiocarcinoma, gallbladder, neuroendocrine, and pancreatic carcinoma or other primary cancer that have metastasized to the liver	Urban cancer center	Provided by masters or PhD prepared therapists (care coordinator); telephone contact with care coordinator every two weeks and face-to-face contact in the outpatient oncology department and/or hospital every 2 months; increased contact if symptoms were severe; web-based collaborative care intervention; access to psycho-social website and care coordinator	Reduced depressive symptoms, reduction in pain, improvements in fatigue and improvement of overall quality of life occurred for the intervention group at six

Appendix 2 Specialist provider interventions

Study	Population	Setting	Intervention model characteristics	Key conclusions
Bakitas <i>et al.</i> , 2009: Evaluate the effectiveness of a nurse-led intervention on QOL, symptom intensity, mood, and resources in patients with advanced cancer	Community home-based patients with GI, lung, or breast cancer, newly diagnosed with prognosis of 1 year	Rural comprehensive cancer center and VA medical center	Provided by advanced practice nurses with palliative care specialist experience; four educational sessions and monthly follow-up until death or study completion; multicomponent, psychoeducational intervention (Project ENABLE); telephonic intervention; modules included problem solving, community and social support, symptom management, advanced care planning and unfinished business	Improved quality of life, lower symptom intensity for intervention group; lower depressed mood for intervention participants
Bakitas <i>et al.</i> , 2015: Effectiveness of early vs. delayed palliative care on QOL, symptom impact, mood, one-year survival, and resource use	Community home-based patients with advanced-stage cancer; solid tumor or hematologic malignant with a prognosis of 6 to 24 months	Urban comprehensive cancer center, VA medical center, community outreach clinics	Provided by advanced practice nurses with palliative care specialist experience; six weekly educational sessions and monthly follow-up until death or study completion; multicomponent, psychoeducational intervention (Project ENABLE); telephonic intervention; modules included problem solving, symptom management, self-care, coordinator of local resources, communication, decision making, advanced care planning, and life review	No significant differences in QOL, symptom impact, and mood; 1-year survival was significantly different with the early intervention group having a 15% survival advantage
Greonvold <i>et al.</i> , 2017: Investigate the effect of early specialist palliative care among advanced cancer patients	Ambulatory clinic patients with stage IV cancer or cancer of the CNS grade III/IV	Six Danish Specialist Palliative Care (SPC) Centers	Provided by palliative care physician and palliative nurse specialist with additional services as needed (social worker, chaplain, volunteer, physical therapist, and pharmacists); the number and frequency of visits was determined by patients' needs; interventions were based upon patients individual needs; use of guidelines and protocols that were already used	Changes in seven QLQ-C30 scales (physical function, role function, emotional function, nausea/vomiting, pain, dyspnea, and lack of appetite)
Rabow <i>et al.</i> , 2004: Evaluate the effects of an interdisciplinary team palliative care service that offered consultation and direct services to outpatients, their families, and their primary care provider	Ambulatory clinic patients with a diagnosis of cancer, advanced chronic obstructive pulmonary disease, and advanced heart failure; life expectancy of one to 5 years; not yet appropriate for hospice services	70-physician general medicine practice of a tertiary care, university medical center; urban setting	Provided by palliative care team (physicians, nurse, social worker, chaplain, pharmacist, psychologist, art therapist, volunteer coordinator) with coordination with the primary care provider; weekly telephone contacts and monthly visits; includes consultation, case management, volunteer and group support, chaplaincy consultation, and artistic expression; recommendations to primary care physician for physical symptoms, advanced care planning, family and caregiver support was offered, monthly support groups for patients and their families	Intervention patients showed improvement in dyspnea, sleep, anxiety, spiritual well-being, and increased funeral arrangements; difficulty with primary care physicians implementing all recommendations
Rogers <i>et al.</i> , 2017: Evaluate whether an interdisciplinary palliative care intervention in addition to evidence-based heart failure care will improve heart failure specific quality of life and health related quality of life	Hospitalized and recently discharged patients who were at high risk for readmission	Single-center, coordinated by certified palliative care nurse practitioner and board-certified physician	Provided by a palliative care certified advanced practice nurse in collaboration with a board-certified palliative care physician; collaboration with cardiology team; 6-month intervention period with ambulatory clinic assessments; telephone contact every three months following the intervention; focused on physical symptoms, psychosocial, spiritual, and advanced care planning; setting goals of care	Heart failure specific quality of life, general palliative care specific improved; at 6 months for intervention group
Temel <i>et al.</i> , 2010: Evaluate the effectiveness of early palliative care interventions on patient reported outcomes and end-of-life care among newly diagnosed non-small-cell lung cancer patients	Ambulatory clinic patients with confirmed metastatic non-small-cell lung cancer and were diagnosed within the previous 8 weeks; not currently receiving palliative care services	Urban Teaching Hospital	Provided by a palliative care team (board-certified physicians and advanced practice nurses) combined with routine oncologic care; the team met with the patient within 3 weeks after study enrollment and at least monthly until death; services included symptom management, planning goals of care, assist in treatment decision discussions, coordinating care as needed	Quality of life was significantly higher and depression was significantly lower at 12 weeks; 54% of control group patients sought aggressive care at end of life compared to 33% of intervention patients
Temel <i>et al.</i> , 2017: Evaluate the impact of early integrated palliative care for patients newly diagnosed with lung and GI cancers	Ambulatory clinic patients within 8 weeks of diagnosis of incurable lung or non-colorectal GI cancer; n=300 (n=175 intervention group, n=175 control group)	Massachusetts General Hospital; patient met with a member of the outpatient PC team within 4 weeks of enrollment and at least once per month	Provided by palliative care physician and nurse practitioners; minimum visits of once per month until death; follow-up by telephone of needed; inpatient team assessment if patient admitted; followed the National Consensus Project for Quality Care for patient visits	Palliative care visits for intervention patients had 6.54 days vs. control patients 0.89 days; intervention participants had higher quality of life and lower depression symptoms at 2 and 4 months; double the number of intervention group participants had discussed EOL wishes with healthcare provider by 24 weeks
Wallen <i>et al.</i> , 2012: Compare outcomes and processes of hospice-based early palliative care	Hospitalized advanced cancer patients undergoing surgical procedure	National Institutes of Health Clinical Center	Provided by palliative care team (physicians, nurse practitioners, nurse thanatologist, and physician fellow) in collaboration with primary care providers; initial assessment in hospital; outpatient follow-up for 12 months; services include comprehensive pain and symptom assessment as well as spiritual and emotional aspects	Quantitative: at 12 months, the intervention groups performed better on pain management compared to the control group; Qualitative: intervention group felt supported and reassured with the palliative care intervention
Zimmermann <i>et al.</i> , 2014: Evaluate the use of a palliative care team and the association of improved patient QOL, symptom management, and satisfaction with care with decreased difficulty with clinician interactions	Ambulatory clinic advanced cancer (lung, GI, GU, breast, GYN) with a prognosis of 6-24 months	Toronto, ON, Canada	Provided by a palliative care team (specialist physician and nurse) combined with routine oncologic care; and home services, within 1 month of recruitment, telephone contact by palliative care nurse within 1 week of consultation and as needed, monthly outpatient palliative care follow-up visits, and a 24 hours' on-call service for telephone management; holistic assessment of symptoms, psychological distress, social support	Spiritual quality of life and symptoms severity was significantly improved for intervention group at 4 months

Appendix 3 Hybrid specialist-primary interventions

Study	Population	Setting	Intervention model characteristics	Key conclusions
Ahronheim <i>et al.</i> , 2000: Evaluate if a palliative care intervention would enhance comfort for hospitalized advanced stage dementia patients	Hospitalized advanced dementia patients with an acute illness; Functional Assessment Staging Tool (FAST) of 6d or greater; stable baseline neurological deficit for at least 1 month prior to enrollment	Urban hospital setting	Provided by a palliative care team (palliative care specialized nurse and physician) as consultation services for the primary healthcare team; daily visits by palliative care team member excluding weekends; discussion of disease management with primary healthcare team; met with patients family caregivers and other surrogates; discharge planning	Intervention patients were more likely to have a palliative care plan adopted by discharge
Brannstrom <i>et al.</i> , 2014: Evaluate the use of integrated palliative advanced home care and heart failure care related to patient outcomes of health-related quality of life and hospitalizations	Community home-based patients with a confirmed diagnosis of heart failure with NYHA functional classes III-IV symptoms	Sweden	Provided by palliative care team (palliative care physician and nurse), heart failure team (cardiologist and specialist nurse), and physical and occupational therapists; intervention lasted 6 months, visits and phone call varied for each participant; team met bi-weekly; home care visits and phone call following a six Ss model that focuses on self-image, self-determination, social relationships, symptom control, synthesis, and surrender; known as the PREFER model	Health related quality of life and NYHA functional class symptoms were significantly improved at 6 months; hospitalizations was significantly lower for the intervention group at 6 months
Cheung <i>et al.</i> , 2010: To determine if a palliative care team support can improve patient, family, and staff satisfaction in a ICU setting	Hospitalized patients with a terminal or pre-terminal condition; treating intensivist believed that treatment should not be continued	14-bed urban ICU	Provided by a palliative care team (palliative care physician, specialized nurse, resident, registrar) as consultation services for the primary healthcare team; daily rounds; palliative care consultation and inpatient management; no additional detail on the intervention	No significant difference in ICU usage, hospital length of stay, or satisfaction scores
Edmonds <i>et al.</i> , 2010: Evaluate a partnership service between neurology and palliative care to assist patients severely affected by MS	Ambulatory clinic patients with a diagnosis of multiple sclerosis; score of greater than eight on the Expanded Disability Status Scale or referred based on need; included caregivers if available	Southeast London	Provided by palliative medicine consultant, clinical nurse specialists, and administrator; joint intervention with neurology; initial visit with follow-up by telephone calls or visits based on clinical need; 12-week intervention; weekly team meetings; initial assessment by a member of the palliative care team to identify main issues in symptoms, psychosocial concerns, or social issues (ambulatory clinic, but could occur a location preferred by the patient); action plan was developed and communicated with other healthcare providers; referral to existing community palliative care if needed after the 12-week intervention	The intervention group had improvements in five symptoms: pain, nausea, vomiting, mouth problems, and problems sleeping when compared to the control group at 4, 6, and 12 weeks
Gade <i>et al.</i> , 2008: Measure the impact of interdisciplinary palliative care services on patient satisfaction, improved symptom control, and cost of care post-hospital discharge for 6 months	Hospitalized patients with at least one life-limiting diagnosis, and the attending physician indicated they "would not be surprised if the patient died within 1 year"	Multisite; Denver, Co., San Francisco, Ca, Portland	Provided by palliative care physician and palliative care nurse, hospital social worker and chaplain; one time consultation with visits as needed; after hours call service; assessed symptom management needs, psychosocial and spiritual support, end-of-life planning, and discharge planning, communication with the primary care physicians	Intervention group reported higher satisfaction scores; total mean hospital costs were lower per patient for the intervention patients
Grudzen <i>et al.</i> , 2016: Evaluate QOL, depression, healthcare utilization, and survival of patients with advanced cancer when an ED-initiated palliative care consultation was initiated	Hospitalized patients with a diagnosis of advanced cancer patients either admitted to the hospital or staying for observation	Mount Sinai Hospital	Provided by a palliative care team (physician, nurse practitioner, social worker, and chaplain) with collaboration with primary healthcare team; daily visit if admitted to hospital; focused on symptom assessment and treatment, goals of care and advanced planning conversations, and transition planning; see patient daily; discharge planning	Intervention group had significantly higher quality of life
Hanks <i>et al.</i> , 2002: Assess the effectiveness of a hospital based palliative care team on physical symptoms and health-related QOL	Hospitalized patients with a referral to palliative care; all diagnostic groups accepted	UK hospital	Provided by palliative care team member (physician or nurse) with additional services from psychologist, social worker, or chaplain as needed and collaboration with primary healthcare team; visited weekly or as needed; initial assessment and recommendations, weekly team meetings; discharge planning	Improvements in symptom severity, mood, emotional problems, health-related quality of life were sustained for 4 weeks
Higginson <i>et al.</i> , 2014: Evaluate the intervention for improved breathlessness mastery at six weeks	Community home-based patients with a diagnosis of COPD, Cancer (lung, breast, colon, prostate, hematologic, urethral), interstitial lung disease, CHF	United Kingdom	Provided by palliative care clinician and respiratory therapists (outpatient clinic appointment, physical and occupational therapists (home visit), and final clinic visit with a palliative care clinician; initial clinic visit, one home visit in 2 to 3 weeks, final clinic visit at 4 weeks; palliative care assessment and management; breathlessness pack, home assessment after 2 to 3 weeks, final palliative care assessment and recommendations	Primary: breathlessness mastery in 6 weeks; 16% improvement of breathlessness mastery over the control group at 6 weeks
Hopp <i>et al.</i> , 2016: Evaluate whether initiation of hospital-based palliative care consultation for patients with advanced heart failure admitted with an acute decompensation was associated with election of comfort measures	Hospitalized patients with a diagnosis of heart failure, a one year mortality risk of greater than or equal to 33%, and NYHA functional class III or IV	Urban hospitals in Michigan	Provided by a palliative care physician and advanced practice nurse with the availability of a social worker and chaplain if needed; daily visits, excluding weekends; assessment of distressing symptoms, goals of care discussion, advance care planning, code status discussions, desired post-treatment residential setting; discharge planning	Intervention did not show significant difference in election of comfort measures; more robust interventions may be needed
Radwney <i>et al.</i> , 2014: Determine feasibility of an in-home geriatrics/palliative care interdisciplinary intervention on healthcare	Community home-based New Medicaid PASSPORT (Medicaid waiver) enrollees greater than 60 years old who passed a mental status screening; diagnosis of heart failure, chronic obstructive pulmonary disease on home O2, advanced diabetes, end-stage liver disease or cirrhosis, cancer, renal disease with dialysis, advanced Parkinson's disease, and pulmonary hypertension	Ohio	Provided by palliative care medical specialist, palliative care nurse, Care manager, geriatrician, social worker, spiritual advisor, and pharmacist; two in-home visits within 2 weeks of each other and monthly phone follow-up for 12 months; Promoting Effective Advance Care for Elders (PEACE): intervention delivered by Area Agency of Aging (AAA) care managers; initial home visit by palliative care nurse to assess patient and goals; follow-up with the primary care provider if goals of care are not in line with prognosis; second home visit by palliative care nurse to discuss goals of care; individualized evidence-based care plan developed with interdisciplinary team; focus includes: symptom and disease education, caregiver education, identifying community resources, advanced care planning, healthcare provider discussions/communication; 24-hour call service available; monthly follow-up with patient and caregiver	Completion of durable power of attorney was increased in the intervention group; there were fewer patients with hospital visits and nursing facility placements in the intervention group
Sidebottom <i>et al.</i> , 2015: Assess if inpatient palliative care for heart failure patients is associated with improvements in symptom burden, depressive symptoms, quality of life, and use of services	Hospitalized patients with a diagnosis of heart failure	Abbott Northwestern Hospital, Minneapolis, Michigan	Provided by board-certified physicians, clinical nurse specialists, board-certified advanced practice nurse, social worker, and chaplain; initial consult and additional visits as needed; assessment of symptom burden, emotional, spiritual, and psychosocial aspects of care, coordination of care, recommendations in current and future treatment, discharge planning	Quality of life improvement in the intervention group at 3 months; significant improvement in shortness of breath, anxiety, and tiredness at both 1 and 3 months for the intervention group; significant improvement in pain at 3 months for the intervention group
Wong <i>et al.</i> , 2016: Examine the effects of home-based transitional palliative care for patients with end stage heart failure after hospital discharge	Community home-based patients with a diagnosis of end stage heart failure who had been recently discharge home and referred for palliative care services; NYHA Functional class of III or IV; recurrent hospital admissions; physical and psychological symptoms despite optimal therapy	Three hospitals in Hong Kong	Provided by a qualified palliative care nurse case managers and trained nursing students; first four weeks consisted on two phone calls and one home visit; monthly home visits and telephone follow-up until the end of 12 weeks; transitional Care Palliative-ESHF programme; focus: case management, discussion of end-of-life issues, multidisciplinary approach, staff development for community, discussion of treatment options, integrated model of care; 4Cs: comprehensiveness, continuity, coordination, and collaboration	Intervention group had a lower readmission rate 12 weeks