Appendix D: Clinical evidence tables

Study	Evans 1993[16]
Study type	RCT (Patient randomised; Parallel).
Number of studies (number of participants)	(n=835).
Countries and setting	Conducted in USA; setting: Department of Veteran Affairs medical centre.
Line of therapy	Not applicable.
Duration of study	Follow up (post intervention): 9 months.
Method of assessment of guideline condition	Adequate method of assessment/diagnosis.
Stratum	Overall.
Subgroup analysis within study	Not applicable.
Inclusion criteria	Risk-screening index score ≥ 3, based on a validated screening tool by Evans et al., 1988. The index evaluates the presence of 8 mutually exclusive variables, which were useful in discriminating outcome: 1) 2 or more chronic conditions; 2) poor mental status; 3) psychiatric comorbidity; 4) previous admission; 5) age 70 years or older; 6) lives alone or in a nursing home; 7) dependent ambulation; 8) being unmarried. Scores were in the range of 0-8, with a higher score indicating a higher risk of adverse hospital outcome.
Exclusion criteria	Low risk patients, based on the scale above (score lower than 3).
Recruitment/selection of patients	Patients were randomised after risk- screening.
Age, gender and ethnicity	Age - Other: ≥70 years: early discharge group: 184/417 (44%) male; usual care group: 198/418 (47%). Gender (M:F): early discharge group: 401/417 (96%) male; usual care group: 393/418 (94%) male. Ethnicity: not reported.
Further population details	1. Frail Elderly: Not applicable/Not stated/Unclear 2. Multimorbidity: multimorbidity (75% had 2 or more chronic medical conditions) 3. People with mental illness: mental illness (psychiatric co-morbidity: early discharge group: 32%, usual care group: 28%).
Extra comments	Patients admitted to medical, neurologic or surgical services at a Department of Veteran Affairs medical centre.
Indirectness of population	Serious indirectness; patients included surgical and neurological as well as medical.
Interventions	(n=417) Intervention 1: Discharge planning - discharge planning as defined by study. Intervention was initiated on day 3 on the hospital. On the second day after admission, the patient's chart was reviewed and informed consent obtained. The patients were immediately referred to a social worker and the discharge planning protocol initiated. The protocol included assessment of the following areas: marital relationship, support systems, living situation, finances and area of need for patient discharge planning. Information was collected by 1) reviewing the chart; 2)

Study	Evans 1993[16]
	consulting the physician and nurse; and 3) interviewing the patient and family. Plans were implemented with measurable goals and results were charted into the medical record. Duration: 9 months. Concurrent medication/care: to examine possible sources of treatment effectiveness, the types of service received by each group were determined. They included referrals to community agencies, nursing home placements, counselling, health education, planning home health care, financial planning, living arrangements, environmental modifications and help with medical follow-up. Patients were considered ready for discharge when orders for such were written by the physician in the medical record. Further details: 1. Discharge co-ordinator: Not applicable/Not stated/Unclear 2. Early versus late: early 3. MDT versus no MDT: Not applicable/Not stated/Unclear. (n=418) Intervention 2: Usual care - as defined by study. Discharge planning only if there was a written physician request. This was an average of day 9, or not at all. Duration: 9 months. Concurrent medication/care: to examine possible sources of treatment effectiveness, the types of service received by each group were determined. They included referrals to community agencies, nursing home placements, counselling, health education, planning home health care, financial planning, living arrangements, environmental modifications and help with medical follow-up. Patients were considered ready for discharge when orders for such were written by the physician in the medical record.
Funding	Academic or government funding (Department of Veterans Affairs Health Services Research and Development Program, project IIR#87-132).
RESULTS (NUMBERS ANALYSED) AND RISK OF BIAS FOR COMPARISON: DISCHARGE PLANNING AS DEFINED BY STUDY versus USUAL CARE. Protocol outcome 1: Mortality. - Actual outcome: Mortality at 9 months; Group 1: 66/417, Group 2: 67/418; Risk of bias: All domain - Low, Selection - Low, Blinding - Low, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - Low, Crossover - Low; Indirectness of outcome: No indirectness Protocol outcome 2: Length of stay. - Actual outcome: Length of stay at 9 months; Group 1: mean 11.9 (SD 12.7); n=417, Group 2: mean 12.5 (SD 13.5); n=418; Risk of bias: All domain - High, Selection - Low, Blinding - High, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - Low, Crossover - Low; Indirectness of outcome: No indirectness Protocol outcome 3: Readmission. - Actual outcome: Readmission rate at 9 months; Group 1: 229/417, Group 2: 254/418; Risk of bias: All domain - Low, Selection - Low, Blinding - Low, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - Low, Crossover - Low; Indirectness of outcome: No indirectness	
Protocol outcomes not reported by the study	Quality of life; Avoidable adverse events; Patient and/or carer satisfaction; Delayed Transfers of care; Staff satisfaction.

Study (subsidiary papers)	Goldman 2014[23] (Chan 2015[8])
Study type	RCT (Patient randomised; Parallel).
Number of studies (number of participants)	1 (n=700).
Countries and setting	Conducted in USA; setting: internal or family medicine, cardiology, or neurology departments at San Francisco General Hospital and Trauma Centre.
Line of therapy	Not applicable.
Duration of study	Intervention + follow up.
Method of assessment of guideline condition	Adequate method of assessment/diagnosis.
Stratum	Overall: n/a
Subgroup analysis within study	Not applicable.
Inclusion criteria	English, Spanish or Chinese speaking, aged 55 or older.
Exclusion criteria	Transferred from an outside hospital, admitted for a planned hospitalisation, likely to be discharged to an institutional setting, unable to consent due to severe cognitive impairment, mental illness or delirium, metastatic cancer, unable to participate in telephone follow up due to aphasia, severe hearing impairment or lack or access to a telephone.
Recruitment/selection of patients	Study staff received a list from the hospital's electronic health record system of patients admitted in the previous 24 hours, after screening for eligibility, staff reviewed the exclusion criteria with the patient's attending physician, if the physician agreed, patients were approached for consent.
Age, gender and ethnicity	Age - Mean (SD): 66.2 (9). Gender (M:F): 396:304. Ethnicity: 171 black, 137 Hispanic, 133 white, 33 other, 171 Chinese, 41 Filipino, 13 other Asian.
Further population details	1. Frail Elderly: Not applicable/Not stated/Unclear 2. Multimorbidity: Not applicable/Not stated/Unclear 3. People with mental illness: Not applicable/Not stated/Unclear.
Indirectness of population	No indirectness: n/a.
Interventions	(n=347) Intervention 1: Discharge planning - discharge planning as defined by study. Nurse-led in hospital discharge planning - disease-specific patient education on day of enrolment and within 24 hours of discharge, after hospital care plan booklet given to patients including diagnoses, primary care and pharmacy contact information and upcoming appointments, follow up telephone calls (day 1 to 3 and 6 to 10) providing education, assessing medication/treatment adherence, resolving barriers to follow up appointments and discussing discharge plan. Nurses worked with pharmacies, adjusted medications and referred patients to primary care provider, urgent health clinic or ED when necessary. Duration: during admission and 10 days post discharge. Concurrent medication/care: not reported. Further details: 1. Discharge co-ordinator: nurse 2. Early versus late: early 3. MDT versus no MDT: Not applicable/Not

Study (subsidiary papers)	Goldman 2014[23] (Chan 2015[8])
	stated/Unclear. (n=353) Intervention 2: Usual care - as defined by study. Bedside nurse's review of the discharge instructions, 10 day medication supply and assistance of social worker if required, admitting team responsible for transmitting the discharge summary to the patient's primary care provider. Duration: during admission. Concurrent medication/care: not reported. Further details: 1. Discharge co-ordinator: Not applicable/Not stated/Unclear 2. Early versus late: Not applicable/Not stated/Unclear 3. MDT versus no MDT: Not applicable/Not stated/Unclear.
Funding	Other (Gordon and Betty Moore Foundation).
RESULTS (NUMBERS ANALYSED) AND RISK OF BIAS FOR COMPARISON: DISCHARGE PLANNING AS DEFINED BY STUDY versus AS DEFINED BY STUDY. Protocol outcome 1: Mortality. - Actual outcome: mortality at 180 days; Group 1: 26/347, Group 2: 17/353; Risk of bias: All domain - Low, Selection - Low, Blinding - Low, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - Low, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA Protocol outcome 2: Patient and/or carer satisfaction. - Actual outcome: Care transitions measure at 30 days; Group 1: 242/301, Group 2: 247/315; Risk of bias: All domain - High, Selection - Low, Blinding - High, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - High, Crossover - Low; Indirectness of outcome: Serious indirectness, Comments: NA Protocol outcome 3: Readmission. - Actual outcome: readmissions at 30 days; HR 1.17 (95%CI 0.79 to 1.74); Risk of bias: All domain - High, Selection - Low, Blinding - High, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - Low, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA	
Protocol outcomes not reported by the study	Quality of life; Avoidable adverse effects; Length of stay/Time to discharge; Delayed Transfers of care; Staff satisfaction.

Study	Jack 2009[32]
Study type	RCT (Patient randomised; Parallel).
Number of studies (number of participants)	1 (n=749).
Countries and setting	Conducted in USA; setting: medical teaching service of Boston Medical Center.
Line of therapy	Not applicable.
Duration of study	Intervention + follow up.
Method of assessment of guideline condition	Adequate method of assessment/diagnosis.

Study	**Jack 2009[32]**
Stratum	Overall: n/a.
Subgroup analysis within study	Not applicable.
Inclusion criteria	English speaking, at least 18 years of age, have a telephone, able to comprehend study details and the consent process and plan for discharge to a U.S community.
Exclusion criteria	Admitted from a skilled nursing facility/other hospital, transferred to a different hospital before enrolment, planned hospitalisation, hospital precautions/suicide watch and deaf/blind.
Recruitment/selection of patients	Each morning, a list of admitted patients were reviewed for initial eligibility, last names were ranked by using a random number sequence to determine the order in which to approach patients for enrolment and research assistant approached each patient and further determined eligibility.
Age, gender and ethnicity	Age - Mean (SD): intervention: 50.1 (15.1), control: 49.6 (15.3). Gender (M:F): 371:378. Ethnicity: 209 white non-Hispanic, 388 black non-Hispanic, 74 Hispanic, 74 other race or mixed race.
Further population details	1. Frail Elderly: Not applicable/Not stated/Unclear 2. Multimorbidity: Not applicable/Not stated/Unclear 3. People with mental illness: Not applicable/Not stated/Unclear/
Indirectness of population	No indirectness: n/a.
Interventions	(n=373) Intervention 1: Discharge planning - discharge planning as defined by study. Reengineered discharge intervention - patient education, appointments for post-discharge follow up, discussion of in-hospital tests with patient, organisation of post-discharge services, confirmation of medication plan, reconciliation of discharge plan with national guidelines, review of appropriate steps in an emergency, transmission of discharge summary to physicians and services, assessment of patient understanding, provision of a written discharge plan, telephone call from the pharmacist, initiated at admission by nurse discharge advocates. Duration: during admission and telephone calls at least 3 times post-discharge. Concurrent medication/care: not reported. Further details: 1. Discharge co-ordinator: nurse (nurse discharge advocate). 2. Early versus late: early (beginning at admission). 3. MDT versus no MDT: Not applicable/Not stated/Unclear. (n=376) Intervention 2: Usual care - as defined by study. No further intervention. Duration: during admission. Concurrent medication/care: not reported. Further details: 1. Discharge co-ordinator: Not applicable/Not stated/Unclear 2. Early versus late: Not applicable/Not stated/Unclear 3. MDT versus no MDT: Not applicable/Not stated/Unclear.
Funding	Academic or government funding (Agency for Healthcare Research and Quality grants and National Heart, Lung and Blood Institute, National Institutes of Health)
RESULTS (NUMBERS ANALYSED) AND RISK OF BIAS FOR COMPARISON: DISCHARGE PLANNING AS DEFINED BY STUDY versus AS DEFINED BY STUDY.	

Study	Jack 2009[32]
Protocol outcome 1: Patient and/or carer satisfaction. - Actual outcome: How prepared were you to leave the hospital? (Prepared or very prepared) at 30 days; Group 1: 197/307, Group 2: 163/308; Risk of bias: All domain - High, Selection - Low, Blinding - High, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - High, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA; Group 1 Number missing: 66; Group 2 Number missing: 68 Protocol outcome 2: Readmission. - Actual outcome: Readmissions at 30 days; Group 1: 55/370, Group 2: 76/368; Risk of bias: All domain - High, Selection - Low, Blinding - High, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - High, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA; Group 1 Number missing: 3, Reason: 2 participant request, 1 died before discharge; Group 2 Number missing: 8, Reason: 5 participant request, 2 died before discharge, 1 previously enrolled	
Protocol outcomes not reported by the study	Quality of life; Mortality; Avoidable adverse effects; Length of stay/Time to discharge; Delayed Transfers of care; Staff satisfaction.

Study	Jennings 2015[33]
Study type	RCT (Patient randomised; Parallel).
Number of studies (number of participants)	1 (n=172).
Countries and setting	Conducted in USA; setting: single hospital, USA.
Line of therapy	Not applicable.
Duration of study	Intervention + follow up.
Method of assessment of guideline condition	Adequate method of assessment/diagnosis.
Stratum	Overall: n/a.
Subgroup analysis within study	Not applicable.
Inclusion criteria	Diagnosis of COPD with presence of an acute exacerbation, >40 years of age, current ex-smoker with a history equivalent to at least 20 pack years.
Exclusion criteria	Medical history of asthma, interstitial lung disease, bronchiectasis, presence of airway hardware, lung cancer, other cancer associated with a life expectance of <1 year, any cancer where the patient received active chemotherapy or radiation treatment, active substance abuse, neuromuscular disorders, affecting the respiratory system, language barriers, residence in a nursing home, ICU stay during admission and significant delirium or dementia.
Recruitment/selection of patients	Not reported.

Study	Jennings 2015[33]
Age, gender and ethnicity	Age - Mean (SD): intervention 64.9 (10.9), control 64.4 (10.5). Gender (M:F): 77:95. Ethnicity: 42 White,129 Black, 1 Asian.
Further population details	1. Frail Elderly: Not applicable/Not stated/Unclear 2. Multimorbidity: Not applicable/Not stated/Unclear 3. People with mental illness: Not applicable/Not stated/Unclear.
Indirectness of population	No indirectness: n/a.
Interventions	(n=93) Intervention 1: Discharge planning - discharge planning as defined by study. Discharge bundle - 60 minute visit by a member of the research team 24 hours prior to anticipated discharge day, during which acute exacerbation of COPD risks were assessed (smoking cessation, gastroesophageal reflux disease assessed by questionnaire and given lifestyle advice, anxiety or depressive symptoms referred to outpatient services, patient education on inhaler use), contacted by telephone 48 hours after discharge to reinforce items in bundle. Duration: 24 hours before discharge to 48 hours post discharge. Concurrent medication/care: same as control group. Further details: 1. Discharge co-ordinator: Not applicable/Not stated/Unclear 2. Early versus late: late 3. MDT versus no MDT: Not applicable/Not stated/Unclear. (n=79) Intervention 2: Usual care - as defined by study. Routine discharge process - spirometry 1 to 2 days prior to discharge, systemic steroids, antibiotics and inhaler therapy at the primary team's discretion, education from nursing staff regarding inhaler use. Duration: during admission. Concurrent medication/care: not reported. Further details: 1. Discharge co-ordinator: Not applicable/Not stated/Unclear 2. Early versus late: Not applicable/Not stated/Unclear 3. MDT versus no MDT: Not applicable/Not stated/Unclear.
Funding	Academic or government funding (Breech Chair for Health Care Quality Improvement).
RESULTS (NUMBERS ANALYSED) AND RISK OF BIAS FOR COMPARISON: DISCHARGE PLANNING AS DEFINED BY STUDY versus AS DEFINED BY STUDY. Protocol outcome 1: Readmission. - Actual outcome: Readmissions at 30 days; Group 1: 18/93, Group 2: 18/79; Risk of bias: All domain - High, Selection - Low, Blinding - High, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - Low, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA	
Protocol outcomes not reported by the study	Quality of life; Mortality; Avoidable adverse effects; Length of stay/Time to discharge; Patient and/or carer satisfaction; Delayed Transfers of care; Staff satisfaction.

Study	Lainscak 2013[36]
Study type	RCT (Patient randomised; Parallel).
Number of studies (number of participants)	1 (n=253).

Study	Lainscak 2013[36]
Countries and setting	Conducted in Slovenia; setting: specialised pulmonary hospital, Slovenia.
Line of therapy	Not applicable.
Duration of study	Intervention + follow up.
Method of assessment of guideline condition	Adequate method of assessment/diagnosis.
Stratum	Overall: n/a.
Subgroup analysis within study	Not applicable.
Inclusion criteria	Acute exacerbation of COPD, reduced pulmonary function corresponding to Global Initiative for Chronic Obstructive Lung Disease stage 2 to 4.
Exclusion criteria	Unstable/terminal stage of disease other than COPD (for example, heart failure malignant disease), unable to deal with telephone contact when out of hospital and death/withdrawal of consent before discharge.
Recruitment/selection of patients	Unclear.
Age, gender and ethnicity	Age - Mean (SD): 71 (9). Gender (M:F): 182:71. Ethnicity: not reported.
Further population details	1. Frail Elderly: Not applicable/Not stated/Unclear. 2. Multimorbidity: Not applicable/Not stated/Unclear. 3. People with mental illness: Not applicable/Not stated/Unclear.
Indirectness of population	No indirectness: n/a.
Interventions	(n=118) Intervention 1: Discharge planning - discharge planning as defined by study. Discharge coordinator intervention - assessment of patient situation and homecare needs to identify any problems and specific needs, active involvement of patients and carers in the discharge planning process which was discussed with community/home care nurse, GP, social care worker, physiotherapist and other providers as appropriate, patients contacted by telephone 48 hours post discharge, discharge coordinator activities with care provider continued as appropriate, final patient assessment during a home visit 7 to 10 days after discharge. Duration: during admission and 7-10 days post discharge. Concurrent medication/care: not reported. Further details: 1. Discharge co-ordinator: Not applicable/Not stated/Unclear. 2. Early versus late: Not applicable/Not stated/Unclear. 3. MDT versus no MDT: Not applicable/Not stated/Unclear. (n=135) Intervention 2: Usual care - as defined by study. Routine patient education with written and verbal information about COPD, supervised inhaler use, respiratory, physiotherapy as indicated and disease related communication between medical staff with patients and their caregivers. Duration: during admission. Concurrent medication/care: not reported. Further details: 1. Discharge co-ordinator Not applicable/Not stated/Unclear. 2. Early versus late: Not applicable/Not stated/Unclear. 3. MDT versus no MDT: Not applicable/Not stated/Unclear.

Study	Lainscak 2013[36]
Funding	Funding not stated.
RESULTS (NUMBERS ANALYSED) AND RISK OF BIAS FOR COMPARISON: DISCHARGE PLANNING AS DEFINED BY STUDY versus AS DEFINED BY STUDY. Protocol outcome 1: Quality of life. - Actual outcome: minimal clinically important difference on St. George's Respiratory Questionnaire at 180 days post-discharge; Risk of bias: All domain - High, Selection - Low, Blinding - High, Incomplete outcome data - High, Outcome reporting - Low, Measurement - Low, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA; Group 1 Number missing: 55; Group 2 Number missing: 63 Protocol outcome 2: Mortality. - Actual outcome: all-cause mortality at 180 days post-discharge; HR 0.54 (95%CI 0.23 to 1.28); Risk of bias: All domain - Low, Selection - Low, Blinding - Low, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - Low, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA	
Protocol outcomes not reported by the study	Avoidable adverse effects; Length of stay/Time to discharge; Patient and/or carer satisfaction; Readmission; Delayed Transfers of care; Staff satisfaction.

Study	Lindpaintner 2013[42]
Study type	RCT (Patient randomised; Parallel).
Number of studies (number of participants)	1 (n=60).
Countries and setting	Conducted in Switzerland; setting: 2 internal medicine wards at 1 centre in Switzerland.
Line of therapy	Not applicable.
Duration of study	Intervention + follow up.
Method of assessment of guideline condition	Adequate method of assessment/diagnosis.
Stratum	Overall: n/a.
Subgroup analysis within study	Not applicable: n/a.
Inclusion criteria	One or more of the following: oral anticoagulation, newly ordered insulin, polypharmacy (>8 regular medicines at admission), new diagnosis requiring 4 or more long term medicines. In addition, eligible patients met 1 or more inclusion criteria for vulnerability: living alone, receiving home nursing care prior to admission, requiring complex wound care and being the family caregiver of a dependent adult.
Exclusion criteria	<18 years of age, death anticipated within 30 days, enrolled in another study, unable to give informed consent because of inability to speak German or cognitive impairment, nursing home admission scheduled for the coming

Study	Lindpaintner 2013[42]
	month or primary care physician/local visiting nurse association not participating.
Recruitment/selection of patients	Consecutive patients meeting the inclusion criteria.
Age, gender and ethnicity	Age - Median (range): intervention: 75.1 +/-9.49, control: 75.2 +/-12.36. Gender (M:F): 26:34. Ethnicity: not reported.
Further population details	1. Frail Elderly: Not applicable/Not stated/Unclear. 2. Multimorbidity: Not applicable/Not stated/Unclear. 3. People with mental illness: Not applicable/Not stated/Unclear.
Indirectness of population	No indirectness: n/a.
Interventions	(n=30) Intervention 1: Discharge planning - discharge planning as defined by study. Discharge management intervention - individualised discharge plan formulated by nurse care managers, including teaching about self-management, scheduling of follow up appointments, standardised discharge fax to primary physician and local visiting nurse organisation, structured telephone contact within 24 hours of discharge, NCM availability by pager 24/7 for 5 days post discharge and 1 home visit, following a comprehensive structured assessment (symptom burden, prior adherence to prescribed therapies, family caregiving functional status, cognition and comorbidity), conference with ward team and joining ward rounds. Duration: during admission and 5 days post-discharge. Concurrent medication/care: not reported. Further details: 1. Discharge co-ordinator: Nurse 2. Early versus late: Not applicable/Not stated/Unclear. 3. MDT versus no MDT: Not applicable/Not stated/Unclear. (n=30) Intervention 2: Usual care - as defined by study. The same team of physicians and nurses provided inpatient care to both groups, but NCMs avoided contact with control patients. Duration: during admission. Concurrent medication/care: not reported. Further details: 1. Discharge co-ordinator: Not applicable/Not stated/Unclear. 2. Early versus late: Not applicable/Not stated/Unclear. 3. MDT versus no MDT: Not applicable/Not stated/Unclear.
Funding	Study funded by industry (MediService AG, a provider of home pharmacy services in Switzerland).
RESULTS (NUMBERS ANALYSED) AND RISK OF BIAS FOR COMPARISON: DISCHARGE PLANNING AS DEFINED BY STUDY versus AS DEFINED BY STUDY. Protocol outcome 1: Mortality. - Actual outcome: deaths at 1-5 days post-discharge; Group 1: 0/30, Group 2: 0/30; Risk of bias: All domain - High, Selection - High, Blinding - Low, Incomplete outcome data - High, Outcome reporting - Low, Measurement - Low, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA Protocol outcome 2: Avoidable adverse effects. - Actual outcome: adverse medicine reaction at 1-5 days post-discharge; Group 1: 3/30, Group 2: 2/30; Risk of bias: All domain - Very high, Selection - High, Blinding - Low, Incomplete outcome data - High, Outcome reporting - Low, Measurement - High, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA	

Study	Lindpaintner 2013[42]
Protocol outcome 3: Length of stay/Time to discharge. - Actual outcome: length of stay at admission; Group 1: mean 12.2 days (SD 6.7); n=30, Group 2: mean 12.4 days (SD 5.7); n=30; Risk of bias: All domain - Very high, Selection - High, Blinding - High, Incomplete outcome data - Low, Outcome reporting - High, Measurement - High, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA Protocol outcome 4: Readmission. - Actual outcome: rehospitalisation at 1-5 days post-discharge; Group 1: 1/30, Group 2: 2/30; Risk of bias: All domain - Very high, Selection - High, Blinding - High, Incomplete outcome data - High, Outcome reporting - Low, Measurement - Low, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA	
Protocol outcomes not reported by the study	Quality of life; Patient and/or carer satisfaction; Delayed Transfers of care; Staff satisfaction.

Study	Naughton 1994[52]
Study type	RCT (Patient randomised; Parallel).
Number of studies (number of participants)	1 (n=111).
Countries and setting	Conducted in USA; setting: academic medical centre, USA.
Line of therapy	Not applicable.
Duration of study	Intervention time: during admission and 2 weeks post discharge.
Method of assessment of guideline condition	Adequate method of assessment/diagnosis.
Stratum	Overall: n/a.
Subgroup analysis within study	Not applicable.
Inclusion criteria	70 years or older, admitted from the ED to the medicine service.
Exclusion criteria	Regularly received care from an attending internist on staff at the hospital at the time of admission, admitted to an ICU or transferred from the medical service to a surgical service.
Recruitment/selection of patients	Not stated.
Age, gender and ethnicity	Age - Mean (SD): intervention 80.1(6.6), control 80.1(6.4). Gender (M:F): intervention 51% male, control 36.6% male. Ethnicity: intervention 60.8% white, control 58.3% white.
Further population details	1. Frail Elderly: Not applicable/Not stated/Unclear. 2. Multimorbidity: Not applicable/Not stated/Unclear. 3. People with mental illness: Not applicable/Not stated/Unclear.
Indirectness of population	No indirectness: n/a.

Study	Naughton 1994[52]
Interventions	(n=51) Intervention 1: Discharge planning - discharge planning as defined by study. Geriatric evaluation and management team routinely evaluated patients' mental status, psychosocial condition and functional status to determine medical, rehabilitative and social needs, discussed at team conferences, social worker coordinated community resources and ensured post hospital treatment plan was in place at discharge and 2 weeks later, nurse coordinated transfer to home health care. Duration: during admission and 2 weeks post discharge. Concurrent medication/care: not reported. Further details: 1. Discharge co-ordinator: (GEM team). 2. Early versus late: Not applicable/Not stated/Unclear. 3. MDT versus no MDT: MDT. (n=60) Intervention 2: Usual care - as defined by study. Services of social workers and discharge planners available upon request. Duration: during admission. Concurrent medication/care: not reported. Further details: 1. Discharge co-ordinator: Not applicable/Not stated/Unclear. 2. Early versus late: Not applicable/Not stated/Unclear. 3. MDT versus no MDT: Not applicable/Not stated/Unclear.
Funding	Other (North-western Memorial Foundation).
RESULTS (NUMBERS ANALYSED) AND RISK OF BIAS FOR COMPARISON: DISCHARGE PLANNING AS DEFINED BY STUDY versus AS DEFINED BY STUDY. Protocol outcome 1: Mortality. - Actual outcome: in-hospital mortality during admission; Group 1: 3/51, Group 2: 5/60; Risk of bias: All domain - High, Selection - Low, Blinding - Low, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - Low, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA Protocol outcome 2: Length of stay/Time to discharge. - Actual outcome: length of stay during admission; Group 1: mean 5.4 days (SD 5.5); n=51, Risk of bias: All domain - High, Selection - Low, Blinding - High, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - Low, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA	
Protocol outcomes not reported by the study	Quality of life; Avoidable adverse effects; Patient and/or carer satisfaction; Readmission; Delayed Transfers of care; Staff satisfaction.

Study	Naylor 1994[53]
Study type	RCT (Patient randomised; Parallel).
Number of studies (number of participants)	(n=276 patients, 125 caregivers. Medical patients used for analysis: 142).
Countries and setting	Conducted in USA; setting: university hospital.
Line of therapy	Not applicable.
Duration of study	Follow up (post intervention): 12 weeks.

Study	Naylor 1994[53]
Method of assessment of guideline condition	Adequate method of assessment/diagnosis.
Stratum	Overall.
Subgroup analysis within study	Not applicable.
Inclusion criteria	Eligible patients were 70 years and older, were admitted from their homes to the Hospital of the University of Pennsylvania, and were from selected medical and surgical diagnostic-related groups (DRGs). Patients were randomly assigned to an intervention or control group. The medical DRGs were congestive heart failure and angina/myocardial infarction. Surgical DRGs were coronary artery bypass graft and cardiac valve replacement. In addition, patients had to speak English, be alert and oriented when admitted, and be able to be reached by telephone after discharge. Caregivers, persons identified by patients as those who would assume primary responsibility for their care after discharge, were also enrolled. Patients who did not identify a caregiver were included in the study.
Exclusion criteria	Non-English speaking, not alert or orientated on admission and unable to be reached by telephone after discharge.
Recruitment/selection of patients	Not reported.
Age, gender and ethnicity	Age - Mean (SD): Intervention group: 76 (5.2), control group 76 (4.9). Gender (M:F): Intervention group: 57% male, control group 41% male. Ethnicity: of medical patients used for analysis: White: intervention group: 61%, control group: 69%.
Further population details	1. Frail Elderly: Not applicable/Not stated/Unclear. 2. Multimorbidity: 3. People with mental illness: Not applicable/Not stated/Unclear.
Extra comments	Only the medical group of patients from this study is analysed. The surgical group was not included.
Indirectness of population	No indirectness.
Interventions	(n=72) Intervention 1: Discharge planning - discharge planning as defined by study. Patients and caregivers in the intervention group received the hospital's routine plan and a comprehensive, individualised discharge planning protocol developed specifically for elderly patients and implemented by gerontologic clinical nurse specialists. The protocol extended from hospital admission to 2 weeks after discharge. Compared with the hospital's routine procedure, the discharge planning protocol included the following unique features: 1) comprehensive initial and on-going assessment of the discharge planning needs of the elderly patient and his or her caregiver; 2) development of a discharge plan in collaboration with the patient, caregiver, physician, primary nurse and other members of the health care team; 3) validation of patient and caregiver education; 4) coordination of the discharge plan throughout the patient's hospitalisation and through 2 weeks after discharge; 5) interdisciplinary communication regarding discharge status; and 6) on-going evaluation of the effectiveness of the discharge plan. Two half-time nurse specialists with master's degrees in gerontologic nursing and a minimum of 1 year of practice as a nurse specialist were hired to implement the comprehensive discharge planning protocol for patients in the intervention group. Within 24 to 48

Study	Naylor 1994[53]
	hours of admission, the nurse specialist visited the patient and contacted the caregiver to complete the initial patient and caregiver assessment and to document the preliminary discharge plan. The nurse specialist visited the patient every 48 hours thereafter to implement the plan through patient and caregiver education, referrals, consultation with health care team members, counselling, and coordination of home services. The final visit was made within 24 hours of discharge to finalise discharge preparations. Summaries of the discharge plan were recorded in the patient's chart and distributed to the patient, primary care physician, and other health care team members who would care for the patient at home. In addition to personal visits, the nurse specialist was available 7 days a week by telephone (8 a.m. to 10 p.m. on weekdays; 8 a.m. to 12 p.m. on weekends) throughout the patient's hospitalisation and for 2 weeks after discharge for any questions or concerns from the patient, caregiver, or health care team member that were relevant to the discharge plan. The nurse specialist also initiated a minimum of 2 telephone calls during the first 2 weeks after discharge to monitor the patient's progress and intervene when necessary. Duration: 2 weeks post discharge. Concurrent medication/care: not reported. Further details: 1. Discharge co-ordinator: nurse 2. Early versus late: early 3. MDT versus no MDT: MDT. (n=70) Intervention 2: Usual care - as defined by study. Patients in the control group received the hospital's routine discharge plan, which is used for patients of all ages and diagnostic classifications. Criteria-based screening of all hospital admissions normally occurred within 48 hours of admission. Uncomplicated discharges were managed by the patient's physician and primary nurse. Complicated discharges, which necessitated coordination of services and external providers, involved social workers and community nursing coordinators employed by the hospital. Discharge planning services were provided in accordance with the medical plan of care. Duration: during admission only. Concurrent medication/care: not reported.
Funding	Academic or government funding (National Institute of Nursing Research (NR02095-05)).
RESULTS (NUMBERS ANALYSED) AND RISK OF BIAS FOR COMPARISON: DISCHARGE PLANNING versus USUAL CARE. Protocol outcome 1: Length of stay. - Actual outcome: Length of stay During hospital admission; Group 1: mean 7.4 days (SD 3.8); n=72, Group 2: mean 7.5 days (SD 5.2); n=70; Risk of bias: All domain - High, Selection - Low, Blinding - High, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - Low, Crossover - Low, Subgroups - Low; Indirectness of outcome: No indirectness Protocol outcome 2: Readmission. - Actual outcome: Readmissions at 12 weeks post discharge; Group 1: 18/72, Group 2: 29/70; Risk of bias: All domain - High, Selection - Low, Blinding - High, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - Low, Crossover - Low, Subgroups - Low; Indirectness of outcome: No indirectness	
Protocol outcomes not reported by the study	Mortality; Quality of life; Avoidable adverse effects; Patient/Carer/Family satisfaction; Delayed Transfers of care; Staff satisfaction.

Study	Pardessus 2002[59]
Study type	RCT (Patient randomised; Parallel).
Number of studies (number of participants)	1 (n=60).
Countries and setting	Conducted in France; setting: acute geriatric department of the geriatric hospital.
Line of therapy	Not applicable.
Duration of study	Intervention + follow up.
Method of assessment of guideline condition	Adequate method of assessment/diagnosis.
Stratum	Overall: n/a.
Subgroup analysis within study	Not applicable.
Inclusion criteria	Aged 65 years or older, hospitalised for falling, able to return home after hospitalisation, informed consent to participate.
Exclusion criteria	Cognitive impairment (mini mental test <24), without a telephone, lived further than 30km from the hospital, falls secondary to cardiac, neurologic, vascular, or therapeutic problems.
Recruitment/selection of patients	Not reported.
Age, gender and ethnicity	Age - Mean (SD): intervention: 83.51 (9.08), control: 82.9 (6.33). Gender (M:F): 13:47. Ethnicity: not reported.
Further population details	1. Frail Elderly: Not applicable/Not stated/Unclear. 2. Multimorbidity: Not applicable/Not stated/Unclear. 3. People with mental illness: Not applicable/Not stated/Unclear.
Indirectness of population	No indirectness: n/a.
Interventions	(n=30) Intervention 1: Discharge planning - discharge planning as defined by study. Single home visit by a physical medicine and rehabilitation doctor during hospitalisation, hospital social worker contacted to assess problems encountered, environmental hazards identified, modifications made where possible, advice from occupational therapist, persons likely to bring social assistance contacted. Duration: during admission. Concurrent medication/care: not reported. Further details: 1. Discharge co-ordinator: Not applicable/Not stated/Unclear. 2. Early versus late: Not applicable/Not stated/Unclear. 3. MDT versus no MDT: Not applicable/Not stated/Unclear. (n=30) Intervention 2: Usual care - as defined by study. Usual care - physical therapy during hospitalisation, patient and family informed on home safety and possible social assistance. Duration: during admission. Concurrent medication/care: not reported. Further details: 1. Discharge co-ordinator: Not applicable/Not stated/Unclear. 2. Early versus late: Not applicable/Not

Study	Pardessus 2002[59]
	stated/Unclear. 3. MDT versus no MDT: Not applicable/Not stated/Unclear.
Funding	Funding not stated.
RESULTS (NUMBERS ANALYSED) AND RISK OF BIAS FOR COMPARISON: DISCHARGE PLANNING AS DEFINED BY STUDY versus AS DEFINED BY STUDY. Protocol outcome 1: Mortality. - Actual outcome: death at 12 months; Group 1: 6/30, Group 2: 3/30; Risk of bias: All domain - High, Selection - High, Blinding - Low, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - High, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA Protocol outcome 2: Avoidable adverse effects. - Actual outcome: falls at 12 months; Group 1: 13/30, Group 2: 15/30; Risk of bias: All domain - Very high, Selection - High, Blinding - High, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - High, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA	
Protocol outcomes not reported by the study	Quality of life; Length of stay/Time to discharge; Patient and/or carer satisfaction; Readmission; Delayed Transfers of care; Staff satisfaction.

Study	Preen 2005[64]
Study type	RCT (Patient randomised; Parallel).
Number of studies (number of participants)	1 (n=189).
Countries and setting	Conducted in Australia; setting: 2 Western Australian tertiary hospitals.
Line of therapy	Not applicable.
Duration of study	Intervention + follow up.
Method of assessment of guideline condition	Adequate method of assessment/diagnosis.
Stratum	Overall: n/a.
Subgroup analysis within study	Not applicable.
Inclusion criteria	Have a current GP and at least 2 community care providers for example, allied health worker or in-home nurse.
Exclusion criteria	Discharged to residential aged-care facilitates.
Recruitment/selection of patients	Patients identified via communication with ward staff at each location.
Age, gender and ethnicity	Age - Mean (SD): 75.1 (10.9). Gender (M:F): 74:115. Ethnicity: not reported.
Further population details	1. Frail Elderly: Not applicable/Not stated/Unclear. 2. Multimorbidity: Not applicable/Not stated/Unclear. 3. People with mental illness: Not applicable/Not stated/Unclear.

Study	Preen 2005[64]
Indirectness of population	No indirectness: n/a.
Interventions	(n=91) Intervention 1: Discharge planning - discharge planning as defined by study. Discharge care plan - 24-48 hours before anticipated discharge, individually tailored in accordance with that set down by the Australian Enhanced Primary Care Initiative, including problems identified from hospital notes and patient/caregiver consultation, patient agreed goals based on personal circumstances, identified appropriate interventions and community service providers, faxed to GP, GP consultation within 7 days of discharge for review, care plan faxed back to the hospital, explained in full to patient/carer and copy given. Duration: during admission and 7 days post-discharge. Concurrent medication/care: not reported. Further details: 1. Discharge co-ordinator: Not applicable/Not stated/Unclear. 2. Early versus late: Not applicable/Not stated/Unclear. 3. MDT versus no MDT: Not applicable/Not stated/Unclear. (n=98) Intervention 2: Usual care - as defined by study. All patients have a discharge summary completed which is copied to their GP. Duration: during admission. Concurrent medication/care: not reported. Further details: 1. Discharge co-ordinator: Not applicable/Not stated/Unclear. 2. Early versus late: Not applicable/Not stated/Unclear. 3. MDT versus no MDT: Not applicable/Not stated/Unclear.
Funding	Academic or government funding (Western Australian Department of Health).

RESULTS (NUMBERS ANALYSED) AND RISK OF BIAS FOR COMPARISON: DISCHARGE PLANNING AS DEFINED BY STUDY versus AS DEFINED BY STUDY.

Protocol outcome 1: Quality of life.
- Actual outcome: Medical Outcomes Study Short Form 12 - mental ratings at 7 days post-discharge; Risk of bias: All domain - Very high, Selection - High, Blinding - High, Incomplete outcome data - High, Outcome reporting - Low, Measurement - Low, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA.
- Actual outcome: Medical Outcomes Study Short Form 12 - physical ratings at 7 days post-discharge; Risk of bias: All domain - Very high, Selection - High, Blinding - High, Incomplete outcome data - High, Outcome reporting - Low, Measurement - Low, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA

Protocol outcome 2: Length of stay/Time to discharge.
- Actual outcome: hospital length of stay at admission; Group 1: mean 11.6 days (SD 5.7); n=91, Group 2: mean 12.4 days (SD 7.4); n=98; Risk of bias: All domain - High, Selection - High, Blinding - High, Incomplete outcome data - Low, Outcome reporting - Low, Measurement - Low, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA

Protocol outcome 3: Patient and/or carer satisfaction.
- Actual outcome: patient rating of discharge process at 7 days post-discharge; Risk of bias: All domain - Very high, Selection - High, Blinding - High, Incomplete outcome data - High, Outcome reporting - Low, Measurement - Low, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA;

Protocol outcome 4: Staff satisfaction
- Actual outcome: GP satisfaction with patient's overall discharge process at 7 days post-discharge; Risk of bias: All domain - Very high, Selection - High, Blinding - High, Incomplete outcome data - High, Outcome reporting - Low, Measurement - Low, Crossover - Low; Indirectness of outcome: No indirectness, Comments: NA

Study	Preen 2005[64]
Protocol outcomes not reported by the study	Mortality; Avoidable adverse effects; Readmission; Delayed Transfers of care.