Blijage 17. Evidencetabel UV 3

Uitgangsvraag: Hoe bereik je een overkoepelende en afgestemde behandeling voor patiënten met multimorbiditeit die bij meerdere specialisten in het ziekenhuis komen?

Referentie	Type studie	Kenmerken (studie/ patiënten)	Interventie (I)	Controle (C)	Uitkomst maten en follow-up duur	Elementen organisatorische interventie	Resultaten
Alkema, 2007 (NICE guideline)	RCT N=781	Inclusion criteria: Adults (aged 65 years or over) Community Exclusion criteria: Nursing home residents and those enrolled in similar studies were excluded. Sex: 35 % M / 65% F Age: Intervention group 82.98 (SD 7.12) Control group 83.66 (SD 7.36) Multimorbidity: number of participants with multimorbidity not reported USA	N= 377 The Care Advocate Program (CA program) bridged medical and social care delivery systems using telephone-based care management to coordinate health and long-term care services for chronically ill older adults. Participants received a call within 1 week of assessment and monthly follow-up calls during the 12 month intervention period to monitor progress.	N=404 Received usual care from the health plan, which included medical group case management services designed to triage and address members' health- related issues, and facilitate access to insured health plan services (for example, insured durable medical equipment).	Primary: Mortality Secondary: Health care utilization Follow-up: 24 months	Patient-oriented approach (holistic assessment); Case- or care management (care coordination)	Mortality at 24 months: RR 0.61 (0.44 to 0.83)
Beck, 1997 (NICE guideline)	RCT N=321	Inclusion criteria: Adults (aged 65 years or over) Community Exclusion criteria: None specified Sex: 31 % M / 69% F Age: Intervention group 72 (no SD reported) Control group 75 (no SD reported) Multimorbidity: number of	N= 160 Participants were invited to monthly group visits at the Cooperative Healthcare Clinic. Group visits involved a 30 minute talk by a member of the MDT on a relevant topic, breaks in which nurses took blood pressures and doctors circulated addressing individual concerns of participants and 30 minutes set aside at the end of the talk for	N=161 Standard care. Nil. Duration 12 months.	Mortality (12 months); Unscheduled care – urgent care visits per participant (12 months); Admission to care facility – proportion of participants hospitalised (12 months) (no primary and secondary outcome measures defined) Follow-up: 12 months	Improving interdisciplinary approach (multidisciplinary care)	<u>Mortality at 12 months:</u> RR 0.56 (0.19-1.63) <u>Unscheduled care (urgent care visits per patient) at 12 months:</u> The mean visits per patient in the intervention group was 0.06 lower (0.23 lower to 0.11 higher) <u>Unscheduled care (emergency care visits per patient) at 12 months:</u> The mean visits per patient in the intervention group

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		participants with multimorbidity not reported USA	participants to get one-to-one visits with the physician. Duration 12 months.				was 0.26 lower (0.54 lower to 0.02 higher) <u>Unscheduled care (proportion of patients hospitalised) at 12 months:</u> The mean visits per patient in the intervention group was 0.07 lower (0.14 lower to no difference)
Berglund, 2015 (NICE guideline)	RCT N= 161	Inclusion criteria: Adults (aged 65 years or over) Inpatients (prior to discharge) Exclusion criteria: Nursing home residents and those enrolled in similar studies were excluded. Sex: 45 % M / 55% F Age: Mean ages not reported (24% aged 65-79 , 65% aged ≥ 80 for both intervention and control group) Multimorbidity: number of participants with multimorbidity not reported Sweden	N= 85 Nurse with geriatric expertise made assessment of health/social care need at ED, assessment transferred to ward if participant transferred to ward, also sent to municipal MDT (nurse, social worker, physiotherapist, OT), case manager coordinated planning for discharge, case manager contacted relatives to offer support and advice, care-planning meeting after discharge organized in participant's own home with MDT, within 1 week after care-planning meeting older person contacted by case manager and plan for follow-up made, after 6 months a new care-planning meeting could be held if needed.	N=76 Usual care - some discharge planning in hospital, no meeting or proactive contact after discharge. Duration 12 months.	Primary: Mortality (12 months) Secondary: Follow-up: 12 months	Improving interdisciplinary approach (multidisciplinary care); Patient-oriented approach (holistic assessment, individualized care plan); Case- or care management (care coordination)	<u>Mortality (died during total study) at 12 months:</u> RR 1.42 (0.65 to 3.10)
Bouman, 2008 (NICE guideline)	RCT N=330	Inclusion criteria: Adults (aged 70-84 years) Community Exclusion criteria: Participants who self-rated health status as "moderate or good", receiving home nursing care, on waiting list	N= 160 Program of eight home visits, with telephone follow-up over 18 month period, visited by trained home nurses, visits included multidimensional geriatric assessment	N=170 Usual care, participants could apply for all available care but no structured follow-up. Duration 18 months.	Mortality (24 months); Length of hospital stay – bed days per patient (24 months); Unscheduled care – hospital admissions (24 months); Admission to care facility – nursing home admissions (24 months)	Patient-oriented approach (holistic assessment, individualized care plan)	<u>Mortality (died during total study) at 18 months:</u> RR 1.34 (0.81 to 2.22) <u>Length of hospital stay (days per patient) at 18 months:</u>

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		for care home admission Sex: 35 % M / 65% F Age: Mean 76 years (SD 3.7) Multimorbidity: number of participants with multimorbidity not reported Netherlands	with advice and referral to professional and community services. Differentiated from other CGA studies as each patient had formulaic pattern of follow-up as opposed to individualized treatment plan on back of CGA. Duration 18 months.		Follow-up: 24 months		The mean days per patient in the intervention group was 0.40 lower (4.3 lower to 3.5 higher) <u>Unscheduled care (hospital admissions) at 18 months</u> RR 0.97 (0.42 to 2.21)
Courtney, 2009 (NICE guideline)	RCT N=128	Inclusion criteria: Adults (aged 65 years or over) Inpatient Exclusion criteria: Factors that would undermine patients' ability to participate in the intervention: patients requiring home oxygen, patients unable to walk independently for 3 metres (with/without walking aids), patients with neurological or cognitive deficit or disease. Sex: 40 % M / 60% F Age: Mean 78.8 years (SD 6.9) Multimorbidity: number of participants with multimorbidity not reported USA	N= 64 Within 72 hours of admission a registered nurse and physiotherapist undertook a comprehensive patient assessment and developed a goal-directed, individualised care plan in consultation with the patient, health professionals, family and caregivers. Plan included: an individually tailored exercise program; nurse home visits; and telephone follow-up.	N=64 Standard care, discharge planning and rehabilitation advice normally provided.	Health-related quality of life – SF-12 (physical component) (6 months); Health-related quality of life – SF-12 (mental component) (6 months); Unscheduled care – emergency hospital readmissions (6 months); Unscheduled care – emergency GP visits (6 months). Follow-up: 6 months	Patient-oriented approach (holistic assessment, individualized care plan)	<u>Unscheduled care (emergency hospital readmission) at 6 months:</u> OR 0.14 (0.04 to 0.45) <u>Unscheduled care (emergency GP visits) at 6 months</u> RR 0.38 (0.24 to 0.61)
Eklund, 2013 (NICE guideline)	RCT N=781	Inclusion criteria: Adults (aged 80 or older or 65-79 with at least one chronic disease and dependent in at least one ADL)	N=89 Collaboration between a nurse with geriatric	N=76 Usual care including care planning following a routine assessment by	Functional outcomes – improvement in ADL (12 months); Functional outcomes – worsening in ADL (12 months).	Improving interdisciplinary approach (multidisciplinary care); Patient-oriented approach (holistic assessment, individualized care plan); Case- or care	<u>Mortality</u> RR 1.49 (0.91 to 2.45)

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		Community (identified when presenting at ED) Exclusion criteria: Acute severe illness, dementia, palliative care Sex: 45 % M / 55% F Age: Mean and range not reported Multimorbidity: number of participants with multimorbidity not reported Sweden	competence at the emergency department, the hospital wards and a multi-professional team in the community. Participants underwent geriatric assessment by nurse with geriatric competence, during admission followed by care co-ordination, care planning and home follow-up. Focus of intervention was on creating a continuum of care.	community team following discharge, rehabilitation if needed following assessment.	Follow-up: 12 months	management (care coordination)	<u>Functional outcomes (any improvement in ADL)</u> RR 1.64 (1.01 to 2.66) <u>Functional outcomes (any worsening in ADL)</u> RR 0.79 (0.55 to 1.14)
Ell, 2010 (NICE guideline)	RCT N=387	Inclusion criteria: Adults (aged 18 years or over) Community Exclusion criteria: Acute suicidal ideation, score of ≥8 on the Alcohol Use Disorders Test alcohol assessment, recent lithium/antipsychotic medication use, inability to speak English or Spanish. Sex: 20 % M / 80% F Age: Intervention group 145 (75.1%) of participants aged ≥ 50 Control group 134 (69.1%) of participants aged ≥ 50 Multimorbidity: comorbid depression and diabetes USA	N= 193 Problem solving therapy and/or antidepressant medication based on a stepped-care algorithm; first-line treatment choice; telephone treatment response; adherence; and relapse prevention follow-up.	N=194 Standard clinic care plus patient receipt of depression educational pamphlets and a community resource list.	Health-related quality of life – SF12 mental component (12 and 18 months); Health-related quality of life – SF12 physical component (12 and 18 months). Follow-up: 18 months	Case- or care management (care coordination)	<u>Health-related quality of life (SF12 mental) at 18 months (high scores = better outcome):</u> The mean health related quality of life (sf12 mental) at 18 months in the intervention groups was 1.61 higher (0.77 lower to 3.99 higher) <u>Health-related quality of life (SF12 physical) at 18 months (high scores = better outcome)</u> The mean health related quality of life (sf12 physical) at 18 months in the intervention groups was 1.28 lower (3.53 lower to 0.97 higher) <u>Functional Outcomes (scale of functional impairment) at 18 months</u> <u>Sheehan Disability Scale of functional</u>

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							impairment. Scale from: 1 to 10. Low scores = better outcome The mean functional outcome (scale of functional impairment) at 18 months in the intervention groups was 0.1 higher (0.5 lower to 0.7 higher)
Hogg, 2009 (NICE guideline, Cochrane review)	RCT N=241	Inclusion criteria: Adults (aged 50 years or over) Community Exclusion criteria: Substantial cognitive impairment, language or cultural barriers, life expectancy less than 6 months, and plans to move or to be away for more than 6 weeks during the study period. Sex: Intervention group 48 % M / 52% F Control group 37 % M / 63% F Age: Intervention group 69.6 (no SD reported) Control group 72.8 (no SD reported) Multimorbidity: number of participants with multimorbidity not reported; mean number of chronic conditions: intervention 2.7, control 2.3. Canada	N= 120 Anticipatory and Preventative Team Care (APTCare) Intervention: home-based multidisciplinary team management with an initial assessment by a nurse practitioner and a medication review by a pharmacist and individualized patient care plan.	N=121 Patients received usual care from their family physicians.	Health-related quality of life - SF36 mental component (15 months); Health-related quality of life - SF36 physical component (15 months); Health-related quality of life - total number of unhealthy days in last 30 days (15 months); Mortality (15 months); Unscheduled care - average number of ED visits (15 months); Unscheduled care - average number of hospital admissions (15 months); Caregiver burden (15 months). Follow-up: 15 months	Improving interdisciplinary approach (multidisciplinary care); Patient-oriented approach (medication review); Case- or care management (care coordination).	Health-related quality of life (SF36 physical) at 15 months (Scale from: 0 to 100. High scores = better outcome.) sf36 physical) at 15 months in the intervention groups was 1.6 higher (0.85 lower to 4.05 higher) Health-related quality of life (SF36 mental) at 15 months Scale from: 0 to 100. High scores = better outcome. The mean health related quality of life (sf36 mental) at 15 months in the intervention groups was 1.1 lower (3.75 lower to 1.55 higher) Health-related quality of life (total no days unhealthy in last 30 days) at 15 months The mean change in the number of unhealthy days in the intervention group was 1.4 lower (4.54 lower to 1.74 higher)

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							Mortality at 15 months OR 7.58 (0.78 to 73.54) Unscheduled care (average no of ED visits) at 15 months The mean change in unscheduled care (average no of ED visits) at 15 months in the intervention groups was 0.1 lower (0.37 lower to 0.17 higher) Unscheduled care (average no of hospital admissions) at 15 months The mean change in unscheduled care (average no of hospital admissions) at 15 months in the intervention groups was 0.06 lower (0.31 lower to 0.19 higher) Patient/carer treatment burden (caregiver burden) at 15 months Scale (unspecified) from: 0 to 88, high scores = poor outcome. The mean change in caregiver burden at 15 months in the intervention groups was 5 higher (1.41 to 8.6 higher)
Metzelthin, 2013 (NICE guideline)	RCT N=346	Inclusion criteria: Adults (aged 70 years or over) Community Exclusion criteria:	N= 193 People received an in home multidimensional assessment by a practice nurse, GP and practice nurse	N=153 Usual care, no further details provided	Functional outcome – (GARS ADL subscale, 24 months); Functional outcome (GARS IADL subscale, 24 months).	Patient-oriented approach (holistic assessment, individualized care plan); Case- or care management (care coordination)	Functional outcome (GARS – ADL subscale, 11-44, higher is worse outcome) The mean functional outcome (GARS - ADL subscale, 11-44, higher is

Referentie	Type studie	Kenmerken (studie/ patiënten)	Interventie (I)	Controle (C)	Uitkomst maten en follow-up duur	Elementen organisatorische interventie	Resultaten
		Terminally ill, severe cognitive or psychological impairment, unable to communicate in Dutch Sex: 42 % M / 58% F Age: Intervention group 77.49 (SD 5.8) Control group 76.8 (SD 4.92) Multimorbidity: number of participants with multimorbidity not reported Netherlands	discussed the assessment and the need for other assessments, preliminary treatment plan formulated by GP and practice nurse with or without an MDT meeting, second home visit by practice nurse to formulate final treatment plan with person, practice nurse also acts as case manager to regularly review achievement of goals and need for additional support		Follow-up: 24 months		worse outcome) in the intervention groups was 0.77 higher (0.05 lower to 1.59 higher) <u>Functional outcome (GARS - IADL subscale, 7-28, higher is worse outcome) Scale from: 7 to 28.</u> The mean functional outcome (GARS - IADL subscale, 7-28, higher is worse outcome) in the intervention groups was 0.40 higher (0.54 lower to 1.34 higher)
Naylor, 2004 (NICE guideline)	RCT N=239	Inclusion criteria: Adults (aged 65 years or over) Patients identified as inpatients, hospitalized with heart failure, intervention planned discharge to community Exclusion criteria: Elders with end-stage renal disease were excluded because of their access to unique Medicare services. Sex: Intervention group 40 % M / 60% F Control group 44 % M / 56% F Age: Intervention group 76.4 (SD 6.9) Control group 75.6 (SD 6.5) Multimorbidity: number of participants with multimorbidity not	N= 118 Collaboration with patients' physicians, 3 advanced practice nurses implemented an intervention extending from index hospital admission through 3 months after the index hospital discharge.	N=121 Patients received care routine for the admitting hospital, including site-specific heart failure patient management and discharge planning critical paths and, if referred, standard home agency care consisting of comprehensive skilled home health services.	Quality of life - Minnesota Living with Heart Failure Questionnaire (total score) (12 months); Mortality (12 months); Functional outcome - Functional Status Score (12 months). Patient and carer satisfaction - patient satisfaction (6 weeks). Follow-up: 12 months	Case- or care management (care coordination)	<u>Health-related quality of life (Minnesota Living with Heart Failure Questionnaire) at 12 months</u> <u>Scale from: 0 to 105. High scores = poor outcome.</u> The mean quality of life (Minnesota living with heart failure questionnaire) at 12 months in the intervention groups was 0.2 higher (0.36 lower to 0.76 higher) <u>Mortality at 12 months</u> RR 0.87 (0.41 to 1.86) <u>Functional Outcomes (functional status score) at 12 months: The Enforced Social Dependency Scale.</u> <u>Scale from: 12 to 72. High scores = poor outcome.</u> The mean functional status (functional status score) at

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		reported; mean number of conditions: intervention 6.4 (SD 2.5), control: 6.4 (SD 2.0). USA					12 months in the intervention groups was 0.2 higher (0.3 lower to 0.7 higher) <u>Patient & Carer Satisfaction (patient satisfaction) at 6 weeks The Patient Satisfaction Score. Scale from: 44 to 100. High scores = better outcome.</u> The mean patient & carer satisfaction (patient satisfaction) at 6wk in the intervention groups was 5.3 higher (2.28 to 8.32 higher)
Sandberg, 2015 (NICE guideline)	RCT N=153	Inclusion criteria: Adults (aged 65 years or over) Community Exclusion criteria: Not able to communicate verbally, cognitive impairment, special accommodation Sex: Intervention 35 % M / 65% F Control 31.5 % M / 68.5% F Age: Intervention group 81.4 (SD 5.9) Control group 81.6 (SD 6.8) Multimorbidity: all patients had at least 2 "health complaints" Sweden	N= 80 Case management. Patients received traditional case management with assessment, coordination, home visits and telephone calls. Patients also received general information about the healthcare system and specific information about their needs. Case managers either had nursing or physiotherapy backgrounds. Monthly visits (over 12 months) took place in the patient's own homes. Each visit lasted ~1 hour and the contents of the visits depended on the individual's care plan. The first visit involved a CGA to inform a care plan to be used for subsequent visits. Duration 12 months.	N=73 Usual care. Duration 12 months.	Mortality (12 months); Length of hospital stay – total length of inpatient stays (12 months); Unscheduled care – hospital admissions per patient (12 months). Follow-up: 12 months	Patient-oriented approach (holistic assessment, individualized care plan); Case- or care management (care coordination)	<u>Mortality (died during total study) at 12 months</u> RR 3.04 (0.87 to 10.62) <u>Length of hospital stay (days per patient) at 12 months</u> The mean days per patient in the intervention group was 0.55 higher (3.77 lower to 4.87 higher) <u>Unscheduled care (hospital admissions per patient) at 12 months</u> The mean admissions per patient in the intervention group was 0.01 lower (0.25 lower to 0.27 higher)
Slaets, 1997	RCT	Inclusion criteria:	N= 140	N=97	Mortality (unclear time point);	Improving interdisciplinary approach (multidisciplinary	<u>Mortality at unclear time point</u>

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(NICE guideline)	N=237	Adults (aged 75 years or over) Inpatient Exclusion criteria: Patients admitted for day treatment were excluded. Sex: 30 % M / 70% F Age: Mean 82.8 years (SD 5) Multimorbidity: number of participants with multimorbidity not reported Netherlands	Psychogeriatric intervention, consisting of multidisciplinary joint treatment by a psychogeriatric team (a geriatrician, a specialised geriatric liaison nurse, and a physiotherapist). Weekly multidisciplinary meeting were held, attended by the geriatric team, the nurses, social worker, dietician, and psychiatrist. The geriatrician was present at the weekly ward rounds with the attending physician and the 2 resident physicians. In addition, the geriatric team had their own ward rounds every week.	Usual care consisted of services provided by physicians and nurses in another general medical unit in the same hospital.	Functional outcomes - ADL (unclear time point); Functional outcome - mobility (unclear time point); Length of hospital stay (unclear time point); Admission to care facility (unclear time point); Follow-up: Unclear	care); Patient-oriented approach (holistic assessment, individualized care plan); Case- or care management (care coordination)	RR 2.49 (0.96 to 6.49) <u>Unscheduled care (hospital readmission)</u> RR 0.58 (0.36 to 0.93)
Sommers, 2000 (NICE guideline, Cochrane review)	RCT N= 734	Inclusion criteria: Adults (aged 65 years or over) living in the community, with difficulties living independently Community Exclusion criteria: Not terminally ill, not residing in a nursing home, not under therapy for metastatic disease, Alzheimer disease, or related dementias. Sex: 33 % M / 67% F Age: Intervention group 77 (SD 6.6) Control group 78 (SD 6.8) Multimorbidity: 2 or more chronic conditions	N= 383 Senior Care Connections (SCC) intervention required collaboration among a primary care physician, nurse with geriatrics training, and a clinical social-worker. Home visit assessment followed by team discussion and development of a risk reduction plan and treatment targets. Throughout the intervention, the team met with trainers to learn team building skills and strategies for coaching patients in chronic disease self-management. The SCC intervention focused on a set of defined activities for each intervention patient. The nurse or social worker	N=351 Received usual care from their primary care physician. Physicians did not re-review patients as they came in for office visits during enrolment period and no new patients were added.	Mortality (24 months); Unscheduled care – hospital admissions per year (24 months). Follow-up: 24 months	Improving interdisciplinary approach (multidisciplinary care)	<u>Mortality at 24 months</u> RR 0.87 (0.51 to 1.47) <u>Unscheduled care (hospital admission) at 6 months</u> OR 0.63 (0.41 to 0.96)

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		USA	visited the patient in the home. A risk reduction plan was discussed with the patient and his/her family to set target objectives and plan treatment by means of chronic disease self-management strategies. Nurse/social worker monitored the patient's health status between office visits through telephone calls, home visits or office/hospital visits at least once every 6 weeks. PCP/nurse/social worker met at least monthly to review patient's status and revise care plans.				
Behm, 2014 (NICE guideline)	RCT N=459	Inclusion criteria: Adults (aged 80 years or over) Community Exclusion criteria: None stated Sex: Intervention 1 36% M / 64% F Intervention 2 34% M / 66% F Control 39% M / 61% F Age: Intervention 1 Mean 86 (range 80-94) Intervention 2 Mean 86 (range 80-94) Control group Mean 85 (range 80-94) Multimorbidity: number of participants with	N= Intervention 1: 174 Intervention 2: 171 Intervention 1: Single home visit. Single home visit made by either a nurse, physiotherapist, social worker or occupational therapist. Participant given verbal and written information on what the urban district provides in terms of meeting places, activities, physical training for seniors, help and support available from professional organisations and volunteers. Visitor also identified falls risks and advice given on how to prevent falls. Visit lasted between 1.5 and 2 hours.	N=114 Usual care. Access to ordinary range of services in municipality (for example, meals on wheels, help with ADLs).	Quality of life - deterioration in selfrated health by SF-36 (24 months); Quality of life - deterioration in satisfaction with physical health (24 months); Quality of life - deterioration in satisfaction with psychological health (24 months) Follow-up: 24 months	Improving interdisciplinary approach (multidisciplinary care); self-management support	Intervention 1: Quality of life - single visit vs control - deterioration in self-rated health by SF-36 OR 0.64 (0.38 to 1.07) Quality of life - single visit vs control - deterioration in satisfaction with physical health OR 0.43 (0.22 to 0.84) Quality of life - single visit vs control - deterioration in satisfaction with psychological health OR 0.30 (0.16 to 0.56) Intervention 2: Quality of life - group meetings vs control - deterioration in self-rated health by SF-36 OR 0.95 (0.57 to 1.57)

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		multimorbidity not reported Sweden	Intervention 2: Senior meetings. Four weekly meetings, no more than six participants in each group, each lasting ~2hrs, focus on information about aging process and consequences and provision of tools/strategies for solving problems that can arise in the home environment. Follow-up home visit two to three weeks after group meetings completed. Group meetings were multi-professional and multi-dimensional, led either by occupational therapist, nurse, physiotherapist or social worker.				<u>Quality of life - group meetings vs control - deterioration in satisfaction with physical health</u> OR 0.28 (0.14 to 0.59) <u>Quality of life - group vs control - deterioration in satisfaction with psychological health</u> OR 0.40 (0.22 to 0.72)
Boult, 2008 (NICE guideline, Cochrane review) *Boyd 2010 *Boult 2011 *Boult 2013	RCT N=904	Inclusion criteria: Adults (aged 65 years or over) Community Exclusion criteria: Patients who were interviewed in their home for eligibility were considered ineligible if they did not have a telephone, did not speak English, were planning extended travel during the following 2.5 years, or failed a brief cognitive screen and did not have a proxy Sex: Intervention 45.8 % M / 54.2% F Control 44.6 % M / 55.4% F Age:	N= 485 'Guided Care' programme comprising 8 clinical services including home- based assessment, individual management plan, coaching for self-management with monthly monitoring and coordination of care provision. Delivered by trained guided care nurses.	N=419 Usual care	Mortality (32 months); Health-related quality of life – SF-12 (physical component) (32 months); Health-related quality of life – SF-12 (mental component) (32 months); Patient satisfaction – Patient assessment of chronic illness care (PACIC) and 'very satisfied' with regular healthcare (32 months); Unscheduled care – emergency department visits (6-8 months); Continuity of care - management continuity (Primary care assessment survey integration and communication subscales) (32 months); Continuity of care -	Patient-oriented approach (holistic assessment, individualized care plan); Case- or care management (care coordination); self-management support	<u>Health-related quality of life (SF-36 physical component). Scale from: 0 to 100. High scores = better outcome.</u> The mean health related quality of life (sf-36 physical) in the intervention group was 1.31 lower (3.02 lower to 0.4 higher) <u>Health-related quality of life (SF-36 mental component). Scale from: 0 to 100. High scores = better outcome.</u> The mean health related quality of life (sf-36 mental) in the intervention group was 1.05 higher (1.06 lower to 3.16 higher) <u>Mortality</u> RR 0.88 (0.59 to 1.31)

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		Intervention group 77.2 (range 66-106) Control group 78.1 (range 66-96) Multimorbidity: number of participants with multimorbidity not reported, mean number of self-reported conditions (conditions not specified): intervention: 4.3 (range 0-13); control: 4.3 (range 0-12). USA			provider continuity (Access to doctor's appointment 'same day' when sick) (32 months). Follow-up: 32 months		<u>Patient and carer satisfaction (patient satisfaction, Patient and assessment of Chronic Illness (PACIC)) Scale not reported.</u> The mean patient satisfaction (pacic) in the intervention groups was 0.27 higher (0.08 to 0.46 higher) <u>Patient and carer satisfaction (patient satisfaction, 'very satisfied' with regular healthcare) Scale not reported.</u> OR 1.50 (0.77 to 2.90) <u>Unscheduled care (emergency department visits)</u> OR 1.04 (0.81 to 1.34) <u>Continuity of care (integration subscale) Scale not reported.</u> The mean continuity of care (integration subscale) in the intervention groups was 2.79 higher (0.97 lower to 6.55 higher) <u>Continuity of care (communication subscale) Scale not reported.</u> The mean continuity of care (communication subscale) in the intervention groups was 2.97 higher (0.68 lower to 6.62 higher)

Referentie	Type studie	Kenmerken (studie/ patiënten)	Interventie (I)	Controle (C)	Uitkomst maten en follow-up duur	Elementen organisatorische interventie	Resultaten
							Continuity of care (same day access to GP when sick) Scale not reported OR 1.20 (0.65 to 2.22)
Chow, 2014 (NICE guideline)	RCT N= 312	Inclusion criteria: Adults (aged 65 years or over (however patients of age 60 were included according to the results) Inpatient (admitted with a medical diagnosis related to chronic respiratory, cardiac, type 2 diabetes and renal diseases, prior to discharge) Exclusion criteria: MMSE <20, discharged to institutional care, unable to communicate, terminally ill Sex: Intervention 1 47.1 % M / 52.9% F Intervention 2 45.8 % M / 54.2% F Control 50.0 % M / 50.0% F Age: Intervention 1 group median 75.5 (range 60-92) Intervention 2 group median 76.0 (range 60-92) Control group median 77.0 (range 60-89) Multimorbidity: all patients had at least two co-morbid diseases Hong Kong	N= Intervention 1: 96 Intervention 2: 108 Intervention 1: Case management with home visits. A nurse case manager (NCM) carried out a pre-hospital discharge assessment using the Omaha system (involves problem classification, interventions and problem rating). Patients received weekly visits for 4 weeks after discharge. Patients were encouraged to make decisions and take action to monitor their condition. Interventions were tailor made for patients. NCM made a home visit in the first week, in the second week the NCM called the patients to monitor and support them, in the third week nursing students visited the patient and in the fourth week the NCM made a final telephone call to remind them about adhering to positive behaviours. Duration 4 weeks. Intervention 2: Case management with phone follow-up. A nurse case manager (NCM) carried out a pre-hospital discharge assessment using	N=108 Placebo phone calls made twice in the 4 weeks, 5 minute calls only about social topics (for example, weather, television programmes, leisure activities). Duration 4 weeks.	Health-related quality of life – SF-36 mental component (12 weeks); Health-related quality of life – SF-36 physical component (12 weeks) Follow-up: 12 weeks	Patient-oriented approach (holistic assessment); Case- or care management (care coordination); self-management support	Intervention 1: Health-related quality of life (SF-36 mental component) SF36. Scale from: 0 to 100. High scores = better outcome. The mean final SF-36 mental score in the intervention group was 1.9 higher (0.2 lower to 4.0 higher) Health-related quality of life (SF-36 physical component) SF36. Scale from: 0 to 100. High scores = better outcome. The mean final SF-36 physical score in the intervention group was 3.1 higher (1.0 lower to 5.2 higher) Intervention 2: Health-related quality of life (SF-36 mental component) SF36. Scale from: 0 to 100. High scores = better outcome. The mean final SF-36 mental score in the intervention group was 1.2 higher (1.5 lower to 3.9 higher) Health-related quality of life (SF-36 physical component) SF36. Scale from: 0 to 100. High scores = better outcome. The mean final SF-36 physical score in the intervention group was 3.3

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			the Omaha system (involves problem classification, interventions and problem rating). Patients received weekly visits for 4 weeks after discharge. Patients were encouraged to make decisions and take action to monitor their condition. Interventions were tailor made for patients. The NCM made a first telephone call based on the patient's needs identified at assessment, nursing students called the patient in the second and third week post-discharge. Patients were referred to the goals and interventions developed by the NCM during the assessment. In the fourth week the NCM made a final phone call. Duration 4 weeks.				higher (1.2 lower to 5.4 higher) Intervention 1 (intervention) compared to intervention 2 (control): Health-related quality of life (SF-36 mental component) at 12 weeks. Scale from: 0 to 100. High scores = better outcome. The mean final SF-36 mental score in the intervention group was 0.7 higher (1.9 lower to 3.3 higher) Health-related quality of life (SF-36 physical component) at 12 weeks. Scale from: 0 to 100. High scores = better outcome. The mean final SF-36 physical score in the intervention group was 0.2 lower (2.4 lower to 2.0 higher)
Coburn, 2012 (NICE guideline)	RCT N=1736	Inclusion criteria: Adults (aged 65 years or over) Community Exclusion criteria: Dementia; end stage renal disease; schizophrenia; active cancer (except skin) in prior 5 years; life expectancy less than 6 months; current or imminent residence in long term care facility. Assessment of risk classified as low or very low according to a 'disease-specific risk assessment developed by HQP'.	N= 871 HQP programme. Individualised plan developed by nurse case manager, based on: the patient's self-identified primary concerns and unmet needs; findings from their initial and on-going assessments; and the patient's motivational stage of change. The interventions typically incorporated into care plan include: education, symptom monitoring, medication	N= 863 Usual care.	Mortality (mean followup 4.2 years) Follow-up: mean 4.2 years	Patient-oriented approach (holistic assessment, individualized care plan); Case- or care management (care coordination); self-management support	Mortality at 4.2 years HR 0.73 (0.55 to 0.97)

Referentie	Type studie	Kenmerken (studie/ patiënten)	Interventie (I)	Controle (C)	Uitkomst maten en follow-up duur	Elementen organisatorische interventie	Resultaten
		Sex: 39 % M / 61% F Age: Mean 74.8 years (SD 6.5) Multimorbidity: number of participants with multimorbidity not reported; mean number of chronic conditions 3.8 (SD 1.9). USA	reconciliation, counselling for adherence, help identifying, arranging and monitoring community and social service referrals. Group interventions directly provided by nurse case managers included: structured lifestyle and behaviour change programs for weight loss, weight loss maintenance, exercise classes and a balance and mobility programme for fall prevention.				
Gitlin 2006 (NICE guideline, Cochrane review) *Gitlin 2009 *Gitlin 2006	RCT N=319	Inclusion criteria: Adults (aged 70 years or over) Community Exclusion criteria: Acute suicidal ideation, score of ≥8 on the Alcohol Use Disorders Test alcohol assessment, recent lithium /antipsychotic medication use, inability to speak English or Spanish. Sex: Intervention 17.5 % M / 82.5% F Control 18.9 % M / 81.1 % F Age: Intervention 79.5 years (SD 6.1) Control 78.5 (SD 5.7) Multimorbidity: number of participants with multimorbidity not	N= 160 Multicomponent home intervention (the ABLE programme) delivered by occupational therapist (5 contacts, 4x face-to-face for 90 minutes and 1x 20 minute telephone contact) and physical therapist (90 minutes), aimed at reducing functional difficulties; over 6 months, followed by 6 month follow-up and 3 telephone contacts and final home visit.	N=159 patients assigned to no-treatment control group did not receive any intervention contact.	Mortality (2, 3, 4 years from study); Functional outcomes – ADL (mean difference across 6 items) (6 months); Functional outcomes – IADL (mean difference across 6 items) (6 months); Functional outcomes – mobility (mean difference across 6 items) (6 months). Follow-up: 4 years	Patient-oriented approach (individualized care plan); self-management support	<u>Survival - 2 years</u> HR 0.39 (0.18 to 0.86) <u>Survival - 3 years</u> HR 0.74 (0.45 to 1.23) <u>Survival - 4 years</u> HR 0.76 (0.49 to 1.2) <u>Function – ADL Scale from: 1 to 5.</u> High scores = poor outcome. The mean function (activities of daily living) in the intervention groups was 0.1 lower (0.21 lower to 0.02 higher) <u>Function – IADL Scale from: 1 to 5. High scores = poor outcome.</u> The mean function (instrumental activities of daily living) in the intervention groups was 0.12 lower

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		reported; mean number of conditions: intervention 7.1, control 6.7. USA					(0.26 lower to 0.03 higher) <u>Function (Mobility) Scale from: 1 to 5. High scores = poor outcome.</u> The mean function - mobility in the intervention groups was 0.14 lower (0.29 lower to 0.01 higher)
Katon, 2010 (NICE guideline)	RCT N=214	Inclusion criteria: Patients with poorly controlled diabetes, coronary heart disease, or both and coexisting depression Community Exclusion criteria: Terminal illness, residence in a long-term care facility, severe hearing loss, planned bariatric surgery within 3 months, pregnancy or breast feeding, on-going psychiatric care, bipolar disorder or schizophrenia, use of antipsychotic or mood-stabiliser medication, and observed mental confusion suggesting dementia. Sex: Intervention 52 % M / 48% F 44 % M / 56% F Age: Intervention Mean 57.4 years (SD 10.5) Control Mean 56.3 years (SD 12.1) Multimorbidity: patients with comorbid physical and mental health problems (that is, diagnoses of diabetes, coronary heart disease, or	N= 106 TEAMcare intervention integrating a treat-to-target programme with structured visits with nurses, individualised care plans and treatment targets, support for self-care combined with pharmacotherapy, provision of self-care materials for patients, weekly meetings to discuss case progression between nurses, primary care physicians, physiatrist and psychologist, electronic registry used to track risk factors and depression scores.	N=108 Received "enhanced usual care", that is, after randomisation were advised to consult with their primary care physician to receive care for depression and for diabetes, coronary heart disease, or both.	Health-related quality of life - Quality of life score, over the previous month (12 months); Health-related quality of life – Global Quality of Life rating (12 months); Mortality (12 months); Functional outcome – Sheehan Social Role Disability scale (12 months); Functional outcome – WHODAS-2 activities of daily living (12 months); Patient and carer satisfaction - satisfaction with care of diabetes, heart disease, or both (12 months); Unscheduled care - proportion hospitalised (had at least 1) (12 months). Follow-up: 12 months	Patient-oriented approach (individualized care plan, medication review); self-management support	<u>Health-related quality of life (Global quality of life rating) Scale from: 0 to 10. High scores = poor outcome.</u> The mean health related quality of life (global quality of life rating) at 12 months in the intervention groups was 0.8 higher (3.11 lower to 4.71 higher) <u>Mortality</u> OR 0.52 (0.05 to 5.05) <u>Functional outcomes (Sheehan social role disability scale) at 12 months</u> <u>Sheehan social role disability scale.</u> <u>Scale from: 0 to 10. High scores = poor outcome.</u> The mean functional outcome (Sheehan social role disability scale) at 12 months in the intervention groups was 0.7 lower (1.55 lower to 0.15 higher) <u>Functional outcomes (WHODAS-2 activities of daily living) at 12 months</u> <u>WHODAS-2 activities of daily living.</u>

Referentie	Type studie	Kenmerken (studie/ patiënten)	Interventie (I)	Controle (C)	Uitkomst maten en follow-up duur	Elementen organisatorische interventie	Resultaten
		both and coexisting depression). USA					Scale from: 0 to 4. High scores = better outcome. The mean functional outcome (whodas- 2 activities of daily living) at 12 months in the intervention groups was 0 higher (3.07 lower to 3.07 higher) Patient & carer satisfaction (as assessed by the number of patients satisfied with care for diabetes, heart disease or both) RR 1.22 (1.04 to 1.43) Unscheduled care (proportion hospitalised at least once) RR 1.20 (0.73 to 1.95)
Legrain, 2011 (NICE guideline)	RCT N=665	Inclusion criteria: Adults (aged 70 years or over) Patients identified as inpatients but intervention spans discharge Exclusion criteria: Expected length of stay less than 5 days; poor chance of survival at 3 months (according to clinical judgement of the senior geriatrician in charge); receiving palliative care; previous participation in OMAGE study; inclusion in another therapeutic trial, not French speaking, impossible to follow up (for example, lived in foreign country), absence of any health insurance (required by French law on clinical trials).	N= 317 Intervention led by geriatricians, targeted 3 risk factors for preventable readmissions and consisted of 3 components (comprehensive chronic medication review, education on self-management of disease, and detailed transition-of-care communication with outpatient health professionals).	N=348 Standard care from the acute geriatric unit; care includes a rehabilitation component in addition to acute care.	Mortality (6 months); Unscheduled care - unplanned admission to acute medical care or surgical unit (6 months); Unscheduled care - readmission to acute geriatric unit (6 months); Follow-up: 6 months	Patient-oriented approach (medication review); self-management support	Mortality RR 0.86 (0.62 to 1.19) Unscheduled care (emergency department visit) RR 0.95 (0.52 to 1.72) Unscheduled care (emergency hospital readmission) RR 0.85 (0.69 to 1.05)

Referentie	Type studie	Kenmerken (studie/ patiënten)	Interventie (I)	Controle (C)	Uitkomst maten en follow-up duur	Elementen organisatorische interventie	Resultaten
		Sex: Intervention 30.3 % M / 69.7% F Control 37.4 % M / 62.6% F Age: Intervention group 85.8 (SD 6.0) Control group 86.4 (SD 6.3) Multimorbidity: number of participants with multimorbidity not reported; mean number of chronic conditions, mean 3.29 (SD 1.64). France					
Barley, 2014 (Cochrane review)	RCT (pilot) N=81	Inclusion criteria: Participants with coronary heart disease (with current chest pain) and depression (identified using two stage screening process to confirm diagnosis) Primary care Exclusion criteria: Temporary registrants, actively suicidal, suffering from psychotic depression, non-English speaking or currently hospitalised were excluded. Sex: Intervention group 66 % M / 34% F Control group 63 % M / 37% F Age: Intervention group 64.2 (SD 13.0) Control group 64.9 (SD 8.5)	N= 41 UPBEAT intervention: Nurse case manager who undertook biopsychosocial assessment and developed patient-held personalised care; 3 problems prioritised with behaviour change approach aiming to increase self-efficacy. Initial face-to-face meeting then weekly telephone calls during intervention period. Weekly team meetings for nurse case manager, GP and psychiatrist	N=40 Received usual care.	Primary: Depression (HADS-D and PHQ scores) Chest pain (Rose Angina questionnaire) Secondary: Illness Perceptions (BIPQ); HRQol (SF12); HADS-A; PSYCHLOPS; Well-being scores (WEMBWBS); Functional status (Specific Activity Schedule); Moriskey Adherence scale; Social Problems Questionnaire Cost effectiveness Follow-up: 6 month intervention with 6 month follow-up	Improving interdisciplinary approach (multidisciplinary care); Patient-oriented approach (holistic assessment, individualized care plan); Case- or care management (care coordination)	<u>Depression (PHQ)</u> Int 12.6 (SD 7.1) Con 12 (SD 6. 9) Absol diff 0.6, Rel % diff 8% ns SES = 0.09 <u>Depression (HADS)</u> Int 9.5 (SD 4.6) Con 8.8 (SD 4. 8) Absol diff 0.7, Rel % diff 8% ns SES = 0.15 <u>Anxiety (HADS)</u> Int 9.9 (SD 7.1) Con 9.5 (SD 5. 4) Absol diff 0.4, Rel % diff 4% ns SES = 0.08 <u>Health-related Quality of Life (Physical subscale)</u> Int 32.4 (SD10.7) Con 33.3 (SD 9.2) Absol diff 0.7, Rel % diff 2%

Referentie	Type studie	Kenmerken (studie/ patiënten)	Interventie (I)	Controle (C)	Uitkomst maten en follow-up duur	Elementen organisatorische interventie	Resultaten
		Multimorbidity: Coronary heart disease (with current chest pain) and comorbid depression UK					ns SES = 0.07 <u>Health-related Quality of Life (Mental subscale)</u> Int 34.5 (SD11.6)Con 33.6 (SD 12.5) Absol diff 0.9 , Rel % diff 3% ns SES = 0.08 <u>Health-related Quality of Life (WEMWBS)</u> Int 40.6 (SD 11.2) Con 39.6(SD 12.3) Absol diff 1, Rel % diff 2.5% ns SES = 0.08 <u>Illness perceptions (BIPQ)</u> Int 40 (SD 14.8) Con 43(SD 31. 1) Absol diff 3, Rel % diff 7% ns SES = 0.22 <u>Patient-reported needs (PSYCHLOPS)</u> Int 13.6 (SD 5.1) Con 13.4 (SD 5.4) Absol diff 0.2, Rel % diff 1.5% ns SES = 0.04 Other outcomes not reported in Cochrane review.
Coventry, 2015 (Cochrane review)	Cluster RCT N=387	Inclusion criteria: Participants with depression and diabetes and/or ischaemic heart disease Primary care	N= 191 COINCIDE collaborative care model Stepped care protocols with:	N=196 Received usual care with referral to mental health services but no access to COINCIDE psychologists).	Primary: Depression (SCL-D13 scores) Secondary: Depression (PHQ9 scores) Anxiety (GAD scores) Social support (ENRICHID inventory)	Improving interdisciplinary approach (multidisciplinary care); Patient-oriented approach (individualized care plan; medication review); self-management support	<u>SCL-D13 depression score</u> Int 1.76 (SD 0.9) Con 2.02 (SD 0.9) Absol diff 2.6, Rel % diff 13% * SES = 0.28

Referentie	Type studie	Kenmerken (studie/ patiënten)	Interventie (I)	Controle (C)	Uitkomst maten en follow-up duur	Elementen organisatorische interventie	Resultaten
		Exclusion criteria: Nursing home residents and those enrolled in similar studies were excluded. Sex: Intervention group 59 % M / 41% F Control group 65 % M / 35% F Age: Intervention group 57.9 (SD 12.0) Control group 59.2 (SD 11.4) Multimorbidity: Participants with depression and diabetes and/or ischaemic heart disease, mean chronic conditions 6.2 UK	- Brief psychotherapy - up to 8 sessions - Standardised treatment manual and workbook with problem statement and personalised goals - At visit 2 and visit 8 had 10-minute joint consultation between participant, psychologist and practice nurse to link depression and chronic condition care with targets - Drug review with GP if needed - Training half-day workshop for clinicians with video and simulated patients - One hour weekly supervision for - Practice nurses from psychologist and monthly case meetings - Telephone support from trial psychiatrist		HRQol (WHO-QOL BREF, diabetes QOL) Seattle angina questionnaire Sheehan disability index Heath education (HEiQ) Illness beliefs (multimorbidity illness perceptions scale) Treatment satisfaction (CSQ) Process of care (PACIC scores) Follow-up: Intervention duration 3 months, follow-up at 4 months (1 month post intervention completion) NB. 22% of intervention participants never engaged with programme, mean 4.4 sessions attended		<u>PHQ9 depression score</u> Int 11.3 (SD 6.5) Con 13.1 (SD 6.5) Absol diff 1.8, Rel % diff 14% * SES = 0.28 <u>GAD-7 anxiety score</u> Int 8.2 (SD 5.8) Con 9.7 (SD 5. 9) Absol diff 1.5, Rel % diff 15% * SES = 0.26 <u>HRQoL (WHOQOL)</u> Int 2.99 (SD 0.6) Con 2.91 (SD 0.6) Absol diff 0.08, Rel % diff 3% * SES = 1.7 <u>Sheehan Disability Score</u> Int 5.73 (SD 2.8) Con 5.83 (SD 2.8) Absol diff 0.1, Rel % diff 2% * SES = 0.04 <u>Multimorbidity illness perception scale</u> Int 2.1 (SD0.9) Con 2.28 (SD0. 9) Absol diff 0.18, Rel % diff 8% ns SES = 0.2 <u>Social support (ESSI)</u> Int 3.29 (SD1.1) Con 3.4 (SD1. 0) Absol diff 0.11, Rel % diff 3% ns SES = 0.11

Referentie	Type studie	Kenmerken (studie/ patiënten)	Interventie (I)	Controle (C)	Uitkomst maten en follow-up duur	Elementen organisatorische interventie	Resultaten
							PACIC score Int 2.37 (SD 1.1) Con 1.98 (SD 1.0) Absol diff 0.39, Rel % diff 20% ns SES = 0.39
Krska, 2001 (Cochrane review)	RCT N=332	Inclusion criteria: Adults (aged 65 years or over) with at least 2 chronic conditions and taking at least 4 prescribed medications regularly Primary care Exclusion criteria: Dementia and being considered by the GP to be unable to cope with the study Sex: Intervention group 43.5 % M / 56.5% F Control group 34.4 % M / 64.6% F Age: Intervention group 74.8 (SD 6.2) Control group 75.2 (SD 6.6) Multimorbidity: At least 2 chronic conditions and taking at least 4 prescribed medications regularly UK	N= 168 Pharmaceutical care plan drawn up by a pharmacist based on medical records and participant interviews, and then implemented by the practice team	N=164 Received review of drug therapy by pharmacist but no pharmaceutical care plan implemented	Primary and secondary (no distinction specified): Pharmaceutical care issues (PCI scale) HRQoL (SF36 scores) Health service utilisation including GP and practice nurse contacts, OPD attendance, use of social services and hospital admissions Economic: direct monthly costs of prescribed medications per participant Follow-up: Study duration and follow-up 4 months	Patient-oriented approach (medication review); Case- or care management (care coordination)	% Pharmaceutical care issues resolved from baseline Int 950/1206 Con 542/1380 Absol diff 0.4, Rel % diff 102% * Mean cost of medicines Int: 38.83 Con: 42.61 Absol diff 3.78 Rel %diff 9% GBP in 2000 ns SES = 0.13

Martin, 2013 (Cochrane review) * Martin 2015	RCT N=66	Inclusion criteria: Patients with depression and headache (migraine (66%); and tension-type headache (33%)) Primary care Exclusion criteria: Individuals with substantial medical or psychiatric comorbidities, except major depressive disorder and anxiety disorders (however duo to time constraints limited completion of diagnostic assessment). Moreover, interfering with giving informed consent or benefiting from treatment (e.g., poor English, intellectual disability Sex: Intervention group 36.4 % M / 63.6% F Control group 33.3 % M / 66.7% F Age: Intervention group 40.83 (SD 14.32) Control group 40.19 (SD 12.89) Multimorbidity: Participants with depression and headache Australia	N= 30 Cognitive behavioural therapy programme for both depression and headache Twelve 50-minute weekly sessions incorporating pain- and lifestyle-management training Training for community psychologists Treatment manual (44 pages) Client handbook and relaxation CD	N=36 Received usual care and GPs asked not to refer to psychology but could use other mental health services	Primary: Depression (BDI and PHQ9 scores) Medication consumption Secondary: Anxiety (BDA scores) HRQoL (AQOL) Follow-up: Intervention 12 weeks with immediate follow-up. Additional follow-up at 4 months for intervention group only so data not used	Patient-oriented approach (individualized care plan); self-management support	PHQ9 depression score Int 6.7 (SD 4.6) Con 12.6 (SD 5. 3) Absol diff 5.9, Rel % diff 47% * SES = 1.18 BDI -Depression score Int 13.1 (SD 8.6) Con 28.7 (SD 9.5) Absol diff 15.6, Rel % diff 54% * SES = 1.73 BAI Anxiety score Int 10.5 (SD 10.8) Con 16.4 (SD 9.3) Absol diff 5.9, Rel % diff 36% * SES = 0.1 HRQol (AQOL) Int 26.3 (SD4.76) Con 28.4 (SD 4.97) Absol diff 2.1, Rel % diff 7 % * SES = 0.4 Mean daily medication use Int 2.4 (SD 3.2) Con 3.0 (SD 2. 8) Absol diff 0.6, Rel % diff 20% ns SES = 0.2		
Morgan, 2013 (Cochrane review)	Cluster RCT N=400	Inclusion criteria: Adults (18 years and over) with depression and diabetes and/or ischaemic heart disease	N= 206 TrueBlue collaborative care model - Practice nurse case manager	N= 194 Received usual care and offered intervention after 6 months	Primary: Depression (PHQ9 scores) Secondary: HRQoL: SF36 scores	Patient-oriented approach (individualized care plan, medication review); self-management support	PHQ9 depression score Int 7.1 (SD 0.8) Con 9.0 (SD 0. 9) Absol diff 1.9, Rel % diff 21% * SES = 2.24 Exercise (30 minutes/day for 5 days/ week)	Smith 2016: Unclear risk of bias (random sequence allocation; allocation concealment; blinding)	

		Primary care Exclusion criteria: Patients in residential care or under 18 years of age were excluded. Sex: Intervention group 54.8 % M / 48.2% F Control group 55.2 % M / 44.8% F Age: Intervention group 68.2 (SD 11.7) Control group 67.6 (SD 11.2) Multimorbidity: Patients with depression and diabetes and/or ischaemic heart disease Australia	- Reviews: 3 monthly 45-minute reviews with practice nurse covering lifestyle risk factors, review of results and support for self-management and goal setting; followed by 15-minute review with GP who stepped up treatment if needed - Individual care plans, copy held by participant - Educational resources and fact sheets - Practice nurse training, 2-day workshop		participant behaviours: exercise (30 min/day on 5 days/week, attending exercise programme, attending mental health programme Provider behaviour: referrals to mental health and to exercise programme Follow-up: Intervention duration 6 months with immediate follow-up and additional follow-up at 12 months for intervention group only (12 month data not included)		Int 97/162 Con 22/75 Absol diff 0.31, Rel % diff 106% * <u>% Referred to mental health</u> Int 58/162 Con 10/111 Absol diff 0.27, Rel % diff 300% * <u>%Referred to exercise programme</u> Int 58/162 Con 24/114 Absol diff 0.15, Rel % diff 71% *		
Wakefield 2012 (Cochrane review)	RCT N=302	Inclusion criteria: Adults with diabetes and hypertension Community Exclusion criteria: None specified Sex: 98 % M / 2 % F Age: 68 (SD 10) Multimorbidity: Patients with diabetes and hypertension USA	N= 377 Intervention 1: home telehealth with nurse case manager using high intensity treatment algorithms Intervention 2: home telehealth with nurse case manager using low intensity treatment algorithms Comparison: usual care in primary care clinic with access to PCP, endocrinologist, diabetes education and nurse manager (different to study nurse case manager)	N=404 Received usual care in primary care clinic with access to PCP, endocrinologist, diabetes education and nurse manager (different to study nurse case manager)	Primary: HbA1c and blood pressure Secondary: Medication adherence Knowledge scores Participant perception of the intervention Follow-up: Intervention duration 6 months, follow-up 6 months post intervention completion	Case- or care management (care coordination)	<u>Adherence (Edward's scale)</u> Int 3.4 (SD 0.5) Con 3.3 (SD 0.5) Absol diff 0.1, Rel % diff 3% ns SES = 0.2 <u>Medication Taking Adherence Score</u> Int 100 (SD 1.4) Con 98.9 (SD 6.0) Absol diff 1.1, Rel % diff 1% ns SES = 0.28	Smith 2016: Unclear risk of bias (random sequence generation; allocation concealment; blinding; protection against contamination)	
Bogner, 2008 (Cochrane review)	RCT (pilot) N=64	Inclusion criteria: Adults (aged 50-80 years) with depression and hypertension	N= 32 Participants were assigned an integrated care manager, who in 3x	N=32 Received usual care.	Primary and secondary (no distinction specified): Depression (CES-D)	Patient-oriented approach (individualized care plan); Case- or care management (care coordination); self-management support	<u>CES depression score</u> Int 9.9 (SD 10.7) Con 19.3 (SD 15.2) Absol diff 9.4, Rel % diff 49% * SES = 0.75		

		Primary care Exclusion criteria: Cognitive impairment, unable to communicate in English, resident in care facility and unable to use microelectronic monitoring device Sex: Intervention group 25.0 % M / 75.0% F Control group 21.9 % M / 78.1% F Age: Intervention group 59.7 (SD 7.3) Control group 57.5 (SD 6.3) Multimorbidity: patients with depression and hypertension USA	30 minute in-person sessions and 2x 15-minute telephone monitoring contacts: - collaborated with physicians to help participating patients recognize depression in the context of hypertension - offered the patients guideline-based treatment recommendation - monitored the patients' treatment adherence and clinical status - provided appropriate follow-up - provided education about depression and hypertension through in-person sessions and telephone conversations - offered encouragement and relief from stigma - helped to identify target symptoms for both conditions - explained the rationale for antidepressant and antihypertensive medication usage - assessed for side-effects and assisted in their management - monitored and responded to life-threatening symptoms		Blood pressure Adherence to antidepressant and antihypertensive medications (electronic-monitoring data from MEMS caps) Follow-up: 6 weeks		≥80% adherence to antidepressant medication (MEMS caps) Int 23/32 Con 10/32 Absol diff 0.41, Rel % diff 132% * ≥ 80% adherence to antihypertensive medication (MEMS caps) Int 25/32 Con 10/32 Absol diff 0.47, Rel % diff 152% *		
Salisbury, 2018 (original)	RCT N= 1.546	Inclusion criteria: General practices with: - at least two physicians - at least 4500 registered patients - EMIS electronic medical system	N = 797 Each 3D review consists of two appointments (with a nurse and then a named responsible physician, both	N= 749 Received usual care	Primary: health-related quality of life, measured using the EQ-5D-5L instrument Secondary: Illness burden: - Bayliss measure of how much	Improving interdisciplinary approach (multidisciplinary care); Patient-oriented approach (holistic assessment, individualized care plan, medication review); Case- or care management (care coordination); self-management support	HRQoL Adjusted difference in means (95% CI); p-value 0·00 (–0·02 to 0·02); p=0·93 *Illness burden* Bayliss measure of how much illness affects the individual's life Adjusted difference in means (95% CI); p-value		

		Patients with: - At least three of the 17 major chronic conditions from those included in the UK Quality and Outcomes Framework (QOF) pay-for-performance programme - Age 18 years or over Primary care Exclusion criteria: - Life expectancy < 12 months - Serious suicidal risk - Known to be leaving the practice within 12 months - Unable to complete questionnaires in English - Taking part in another health-care research project - lacked the capacity to give consent - if GP deemed them unsuitable to be invited for other reasons Sex: Intervention group 49 % M / 51% F Control group 50 % M / 50% F Age: Intervention group 71.0 (SD 11.6) Control group 70.7 (SD 11.4) Multimorbidity: At least three chronic conditions from defined list UK	existing members of practice staff) and a records-based medication review by a pharmacist. The appointment letter asks the patient to think about the health problems that bother them most. The nurse focuses on identifying the health problems most important to the patient; asking about pain, function, and quality of life; screening for depression and dementia; and then addressing the disease-specific care the patient requires. Findings are printed as a patient held agenda to inform the subsequent consultation with the doctor. The pharmacist uses the patient's electronic medical records to review medication, and makes recommendations about simplifying and optimising treatment. The physician considers the nurse and pharmacist reviews, discusses treatment adherence, and agrees on a collaborative health plan with the patient. The patient is given a printed copy of the plan, which specifies how the patient and clinicians will address the agreed goals over the next 6 months through routine		illness affects the individual's life - Hospital Anxiety and Depression score <u>Treatment burden:</u> - Multimorbidity Treatment Burden Score - Morisky Medication Adherence eight-item score - Number of different drugs <u>Patient-centered care</u> - Patient Assessment of Care for Chronic Conditions (PACIC) measure - the Consultation and Relational Empathy (CARE) measure of relational empathy - single questions (adapted from the NHS Long Term Conditions 6 questionnaire and the NHS General Practice Patient Survey <u>Key care processes</u> - continuity of care using the Continuity of Care index - Visit Entropy measure - numbers of consultations in both primary and secondary care - a summary of disease-specific measures (including measures of disease management and disease control) by measuring the		–0·64 (–1·54 to 0·27); p=0·17 <u>Mean HADS anxiety score</u> Adjusted difference in means (95% CI); p-value –0·24 (–0·57 to 0·08); p=0·15 <u>Mean HADS depression score</u> Adjusted difference in means (95% CI); p-value –0·01 (–0·33 to 0·30); p=0·94 *Treatment burden* <u>Mean Multimorbidity Treatment Burden Score</u> Adjusted difference in means (95% CI); p-value –0·46 (–1·78 to 0·86); p=0·49 <u>Mean Morisky Medication Adherence eight-item score</u> Adjusted difference in means (95% CI); p-value 0·06 (–0·05 to 0·17); p=0·27 <u>Median number of different drugs</u> Adjusted Incidence Rate Ratio (95% CI); p-value 1·02 (0·97 to 1·06); p=0·46 *Patient-centered care* <u>Mean PACIC score</u> Adjusted difference in means (95% CI); p-value 0·29 (0·16 to 0·41); p<0·0001 <u>Mean CARE doctor score</u> Adjusted difference in means (95% CI); p-value 1·20 (0·28 to 2·13); p=0·0109 <u>Mean CARE nurse score</u> Adjusted difference in means (95% CI); p-value 1·11 (0·03 to 2·19); p=0·044 <u>Patients reporting they almost always discuss the problems most important to them in managing their own health</u> Adjusted OR (95% CI); p-value 1·85 (1·44 to 2·38); p<0·0001 <u>Patients reporting that support and care is almost always joined-up</u> Adjusted OR (95% CI); p-value 1·48 (1·18 to 1·85); p=0·0006		

			consultations.		proportion of UK Quality and Outcomes Framework chronic disease targets applicable to each patient that were met - number of indicators of high-risk prescribing for each patient using an approach developed for a previous trial - cost-effectiveness and carer experience were prespecified outcomes but were be reported separately, as will a parallel qualitative process assessment.		<u>Patients reporting being very satisfied with care</u> Adjusted OR (95% CI); p-value 1·57 (1·19 to 2·08); p=0·0014 <u>Patients reporting having a written care plan, health plan, or treatment plan</u> Adjusted OR (95% CI); p-value 1·97 (1·32 to 2·95); p=0·0010 *Key care processes* <u>Mean Continuity of Care Index</u> Adjusted difference (95% CI); p vacourtlue 0·08 (0·02 to 0·13); p=0·0045 <u>Mean Visit Entropy</u> Adjusted difference (95% CI); p value - 8·76 (–18·07 to 0·55); p=0·07 <u>Mean number of QOF indicators met (quality of disease management)</u> Adjusted difference (95% CI); p value 0·41 (–3·05 to 3·87); p=0·82 <u>Median number of indicators of high-risk prescribing</u> Adjusted difference (95% CI); p value 1·04 (0·87 to 1·25); p=0·68 <u>Median number of primary care physician consultations</u> Adjusted difference (95% CI); p value 1·13 (1·02 to 1·25); p=0·0209 <u>Median number of nurse consultations</u> Adjusted difference (95% CI); p value 1·37 (1·17 to 1·61); p=0·0001 <u>Median number of hospital admissions</u> Adjusted difference (95% CI); p value 1·04 (0·84 to 1·30); p=0·71 <u>Median number of hospital outpatient attendances</u> Adjusted difference (95% CI); p value 1·02 (0·92 to 1·14); p=0·72		

*randomisatie: De randomisatie moet volledig onvoorspelbaar zijn, bijvoorbeeld computergestuurd of door middel van een extern trialbureau. Ontoereikende vormen van randomisatie zijn alterneren (om en om toewijzen) en toewijzing op grond van dossiernummer of geboortedatum.
* toewijzing verborgen (allocation concealment): refereert aan het geheimhouden of blinderen van de toewijzing van patiënten aan de verschillende onderzoeksgroepen in een RCT. Dit betekent dat degene die de groepen indeelt bijvoorbeeld door het uitdelen van de omslagen) niet op de hoogte is van de inhoud van de omslag en dat de codering niet te achterhalen is.
* blindering: Blindering van de patiënt en de behandelaarr betekent dat beiden niet weten welke behandeling de patiënt krijgt. Blinderen is echter niet altijd mogelijk, denk bijvoorbeeld aan een operatie versus medicamenteuze therapie. De effectbeoordelaar is degene die de resultaten van de studie beoordeelt. Met blindering van de effectbeoordelaar(s) wordt voorkomen dat de effecten van de interventie- en controlebehandeling verschillend worden beoordeeld (informatiebias). Heeft de studie harde uitkomstmaten (zoals sterfte), dan is een geblindeerde uitkomstmeting niet nodig. Heeft de studie als uitkomstmaat een zachtere (subjectieve) parameter, bijvoorbeeld de mate van een afwijking op een röntgenfoto, dan is blindering zeker nodig.
* intention-to-treat: Elke patiënt moet geanalyseerd worden in de groep waarin hij gerandomiseerd was, wat er ook verder met de patiënt gebeurt (bijvoorbeeld beëindigen studiemedicatie). Dit heet een analyse volgens het 'intention to treat' principe. Alleen op deze manier wordt de validiteit van de randomisatie niet aangetast.