

Assessment tool

Bias domain	Source of bias	Support for judgement	Review authors' judgement (asses as low, unclear or high risk of bias)
Selection bias	Random sequence generation	Describe the method used to generate the allocation sequence in sufficient detail to allow an assessment of whether it should produce comparable groups	Selection bias (biased allocation to interventions) due to inadequate generation of a randomised sequence
	Allocation concealment	Describe the method used to conceal the allocation sequence in sufficient detail to determine whether intervention allocations could have been foreseen before or during enrolment	Selection bias (biased allocation to interventions) due to inadequate concealment of allocations before assignment
Performance bias	Blinding of participants and personnel	Describe all measures used, if any, to blind trial participants and researchers from knowledge of which intervention a participant received. Provide any information relating to whether the intended blinding was effective	Performance bias due to knowledge of the allocated interventions by participants and personnel during the study
Detection bias	Blinding of outcome assessment	Describe all measures used, if any, to blind outcome assessment from knowledge of which intervention a participant received. Provide any information relating to whether the intended blinding was effective	Detection bias due to knowledge of the allocated interventions by outcome assessment
Attrition bias	Incomplete outcome data	Describe the completeness of outcome data for each main outcome, including attrition and exclusions from the analysis. State whether attrition and exclusions were reported, the numbers in each intervention group (compared with total randomised participants), reasons for attrition or exclusions where reported, and any reinclusions in analyses for the review	Attrition bias due to amount, nature, or handling of incomplete outcome data
Reporting bias	Selective reporting	State how selective outcome reporting was examined and what was found	Reporting bias due to selective outcome reporting
Other bias	Anything else, ideally pre-specified	State any important concerns about bias not covered in the other Bias due to problems not covered elsewhere domains in the tool	

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	"Simple random sampling was used for patients' allocation either in the intervention or control group."	Low
	Allocation concealment	Not described.	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention.	Low
Detection bias	Blinding of outcome assessment	Insufficient information given.	Unclear
Attrition bias	Incomplete outcome data	High percentage of drop outs that were excluded.	Unclear
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Patients were randomized via a 'computerized coin-flip' built into the screener.	Low
	Allocation concealment	Computerized.	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention.	High
Detection bias	Blinding of outcome assessment	Insufficient information given.	Unclear
Attrition bias	Incomplete outcome data	Drop-out were excluded from the results, but considered for potential bias.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Using a sealed envelope technique the patients were randomly assigned to either intervention or control group.	Low
	Allocation concealment	Sealed envelopes	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not blinded	High
Attrition bias	Incomplete outcome data	Not including data from drop outs. Not considering the risk of bias.	Unclear
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Randomising patients sequentially by day of recruitment into three groups.	High
	Allocation concealment	Based on day of the week	High
Performance bias	Blinding of participants and personnel	The randomisation key was concealed from the interviewer, but due to the design of the intervention the patients or the pharmacist could not be blinded.	High
Detection bias	Blinding of outcome assessment	Follow up interviewer was blinded to the randomization.	Low
Attrition bias	Incomplete outcome data	Drop outs were not included in the results, but demographics compared with non-drop-outs to investigate bias.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	Significantly, 66% (P = 0.004) of the control group patients dropped out from the study after at least 6 weeks of treatment compared to 42% of the leaflets and 34% of the counselling groups	

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Patients were randomised sequentially by day of recruitment into a control and two treatment groups.	High
	Allocation concealment	By day of the week	High
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Same person who did the recruitment that conducted the follow up interviews.	High
Attrition bias	Incomplete outcome data	The effect of the educational interventions on adherence after 2 months and after 5 months has been calculated on an intention-to-treat basis using the control group as a reference. Not described for the other outcomes.	Unclear
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Restricted randomization with both groups being matched as closely as possible for gender and presence of hypertension.	Low
	Allocation concealment	Insufficient information given	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	No information given on blindness of pharmacy staff, but standard protocol for questionnaire administration was used.	Unclear
Attrition bias	Incomplete outcome data	Drop outs were not included in the results, but demographics compared with non-drop-outs to investigate potential bias.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Group allocation codes were prepared before trial initiation using a random number table	Low
	Allocation concealment	The codes were kept in sealed envelopes and opened sequentially for every new subject.	Low
Performance bias	Blinding of participants and personnel	Neither the subjects nor the researcher was blinded to the intervention.	High
Detection bias	Blinding of outcome assessment	Same pharmacist who did the first interview, conducted the follow up calls	High
Attrition bias	Incomplete outcome data	One patient died, and that data was excluded.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Aragones *et al.* 2010

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Randomization of physicians was performed by computer before patient recruitment.	Low
	Allocation concealment	Computerized	Low
Performance bias	Blinding of participants and personnel	Patients were blind to their physician's randomization, but due to the design of the intervention the physicians were not blinded.	Unclear
Detection bias	Blinding of outcome assessment	A research assistant, not involved in patient recruitment and blind to the randomization assignment, reviewed electronic medical records 3 months after the index visit to determine the primary outcome	Low
Attrition bias	Incomplete outcome data	Drop-out physicians were excluded, but their characteristics were compared with the study physicians and were shown to be similar. No patients were dropped after consenting to participate.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Randomization was carried out using a pre-printed number list, conducted by two of the researchers.	Low
	Allocation concealment	Not concealed	High
Performance bias	Blinding of participants and personnel	Neither pharmacists nor patients were blinded to their randomization group.	High
Detection bias	Blinding of outcome assessment	Insufficient information given	Unclear
Attrition bias	Incomplete outcome data	A post hoc analysis was also performed for the primary outcome measure (asthma control category) on those patients who failed to complete the study. In this case, their baseline level of control was carried forward.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Randomization at pharmacist level, but no further information regarding the method used.	Unclear
	Allocation concealment	Insufficient information given.	Unclear
Performance bias	Blinding of participants and personnel	Pharmacists were not blinded due to the design of the intervention. No information regarding blindness of patients or doctors.	High
Detection bias	Blinding of outcome assessment	Knowledge of drug purpose was assessed by blinded pharmacists. Other knowledge parameters were assessed through the doctors passed on to the pharmacists. No information given if the doctors were blinded or not.	Low
Attrition bias	Incomplete outcome data	Drop outs were not included in the results, but demographics compared with non-drop-outs to investigate potential bias.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Insufficient information given	Unclear
	Allocation concealment	Insufficient information given	Unclear
Performance bias	Blinding of participants and personnel	Insufficient information given	Unclear
Detection bias	Blinding of outcome assessment	Insufficient information given	Unclear
Attrition bias	Incomplete outcome data	Insufficient information given	Unclear
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Pharmacies were randomly allocated to intervention and control groups at the training workshop. No further information given.	Unclear
	Allocation concealment	Insufficient information given	Unclear
Performance bias	Blinding of participants and personnel	Nor possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Drop outs were not included in the results, but demographics compared with non-drop-outs to investigate potential bias.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Randomization was stratified by pharmacy in balanced blocks of 10 patients (1:1 ratio) using a computer-generated random-number table and provided to the pharmacist investigators in sealed envelopes identified by patient number. Patients were randomized sequentially by patient number.	Low
	Allocation concealment	Computerized (sealed envelopes)	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Final telephone follow up call was conducted by a pharmacist blinded to the patients' assignment group.	Low
Attrition bias	Incomplete outcome data	Drop outs were not included in the results, but demographics compared with non-drop-outs to investigate potential bias.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Randomization on physician level. "The physicians were randomly assigned within each level of experience to two intervention groups and a control group". No further information given.	Unclear
	Allocation concealment	Insufficient information given	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Insufficient information given	Unclear
Attrition bias	Incomplete outcome data	Results both with and without patients who already followed the screening recommendations were presented.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Blenkinsopp *et al.* 2000

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	"At the end of the training workshop pharmacists were randomised sequentially to intervention or control sites." No further information given.	Unclear
	Allocation concealment	No information given	Unclear
Performance bias	Blinding of participants and personnel	Not possible for pharmacists to be blinded due to the design of the intervention. No information given on blinding patients.	High
Detection bias	Blinding of outcome assessment	For post-study BP readings: "A clinical pharmacologist and a GP advised on the allocation of patients to these categories; they were blind to the patient groups and did not know which patients was intervention or control." No information regarding adherence or patient satisfaction measurements, other than made by questionnaires.	Unclear
Attrition bias	Incomplete outcome data	Insufficient information given	Unclear
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Bouvy *et al.* 2003

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	"randomly allocated patients, using a computer-generated randomization scheme"	Low
	Allocation concealment	Computerized	Low
Performance bias	Blinding of participants and personnel	"Patient's pharmacy and general practitioner (GP) were notified of their (the patients) participation in the study."	High
Detection bias	Blinding of outcome assessment	"The MEMS container was filled by the patient's regular pharmacy. At the end of followup, containers were collected by pharmacists and sent in for computer-based reading and evaluation."	Low
Attrition bias	Incomplete outcome data	"All analyses were done on an intention-to-treat basis."	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Braun *et al.* 2005

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	"Of the 16 participating clubs, eight were located in urban areas and eight were located in rural areas, and randomization was done for each stratum by coin toss."	High
	Allocation concealment		Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Insufficient information given	Unclear
Attrition bias	Incomplete outcome data	Do not mention anything about taking the drop outs in consideration for potential bias	High
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Calvert *et al.* 2012

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	"Patients were randomized to the intervention or usual care arm in a 1:1 ratio using a computer-generated random number sequence and with treatment codes placed in sealed envelopes."	Low
	Allocation concealment	Computerized, sealed envelopes	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention.	High
Detection bias	Blinding of outcome assessment	Pharmacist who carried out the follow up was blinded.	Low
Attrition bias	Incomplete outcome data	Insufficient information given	Unclear
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	Those patients who declined were significantly older than participants (median age 69 vs 62 years, respectively, P = .003).	

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	"41 were randomized to EC and 33 to UC." No further information given.	Unclear
	Allocation concealment	Insufficient information given	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Insufficient information given	Unclear
Attrition bias	Incomplete outcome data	"All EC patients were included in the analyses, regardless of whether they completed the interventions."	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	At baseline, more of the patients in the EC group had been diagnosed with major depression (DSM-IV) than in the UC group (P=0.04).	

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	"Randomization of clinics was performed using a table of random numbers."	Low
	Allocation concealment		Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	"Individual data elements were double-entered into a database by a blinded data management team that included data technicians, the data manager, and the biostatistician."	Low
Attrition bias	Incomplete outcome data	Performing an intention-to-treat analysis	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	Difference in baseline adherence between Intervention and control groups	

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	The randomization codes— intervention group (1) or control group (0)— were computer generated and sealed in envelopes labelled with consecutive numbers. The envelopes were opened in the clinic in an ascending manner by the pharmacist, and patients were randomized into either intervention group or control group.	Low
	Allocation concealment	Computerized. Sealed envelopes. The pharmacist was blinded to the randomization codes.	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	“Pharmacist used a standard questionnaire to assess the drug and disease knowledge of the patients, and questions were asked in the same manner to all patients”. But not blinded.	High
Attrition bias	Incomplete outcome data	All patients completed the study	Low
Reporting bias	Selective reporting	Changes in serum HDL-C, TG, total cholesterol, systolic blood pressure (SBP), and diastolic blood pressure (DBP) and the body mass index were not compared between the groups.	Unclear
Other bias	Anything else, ideally pre-specified	n/a	

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	No information given	Unclear
	Allocation concealment	No information given	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention.	High
Detection bias	Blinding of outcome assessment	Not blinded but measured with objective methods	Unclear
Attrition bias	Incomplete outcome data	All patients completed the study	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Choe *et al.* 2005

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Stratified randomization based on HbA1c levels. Randomization within each stratum was simple: because the study was small, randomization was done by hand, drawing numbers from a container that included "0" for the control group or "1" for the intervention group.	High
	Allocation concealment	Not concealed	High
Performance bias	Blinding of participants and personnel	Given the nature of the intervention, patients, providers, and the case manager were not blinded to the intervention.	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	All analyses were performed based on intention to treat	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Clark *et al.* 2007

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	No information given	Unclear
	Allocation concealment	No information given	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention.	High
Detection bias	Blinding of outcome assessment	The same clinical pharmacist acted as investigator, observer, and educator throughout the study.	High
Attrition bias	Incomplete outcome data	All patients seem to have completed the study	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Clifford *et al.* 2006

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Randomisation was by the pharmacist giving a sealed envelope to the patients, this contained their treatment group; the pharmacist was blind to the contents and took no further part in proceedings.	Low
	Allocation concealment	Concealed (sealed envelope)	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention.	High
Detection bias	Blinding of outcome assessment	Insufficient information given	Unclear
Attrition bias	Incomplete outcome data	Drop-outs were much more frequent than expected, leaving the study under powered.	High
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Cordina *et al.* 2001

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not specified	Unclear
	Allocation concealment	Not specified	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention.	High
Detection bias	Blinding of outcome assessment	Done by the study co-ordinator. Not described if he/she was blinded or not.	Unclear
Attrition bias	Incomplete outcome data	20% dropouts. Analysis of baseline scores for the SF-36 dimensions showed no significant difference ($P>0.05$) between the control patients who dropped out and their counterparts. In case of the intervention patients, the same pattern was observed, with the exceptions of physical functioning, vitality and bodily pain. These dimensions were significantly higher at baseline in dropouts compared to their counterparts.	Unclear
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	The number of men was significantly lower in the intervention group ($P=0.035$). The intervention group also had significantly lower mean age than the control group ($P=0.03$).	

Criswell *et al.* 2010

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	No information given	Unclear
	Allocation concealment	No information given	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention.	High
Detection bias	Blinding of outcome assessment	No information given	Unclear
Attrition bias	Incomplete outcome data	No dropouts mentioned. All patients seem to have completed the study.	Low
Reporting bias	Selective reporting	None identified.	Low
Other bias	Anything else, ideally pre-specified	Patients in the control group were significantly more likely to have a higher number of comorbid conditions ($P < 0.0001$). The intervention group had a higher baseline blood pressure than the control group ($P = 0.007$ for systolic and $P = 0.0149$ for diastolic).	

De Tullio *et al.* 1987

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	"Patients who were identified over an eight-month period were randomly assigned to an experimental or control group based upon whether the last number of their Social Security number was odd or even."	High
	Allocation concealment	Not concealed	High
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention.	High
Detection bias	Blinding of outcome assessment	Insufficient information given	Unclear
Attrition bias	Incomplete outcome data	"Unfortunately, complete refill information was not available for 16 patients (9 counselled and 7 non-counselled). As a check for bias, these patients were compared with the 44 patients whose refill records were complete on the patient and medication therapy characteristics identified plus theophylline levels and alp ratio. The two groups differed only in the number of daily scheduled doses with the 16 patients taking more doses of medication per day (3.4 VS. 3.0, $P = 0.05$)."	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	Significantly more patients in the control group taking sustained-release theophylline.	

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	"Randomisation was by the pharmacist giving a sealed envelope to the patients, this contained their treatment group"	Low
	Allocation concealment	The pharmacist was blind to the contents of the envelopes.	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention.	High
Detection bias	Blinding of outcome assessment	Insufficient information given	Unclear
Attrition bias	Incomplete outcome data	"The response rates to the questionnaires were 72% (intervention) and 66% (control)." "This substantial loss to follow-up could affect internal validity, and reduced power to detect statistically significant differences in cost. Those patients who were lost to follow up did not have significantly different demographics (age, sex, comorbidities, work status, prescription payment status) or 4-week adherence from those patients included in the economic analysis."	Low
Reporting bias	Selective reporting	"Adherence at 4 weeks was assumed to remain unchanged at 2 months, when the cost data were collected."	Unclear
Other bias	Anything else, ideally pre-specified	n/a	

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	"Randomly assigned to either the intervention or control group by a procedure that was built into the computer system and used a set of random numbers in a 1:1 ratio."	Low
	Allocation concealment	Computerized	Low
Performance bias	Blinding of participants and personnel	Open-label. Participants and those administering the interventions were not blinded to the treatment assignment.	High
Detection bias	Blinding of outcome assessment	"Those assessing differences in outcomes between the pharmaceutical care and usual care groups remained blinded throughout the study."	Low
Attrition bias	Incomplete outcome data	14 % dropouts in the intervention group, but all patients' characteristics were compared and commented.	Unclear

Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	Significantly more patients in the usual care group had a history of CVD, and those in the usual care group classified their health status more often as moderate/poor. Significantly more patients in the pharmaceutical care group were prescribed atorvastatin, whereas fewer pharmaceutical care patients were prescribed rosuvastatin.	

Evans *et al.* 2010

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Randomization lists were stratified by each physician and were created by using a table of random numbers in permuted blocks of 4. Randomization codes were kept in individually sealed envelopes and opened by the study pharmacist at the end of the initial visit.	Low
	Allocation concealment	Concealed (sealed envelopes)	Low
Performance bias	Blinding of participants and personnel	No attempt was made to blind any of the participants in the study.	High
Detection bias	Blinding of outcome assessment	Not blinded	High
Attrition bias	Incomplete outcome data	All analyses were conducted with use of intent-to-treat.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Farber and Oliveira, 2004

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	"Random group assignments were generated and were placed in sequentially numbered opaque (manila) envelopes by someone not associated with the study."	Low
	Allocation concealment	Envelopes were not opened to reveal group assignments until informed consent was obtained and enrolment (baseline) interviews were completed."	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention.	High
Detection bias	Blinding of outcome assessment	"The telephone interviewer was blinded as to study group assignment."	Low

Attrition bias	Incomplete outcome data	“All data were analysed as intent to treat.”	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Faulkner *et al.* 2000

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Randomised using a computer-generated list of random numbers	Low
	Allocation concealment	Computerized	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention.	High
Detection bias	Blinding of outcome assessment	Insufficient information given	Unclear
Attrition bias	Incomplete outcome data	No patients lost to follow up	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Finley *et al.* 2003

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Sealed envelopes	Low
	Allocation concealment	Envelopes were opened after the patients had finished a brief initial survey.	Low
Performance bias	Blinding of participants and personnel	No blinding	High
Detection bias	Blinding of outcome assessment	Insufficient information given	Unclear
Attrition bias	Incomplete outcome data	Drug adherence values were compared in an intent-to-treat fashion. The other outcomes were not.	Unclear
Reporting bias	Selective reporting	Not identified	Low

Other bias	Anything else, ideally pre-specified	n/a
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Garcia-Cardenas *et al.* 2013

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	"Pharmacies were the unit of randomization and were assigned by an independent researcher after they agreed to participate in the study to either intervention (IG) or control group (CG) using a computer-generated list of random numbers with ratio 1:1. Cluster randomization was used to minimize cross-contamination."	Low
	Allocation concealment	Computerized list, after agreeing to participate	Low
Performance bias	Blinding of participants and personnel	"Given the nature of the intervention pharmacists or patients could not be blinded."	High
Detection bias	Blinding of outcome assessment	Insufficient information given	Unclear
Attrition bias	Incomplete outcome data	"This analysis was repeated using an intention to treat approach (ITT) assuming a worst-case scenario (patients in the CG ended with controlled asthma and patient in the IG ended with uncontrolled asthma) for patients with missing outcomes data."	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	Percentage of uncontrolled patients, mean number of anti-asthmatic drugs and percentage of patients living in an urban area were significantly higher in the intervention group (P=0.005, P=0.038 and P<0.001 respectively).	

Garnett *et al.* 1981

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Stepwise coin-toss, 101 patients.	Low
	Allocation concealment	Concealed in the first step, but unclear in the second step.	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	No information given	Unclear
Attrition bias	Incomplete outcome data	Ca. 20% dropouts. Not taken in consideration, just mentioned.	High

Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Geurtz *et al.* 2010

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	When patients were included according to the inclusion criteria they were randomised by the pharmacy computer system in the intervention or control group. Patients with an even number were included in the intervention group; patients with an odd number were included in the control group.	Low
	Allocation concealment	Computerized	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Insufficient information given	Unclear
Attrition bias	Incomplete outcome data	“The response rate for the patient questionnaire was 45% in the intervention group and 41% in the control group. Patients who did not return the questionnaire were excluded”. “Only the questionnaires from patients who filled in the right drug name were analysed.” Not mentioned further in the results.	High
Reporting bias	Selective reporting	Results from questionnaire regarding patient satisfaction were missing. And a lot of the results seem to be excluded for different reasons.	High
Other bias	Anything else, ideally pre-specified	n/a	

Grant *et al.* 2003

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	No information given	Unclear
	Allocation concealment	No information given	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	No information given	Unclear

Attrition bias	Incomplete outcome data	Results of the dropouts were not mentioned	High
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	Among the subset of patients completing the study, control patients were somewhat older than intervention patients but otherwise very similar.	

Gymonpre *et al.* 2001

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	"Using a computer generated randomisation list, clients were assigned to either a test or control group."	Low
	Allocation concealment	Concealed "All clients were informed, in a letter, of their allocation"	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Only 73% of the patients completed the study. Results of dropouts were not mentioned.	High
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Hamann *et al.* 2007

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Insufficient information given	Unclear
Attrition bias	Incomplete outcome data	"there were no differences between dropouts of the intervention or control groups with respect to patients' age, gender, duration of illness, or PANSS score at discharge (6- and 18-month data, $P>0.05$).	Low

Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Hanlon *et al.* 1996

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	208 remaining patients were randomized to either the control or intervention group using a computer-generated scheme.	Low
	Allocation concealment	Not concealed	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Closeout telephone interviews were conducted 11.5 to 13 months after randomization by another clinical pharmacist blinded to group assignment.	Low
Attrition bias	Incomplete outcome data	An 'intention to treat" approach was utilized and thus all patients were retained in the analyses.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Hawkins *et al.* 1979

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	High rate of dropouts	High
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	The control group contained a higher percentage of patients with hypertension as an only diagnosis. A higher percentage of intervention patients had both hypertension and diabetes.	

Hederos *et al.* 2005

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	“The nurses carried out the randomization and the three doctors that were involved in the group sessions also performed the follow-up visits. Therefore, a complete blinding procedure could not be established.”	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	“The follow-up rate was thus 86% in the control group, 91% in the intervention group and 88% for the total cohort after 18 mo. The groups were well matched except for pet ownership.”	Unclear
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	In the intervention group, 47% of the children had animals at home compared to only 18% in the control group.	

Heisler *et al.* 2012

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	intention-to-treat analyses	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Holland *et al.* 2007

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	"We used third party telephone randomisation based on a computer generated random allocation sequence. We stratified randomisation by New York Heart Association class (class I/II—no or mild limitation, III—moderate limitation, or IV— severe limitation) and recruitment site."	Low
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	The nature of the intervention meant that no clear "placebo" could be provided. Participants were told after randomisation which group they were in. Those in the control group received usual care.	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Quite high rate of dropouts that are not mentioned in the results	High
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	Intervention participants more often used some form of drug adherence aid (27% v 16%).	

Hunt *et al.* 2008

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	At the time consent was received by research staff, subjects were randomly assigned, with equal allocation and without restrictions, to intervention or control using a computer-generated random sequence.	Low
	Allocation concealment	Computerized	Low
Performance bias	Blinding of participants and personnel	Based on the nature of the intervention, participant blinding was not possible.	High
Detection bias	Blinding of outcome assessment	At study end, subjects attended open clinic sessions in which blood pressure was assessed by registered nurses blinded to subjects' randomization allocation.	Low
		Patient self-management knowledge and behaviour measures were assessed by a self-administered questionnaire completed at baseline and exit study visit.	
		Assessment of medication adherence consisted of four validated patient self-reported questions.	
		Healthcare utilization information was collected by chart audit during the period of time from subject consent through the date of the exit visit.	
		Subjects' health status was evaluated at the exit visit using the Medical Outcomes Study SF-36 survey	

		reporting scaled results for the eight domains, as well as physical and mental health composite scores.	
Attrition bias	Incomplete outcome data	Of subjects unavailable at the exit visit, all had documented blood pressures in the chart, with the exception of seven subjects (n=4 control; n=3 intervention), in which case the last clinic blood pressures were carried forward. Detailed analyses published elsewhere demonstrate that the groups remained comparable despite withdrawal.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	Intervention patients had a greater history of stroke than the control patients.	

Iram *et al.* 2010

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Chit method	Low
	Allocation concealment	Chit method	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	HbA1c was only tested on 25 (16 intervention and 9 control) out of 98 (53 intervention and 45 control) patients due to financial constraints.	High
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Jacobs *et al.* 2012

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Eligible patients were randomized to either an intervention or control group using a computer randomized sequence of ones and zeroes.	Low
	Allocation concealment	Computerized, but made before enrolment.	Unclear
Performance bias	Blinding of participants and personnel	Primary care physicians were unaware of which patients were randomized to the control group, but were informed of which were in the intervention	High

		group, due to approval requirements. Not possible to blind patients.	
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	No dropouts mentioned. Seem like no patients were lost to follow up.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	Mean BMI values were slightly higher larger in the intervention group at baseline than for patients in the control group ($P<0.05$).	

Jarab *et al.* 2012

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Study participants were randomly assigned to intervention and control groups via a minimisation technique using MINIM software	Low
	Allocation concealment	Concealed	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Low dropout rate (only 6 patients)	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Jarab *et al.* 2012

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Study participants were randomly assigned to intervention and control groups via a minimization technique using Minim software	Low
	Allocation concealment	Concealed	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High

Detection bias	Blinding of outcome assessment	Performed by the researchers. Not described if they're blinded or not.	Unclear
Attrition bias	Incomplete outcome data	Number of 15 patients dropped out (total 171 patients). Demographics compared for all 171 showed no differences.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Kelly *et al.* 1988

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Sealed envelopes were given to the physicians to open at random after identifying a patient who fit the study guidelines.	Low
	Allocation concealment	Concealed	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	6 patients out of 44 were excluded. These were not commented further.	Unclear
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Klein *et al.* 2009

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High

Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	18% dropouts. Demographics were compared for all patients, and no differences were found.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Kumar *et al.* 2009

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Low dropout rate	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Lai *et al.* 2011

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	This study used a stratified block randomization design to ensure that the number of participants on alendronate and risedronate in the control and intervention group were the same. Therefore, participants were first divided into whether they were on alendronate or risedronate, and then randomly allocated to the intervention group using the random digits table, while the rest were allocated to the control group.	Low
	Allocation concealment	Not described	Unclear

Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	An independent research assistant collected the data on medication adherence to minimize pharmacist interaction with control participants and to reduce intervention bias.	Low
Attrition bias	Incomplete outcome data	About 10 % dropouts. Demographics compared, and no significant differences found.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Lantz *et al.* 1995

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Randomly assigned to an intervention or control group based on the penultimate digit of their medical history number.	High
	Allocation concealment	Not concealed	High
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Ten per cent (n = 33) of women assigned to the intervention group were deemed inappropriate study subjects by their physicians and therefore did not receive the intervention. These women were included in the analysis, however, since similar criteria for exclusion could not be identified among women in the control group.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Lee *et al.* 1999

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Patients were randomized at each health centre by the study pharmacist to either the control group or the ECP group my means of sealed envelopes.	Low
	Allocation concealment	Concealed (sealed envelopes)	Low

Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention.	High
Detection bias	Blinding of outcome assessment	Not blinded	High
Attrition bias	Incomplete outcome data	Two intention-to-treat analyses were performed	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Lee *et al.* 2004

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Patients were assigned either to the individualized group or control group based on alternating days of the week in which they were seen at the hospital clinic.	High
	Allocation concealment	Not concealed. Depending on day of the week	High
Performance bias	Blinding of participants and personnel	The physicians were blinded so that they did not know the group assignment of each patient, and both groups received the same standard medical care. The pharmacist and patients could not be blinded due to the design of the intervention.	High
Detection bias	Blinding of outcome assessment	Lipid levels were measured by the same pharmacist, but the rest is not described.	Unclear
Attrition bias	Incomplete outcome data	Nine dropouts. Not mentioned further, or taken in consideration.	High
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Lim *et al.* 2004

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	All eligible patients were randomly assigned into intervention or control groups using computer-generated numbers and in blocks of 2.	Low
	Allocation concealment	Randomisation was carried out before consent following Zelen's design (reference), as compared to the conventional design of consent-randomisation. This to minimise the Hawthorne effect in the control	Unclear

		group and to reduce disappointment bias which can significantly affect endpoints such as knowledge, compliance and perception.	
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Blinded investigator	Low
Attrition bias	Incomplete outcome data	There was a dropout rate of 20.6%. All patients' demographics were compared and there were no differences between the groups.	Unclear
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	Patients in the intervention group were more likely to visit their physician (P=0.08) and relied more on taking medications according to mealtimes (P=0.06) than the control group at baseline. A greater percentage of patients in the control group were totally dependent in ADL.	

Zelen's reference: Patients in the first group receive standard treatment; those in the second group are asked if they will accept the experimental therapy; if they decline, they receive the best standard treatment. In the analyses of results, all those in the second group, regardless of treatment, are compared with those in the first group.

Lipton *et al.* 1994

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Upon consent, patients were randomly assigned into the experimental or control group through a process by which the patient drew a folded slip of paper from a box containing equal numbers of experimental and control-designated slips.	High
	Allocation concealment	Concealed	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Each of the two interviewers was blinded to the study group assignment of the patient.	Low
Attrition bias	Incomplete outcome data	No one lost to follow up	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Lopez Cabezas *et al.* 2006

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
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Selection bias	Random sequence generation	The patients were randomized to one of the two groups through a randomization software. Lists were generated in blocks of 4 to assure a consistent patient distribution in both groups.	Low
	Allocation concealment	The control of allocation to each group was performed by the admission department and patient recruitment was carried out by the cardiology department. Neither the physician nor the nurse responsible for the patient knew the allocation until the educational intervention, the day of discharge.	Low
Performance bias	Blinding of participants and personnel	Not blinded during the study, only at patient randomisation.	High
Detection bias	Blinding of outcome assessment	Done by the intervention pharmacist. Not blinded.	High
Attrition bias	Incomplete outcome data	No one lost to follow up	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	Both study groups were comparable with regard to the primary clinical variables, such as functional class, previous admissions or underlying heart disease, though the intervention group had globally a slightly higher ejection fraction than the control group ($p < 0.05$).	

Ma *et al.* 2010

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Randomization was conducted by a statistician who was not involved with the intervention.	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	A total of 559 (81%) had complete pharmacy records and were included in the final analysis.	Unclear
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

McLean *et al.* 2003

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Coin toss	High
	Allocation concealment	Not concealed	High
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Quite high rate of dropouts	High
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Mehos *et al.* 2000

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Randomised using a deck of cards	High
	Allocation concealment	Concealed	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Only 5 lost to follow up, and demographics were compared between the groups and showed no differences.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Mehuys *et al.* 2011

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
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Selection bias	Random sequence generation	"Randomization was performed at the pharmacy level. Each participating pharmacy was randomly assigned to either the control group or the intervention group. The sequence of allocation to control or intervention group was predetermined by the investigators based on randomization table generated using SPSS 14.0 software."	Low
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	"Nearly all patients completed the study (control group: 132/135; intervention group: 148/153)."	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Mehuys *et al.* 2008

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	The sequence of allocation to either control or intervention group was predetermined by the investigators based on a randomisation table.	Low
	Allocation concealment	Predetermined by the investigators based on a randomisation table. The envelope with the lowest number was opened by the pharmacist upon inclusion of a new patient.	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	The primary outcome, i.e. the ACT score, was analysed using an intention-to-treat approach. Tests were made to check the success of the randomisation. These tests were also used to compare baseline characteristics of patients who did and did not complete the study. They were well matched.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Mohammadi *et al.* 2006

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Each group was selected randomly via using their file numbers. They were then solicited to take part in the study. The groups of study were allocated randomly.	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	No dropouts mentioned	Unclear
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Morgado *et al.* 2011

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Participants were allocated following simple randomisation procedures (equal allocation and without restrictions) using a computer-generated list of random numbers.	Low
	Allocation concealment	The allocation sequence was concealed from the clinical pharmacist enrolling and assessing participants in sequentially numbered, opaque, sealed envelopes. The computer generated the allocation sequence and the envelopes were prepared by a researcher with no clinical involvement in the trial.	Low
Performance bias	Blinding of participants and personnel	Based on the nature of the intervention, it is not feasible to blind hypertensive patients in pharmaceutical intervention models.	High
Detection bias	Blinding of outcome assessment	Whereas patients, pharmacists and physicians were aware of the patient allocated arm, nurses assessing BP were kept blinded to the allocation.	Low
Attrition bias	Incomplete outcome data	Low rate of dropouts, and demographics were compared.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	The percentage of patients on angiotensin II receptor antagonists was the only significant difference detected between the two groups at baseline (P=0.018). Higher in the intervention group.	

Murray *et al.* 2009

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	A research assistant randomly assigned patients to either an intervention or control group using a computer randomization protocol.	Low
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Computer programs were run by programmers blinded to treatment group assignment after patients had completed their full participation in the trials. A trained nurse abstractor, also blinded to group assignment, verified whether an ADE or ME had actually occurred using both electronic health records and the paper medical records.	Low
Attrition bias	Incomplete outcome data	Low dropout rate, and demographics compared. No differences between groups.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Murray *et al.* 2007

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Using a univariate discrete distribution from the IMSL Fortran Library's subroutine RNGDA pseudorandom number generator (Absoft Corp., Rochester Hills, Michigan) Computerized.	Low
	Allocation concealment	Interviewers were blinded to patients' study status and played no role in the delivery of the intervention. Interviewers contacted a centralized data manager at the end of each interview to determine the patient's study assignment, which was otherwise concealed.	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Interviewer was blinded to patients' group assignments.	Low
Attrition bias	Incomplete outcome data	Randomization resulted in well-balanced groups (Table 1), except that more patients in the usual care group than the intervention group had a history of	Low

		coronary artery disease (76% vs. 63%). Follow- up rates was similar in the intervention (87%) and usual care (85%) groups.	
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Nazareth *et al.* 2001

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Randomised using computer-generated random numbers.	Low
	Allocation concealment	Computerized after given consent.	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Research assistant remained blinded to the allocation of the patient. The allocation code was only revealed at the end of the study.	Low
Attrition bias	Incomplete outcome data	Data was collected at each follow up. A few dropouts, but demographics compared and showed do differences.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Noureldin *et al.* 2012

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Consideration to dropouts not mentioned. About 10 % dropout rate	High

Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Peterson et al. 2004

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Patients who provided written, informed consent were allocated to either the intervention or control group, using a computer-generated list of random numbers.	Low
	Allocation concealment	Computerized	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention (patients' GP was blinded).	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	About 14% dropout rate. Not further commented.	High
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Phumipamorn et al. 2008

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	135 consented to participate in the study. They were selected randomly by drawing numbers from a container that included "1" for the study group (N= 67) and "2" for the control group (N= 68).	High
	Allocation concealment	Not concealed	High
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Low dropout rate	Low
Reporting bias	Selective reporting	None identified	Low

Other bias	Anything else, ideally pre-specified	The study group had a higher number of female patients than in the control group ($P = 0.03$). At baseline, more patients in the study group (73%) than in the control group (58.2%) were taking combined anti-diabetic drugs. The per cent pill count was marginally higher in the control group than in the study group ($P = 0.05$).
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Pierce *et al.* 1989

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	About 43% dropout rate, but included when compared to control.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Pladevall *et al.* 2010

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Block randomization was used to ensure that physicians were balanced across intervention and control groups within hospitals and primary care clinics. A computer-generated random-number list was used to randomize physicians, and investigators were not aware of the randomization scheme.	Low
	Allocation concealment	Randomization was centralized through a single coordinating centre, and the sequence was concealed until interventions were assigned.	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	The end points were adjudicated by a clinical events committee that was blinded to the patients' treatment group. Statistical analyses were performed by an independent group blinded to group assignment.	Low
Attrition bias	Incomplete outcome data	Outcomes were analysed on an intention-to-treat basis	Low

Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Polack *et al.* 2008

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	The randomization envelopes were prepared by a hospital employee not involved in the study, and investigators were blinded to the contents prior to opening the seal	Low
Performance bias	Blinding of participants and personnel	Nurses, physicians, and other non-pharmacist hospital staff were blinded with respect to group allocation, but patients and pharmacists were not.	High
Detection bias	Blinding of outcome assessment	The follow up survey was administered by a pharmacist who did not provide education to the patient and was blinded to the patient's group allocation.	Low
Attrition bias	Incomplete outcome data	Only one patient lost to follow up	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Qureshi *et al.* 2007

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Outcome assessors were blinded to the randomisation status of participants.	Low
Attrition bias	Incomplete outcome data	Response rate=92.5%.	Low

Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Ramanath *et al.* 2012

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	After obtaining the patient consent, the patients were randomized into the intervention and control group by a simple randomization technique [i.e. odd (in the control group) and even numbers (in an interventional group)] in order to minimise/prevent the bias.	Low
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	7% dropout rate	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Ramanath *et al.* 2013

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Sealed envelopes	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Low dropout rate	Low

Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Rathbun *et al.* 2005

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Blocks of 4, not described closer	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	All primary analyses were conducted using an intent-to-treat (ITT)	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	Patients assigned to the adherence clinic group had higher CD4 counts (median [SD], 296 [278] vs. 104 [103] cells/L in the standard care group; P = 0.008).	

Rickles *et al.* 2006

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Low dropout rate. Only three patients lost for follow-up	Low
Reporting bias	Selective reporting	None identified	Low

Other bias	Anything else, ideally pre-specified	At baseline, patients in the intervention group were more likely to have a history of psychotropic medication use ($P<0.05$).
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Rickles *et al.* 2005

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	The researcher prepared 10 pieces of paper with sequential numbers	High
	Allocation concealment	Concealed until patient enrolled. Then the pharmacist took out a piece of paper from the envelope	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	intention-to-treat	Low
Reporting bias	Selective reporting	Data on medication adherence not shown	Unclear
Other bias	Anything else, ideally pre-specified	At baseline, patients in the intervention group were more likely to have a history of psychotropic medication use ($P<0.05$).	

Sadik *et al.* 2005

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Assessment of the 2-min walk test and the FVC test was blinded. But not described for the other outcomes.	Unclear
Attrition bias	Incomplete outcome data	Low dropout rate	Low

Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Sathvik *et al.* 2013

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	No patients lost to follow-up	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Shah *et al.* 2012

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Low dropout rate	Low

Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	Baseline demographics were similar between both the groups except there was higher systolic BP (P=0.002) and A1C (P=0.04), and shorter diabetes duration (P=0.02) in the intervention group.	

Sookaneknun *et al.* 2004

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Intent-to-treat was used as the basis for inclusion in the study to reduce the bias that would occur if patients who dropped out of the study were not included in the total numbers.	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Stevens et al. 2002

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Computer-generated random sequence	Low
	Allocation concealment	The participating pharmacies were provided with a supply of opaque randomization envelopes, and the pharmacists were trained to open the top envelope to determine the treatment assignment for each new research participant.	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	All data collectors were masked to treatment assignments.	Low
Attrition bias	Incomplete outcome data	Participants with missing follow-up data were not included in the analyses of follow-up data. However, quite low dropout rate (10%).	Low

Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Sturgess *et al.* 2003

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Where possible, data collection via interview was performed by a member of staff other than the pharmacist, e.g. pharmacy assistant, to minimise bias. Not specified how much data was collected by the pharmacist.	Unclear
Attrition bias	Incomplete outcome data	High dropout rate, not taken in consideration in the results.	High
Reporting bias	Selective reporting	Sign and symptom control not compared between the groups. All other outcomes were compared between the groups.	Low
Other bias	Anything else, ideally pre-specified	Baseline differences between patient and control groups: intervention patients were prescribed more medications (P<0.05).	

Thompson *et al.* 1986

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Doesn't seem to be any dropouts	Low
Reporting bias	Selective reporting	None identified	Low

Other bias	Anything else, ideally pre-specified	n/a
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Turner *et al.* 1994

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Randomly assigned to either a control or test group, using the last digit of their unique Community Health Index number (Grampian's primary care index number).	High
	Allocation concealment	Not concealed	High
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	No dropouts	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Varma *et al.* 1999

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Minimization	Low
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	High dropout rate (41%), and not taken in consideration in the results.	High
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	At baseline, patients in the intervention group had a tendency to better health (MLHF questionnaire scores, 2-minute walk test). The only differences that were statistically significant were drug knowledge scores and scores for the physical function domain of the SF-	

Vivian *et al.* 2002

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Low dropout rate (3/53)	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	Patients in the intervention group had higher diastolic BP at baseline than the control group (P=0.0012).	

Volume *et al.* 2001

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	A blinded statistician carried out the randomisation of pharmacies	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention. However, the control pharmacists were not told which patients had or had not agreed to participate in the study.	High
Detection bias	Blinding of outcome assessment	Data was collected using a telephone survey administrated by the Population Research Lab at the University of Alberta.	Unclear
Attrition bias	Incomplete outcome data	About 20 % dropout rate. Demographics compared at baseline, and only difference was that dropouts were in average 2 years older than the ones	Low

		remaining in the study.	
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	At baseline, patients in the intervention group reported a higher number of prescription medications taken than the control group. However, there was no significant difference in self-reported medication adherence.	

Vuong *et al.* 2008

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Computer generated list of random numbers	Low
	Allocation concealment	Not concealed	High
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	High dropout rate. Not considered in the results.	High
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	Despite proper randomisation technique the intervention patients tended to be older, more likely to be female and more likely to have had their medication regimens altered during hospitalisation, required support services following hospitalisation or have had more language barriers than the standard care group.	

Wandless *et al.* 1981

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Doesn't seem to be any dropouts	Low

Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Wang *et al.* 2010

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Low dropout rate	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Weinberger *et al.* 2002

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Concealed	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Blinded interviewers	Low
Attrition bias	Incomplete outcome data	Using intent-to-treat analysis	Low
Reporting bias	Selective reporting	None identified	Low

Other bias	Anything else, ideally pre-specified	Study groups were comparable as baseline ($P>0.05$), except for race (both diseases) and PEFR (COPD only).
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Williford *et al.* 1995

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	About 16% dropout rate. Not taken in consideration, even in comparison of demographics.	High
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Wong *et al.* 2013

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Computer-generated	Low
	Allocation concealment	Concealed	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	BP measured by blinded researchers	Low
Attrition bias	Incomplete outcome data	Intent-to-treat analysis	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Wu *et al.* 2006

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Computer-generated	Low
	Allocation concealment	Pharmacist was blinded to the randomisation code. The group assignments were in concealed envelopes	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Intention to treat analysis	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	Baseline characteristics were similar except that the control group had a lower compliance score (table 1) and lower use of lipid lowering and antiplatelet drugs.	

Young *et al.* 2012

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Not described	Unclear
	Allocation concealment	Not described	Unclear
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Researchers were blinded to patients' allocation	Low
Attrition bias	Incomplete outcome data	A dropout rate of 15%. All available data during the study period was used	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Zerafa *et al.* 2011

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	The two groups were chosen according to the last digit of the patient's identity card.	High
	Allocation concealment	Not concealed	High
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Not described	Unclear
Attrition bias	Incomplete outcome data	Low dropout rate	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	

Zhang *et al.* 2012

Bias domain	Source of bias	Support for judgement	Review authors' judgement (low, unclear or high risk of bias)
Selection bias	Random sequence generation	Randomization was completed by SPSS 16.0-generated algorithm.	Low
	Allocation concealment	Treating assignments, kept in sealed opaque envelopes with only number labelled, were opened after patient gave their informed consents.	Low
Performance bias	Blinding of participants and personnel	Not possible due to the design of the intervention	High
Detection bias	Blinding of outcome assessment	Blinded	Low
Attrition bias	Incomplete outcome data	Intention to treat (ITT) was used to analyse the data	Low
Reporting bias	Selective reporting	None identified	Low
Other bias	Anything else, ideally pre-specified	n/a	