

## **SUPPLEMENTAL MATERIAL**

### **Table of Contents**

<b>Supplementary Methods.</b>	Search Strategy
<b>Supplementary Table 1</b>	Description of Included Randomized Controlled Trials
<b>Supplementary Table 2.</b>	Intervention Moderators
<b>Supplementary Table 3.</b>	Risk of Bias Moderators
<b>Supplementary Table 4.</b>	Risk of Bias Assessments
<b>Supplementary Table 5.</b>	Pharmacist Patient Care Services Intervention Reporting (PaCIR) Assessments
<b>Supplementary Figure 1.</b>	Forest Plot of Blood Pressure Outcomes
<b>Supplementary Figure 2.</b>	Forest Plot of Mortality Outcomes
<b>Supplementary Figure 3.</b>	Forest Plot of Hospitalization/Readmission Outcomes
<b>Supplementary Figure 4.</b>	Funnel Plot

## Supplementary Methods. Search Strategy

Searches were run using both controlled vocabulary (i.e., MeSH terms) and keywords in the title or abstract fields. The following databases were searched: PubMed, Scopus, CINAHL, Cochrane Central Register of Controlled Trials, Cochrane Database of Systematic Reviews, and Google Scholar. Databases were searched from inception through April 2, 2020. No limitations were put on the search in terms of language, date of publication, or geography.

PubMed: 3025 + 8 = 3033 (0 additional duplicates removed)

(((((("Medication adherence"[Mesh] OR "Medication adherence" [Title/Abstract]))  
OR (((("Pharmaceutical Preparations"[Mesh] OR drugs[Title/Abstract] OR medication\*[Title/Abstract] OR  
prescription\*[Title/abstract] or pharmaceutical\*[title/abstract])))  
AND ("Patient Compliance"[Mesh] OR "Treatment Refusal"[Mesh] OR adherence  
[Title/Abstract] OR non-adherence [Title/Abstract] OR nonadherence [Title/Abstract] OR  
adherent [Title/Abstract] OR non-adherent [Title/Abstract] OR nonadherent [Title/Abstract] OR  
compliance [Title/Abstract] OR non-compliance [Title/Abstract] OR noncompliance  
[Title/Abstract] OR compliant [Title/Abstract] OR non-compliant [Title/Abstract] OR  
noncompliant [Title/Abstract] OR concordance [Title/Abstract] OR "Patient Compliance"  
[Title/Abstract] OR "Treatment acceptance" [Title/Abstract] OR "Treatment  
Refusal"[Title/Abstract])))

AND (intervention\*[title/abstract] OR "Medication Reconciliation"[Mesh] OR "Medication  
Reconciliation"[Title/Abstract] OR "Medication Therapy Management"[Mesh] OR "medication therapy  
management"[Title/Abstract] OR "medication management"[Title/Abstract] OR "Voluntary Programs"[Mesh] OR  
"Health Education"[Mesh] OR care[title/abstract] OR coach\*[Title/Abstract] OR consult\*[title/abstract] OR  
counsel\*[Title/Abstract] OR educat\*[Title/Abstract] OR feedback[Title/Abstract] OR help\*[title/abstract] OR  
inform\*[Title/Abstract] OR intervention\*[title/abstract] OR program\*[Title/Abstract] OR review[Title/Abstract] OR  
support\*[title/abstract] OR teach\*[Title/Abstract]))

AND ("Pharmacists"[Mesh] OR Pharmacist\* OR "Pharmacies"[Mesh] OR pharmacy OR pharmacies OR  
"Pharmaceutical Services"[Mesh] OR "pharmaceutical care"[title/abstract] OR "pharmaceutical  
services"[Title/Abstract] OR "Community Pharmacy Services"[Mesh] OR "community pharmacy  
services"[Title/Abstract]))

AND (((("Aged"[MeSH] OR "Aged, 80 AND OVER"[MeSH] OR geriatric[Title/Abstract] OR  
elderly[Title/Abstract] OR "older adults"[Title/Abstract] OR senior\*[Title/Abstract])) NOT ("nursing  
home"[Title/Abstract] OR "nursing homes"[Title/Abstract] OR "long-term care"[Title/Abstract]))

Scopus: 361 + 2 = 364 (one duplicate removed)

( TITLE-ABS ( ( {Medication adherence} ) OR ( ( drugs OR medication\* OR prescription\* OR  
pharmaceutical\* ) AND ( adherence OR non-adherence OR nonadherence OR adherent OR non-adherent OR  
nonadherent OR compliance OR non-compliance OR noncompliance OR compliant OR non-compliant OR  
noncompliant OR concordance OR {Patient Compliance} OR {Treatment acceptance} OR {Treatment  
Refusal} ) ) )

AND (Title-Abs( intervention\* OR {medication therapy management} OR {medication management} OR care  
OR coach\* OR consult\* OR counsel\* OR educat\* OR feedback OR help\* OR inform\* OR intervention\*  
OR program\* OR review OR support\* OR teach\* ) )

AND (Title-Abs( pharmacist\* OR pharmacy OR pharmacies OR {pharmaceutical care} OR {pharmaceutical  
services} ) )

AND ( TITLE-ABS ( ( geriatric OR elderly OR {older adults} OR senior\* ) ) AND NOT ( {nursing home}  
OR {nursing homes} OR {long-term care} ) ) )

CINAHL: 799 + 11 = 810 (9 duplicates removed)

Cochrane Central Register of Controlled Trials: 312 + 2 = 314 (1 duplicate removed)

Cochrane Database of Systematic Reviews: 0 + 0 = 0

PsycINFO: 65 + 0 = 65

(( MH "Medication Compliance")

OR ( ( MH "Drugs" OR TI ( drugs OR medication\* OR prescription\* OR pharmaceutical\* ) OR AB ( drugs OR medication\* OR prescription\* OR pharmaceutical\* ) )

AND ( MH "Patient Compliance" OR TI ( adherence OR non-adherence OR nonadherence OR adherent OR non-adherent OR nonadherent OR compliance OR non-compliance OR noncompliance OR compliant OR non-compliant OR noncompliant OR concordance OR "Patient Compliance" OR "Treatment acceptance" OR "Treatment Refusal" ) OR AB ( adherence OR non-adherence OR nonadherence OR adherent OR non-adherent OR nonadherent OR compliance OR non-compliance OR noncompliance OR compliant OR non-compliant OR noncompliant OR concordance OR "Patient Compliance" OR "Treatment acceptance" OR "Treatment Refusal" ) ) ) )

AND ( MH "Pharmacists" OR TI ( Pharmacist\* OR pharmacy OR pharmacies OR "pharmaceutical care" OR "pharmaceutical services" ) OR AB ( Pharmacist\* OR pharmacy OR pharmacies OR "pharmaceutical care" OR "pharmaceutical services" ) )

AND ( TI ( intervention\* OR "medication therapy management" OR "medication management" OR care OR coach\* OR consult\* OR counsel\* OR educat\* OR feedback OR help\* OR inform\* OR intervention\* OR program\* OR review OR support\* OR teach\* ) OR AB ( intervention\* OR "medication therapy management" OR "medication management" OR care OR coach\* OR consult\* OR counsel\* OR educat\* OR feedback OR help\* OR inform\* OR intervention\* OR program\* OR review OR support\* OR teach\* ) )

AND ( ( MH "Aged" OR MH "Aged, 80 and Over" OR MH "Frail Elderly" ) OR TI ( geriatric OR elderly OR "older adults" OR senior\* ) OR AB ( geriatric OR elderly OR "older adults" OR senior\* ) )

NOT ( TI ("nursing home" OR "nursing homes" OR "long-term care") OR AB ("nursing home" OR "nursing homes" OR "long-term care") )

Google Scholar: top 100, sorted by relevance, eliminated citations and patents, plus top 25 sorted by date = 125 (5 duplicates removed)

(medication OR prescription)

AND (adherence OR compliance)

AND pharmacist

AND (intervention OR program OR consult OR manage)

AND (elderly OR geriatric)

<b>Supplementary Table 1. Description of Included Randomized Controlled Trials</b>						
<b>Author (Year) Country/Region</b>	<b>Sample size (by treatment arm)<sup>a</sup></b>	<b>Female (%)</b>	<b>Sample age, mean (years)</b>	<b>Brief description of intervention</b>	<b>Intervention length (days)<sup>b</sup></b>	<b>Adherence outcome measure(s) coded</b>
<b>Al-Rashed (2002)</b> England	I: 45 C: 44	43.4	80.6	Medication counseling, a medication and information discharge summary, and a simple medication reminder card at hospital discharge	1	<ul style="list-style-type: none"> <li>• Pill count</li> </ul>
<b>Begley (1997)</b> England	I: 74 C: 75	62.9	-	Medication counseling during home visits	365	<ul style="list-style-type: none"> <li>• Self-report by face-to-face interview</li> </ul>
<b>Bernsten (2001)</b> Europe	I: 1290 C: 1164	57.6	-	Pharmaceutical care	540	<ul style="list-style-type: none"> <li>• Self-report by face-to-face interview</li> </ul>
<b>Bonetti (2018)</b> Brazil	I: 66 C: 67	33.7	65	Medication counseling at hospital discharge	-	<ul style="list-style-type: none"> <li>• Self-report by face-to-face interview</li> </ul>
<b>Bouvy (2003)</b> Netherlands	I: 74 C: 78	34.2	69.7	Medication consultation	180	<ul style="list-style-type: none"> <li>• Electronic event monitoring device</li> </ul>
<b>Clifford (2006)</b> England	I: 261 C: 239	52.2	67	Patient-centered advice about a new medication	14	<ul style="list-style-type: none"> <li>• Self-report by telephone interview</li> </ul>
<b>Cooney (2015)</b> USA	I: 1070 C: 1129	1.8	76.7	Multi-pronged quality improvement program	-	<ul style="list-style-type: none"> <li>• Self-report by telephone interview</li> </ul>
<b>Eyler (2016)</b> USA	I: 16 C: 14	56.7	78.8	Motivational interviewing	1	<ul style="list-style-type: none"> <li>• Self-report by telephone interview</li> <li>• Filling prescription at pharmacy</li> </ul>
<b>Goodyer (1995)</b> England	I: 50 C: 50	73	84.5	Medication counseling	90	<ul style="list-style-type: none"> <li>• Pill count</li> </ul>
<b>Gwadry-Sridhar (2005)</b> England	I: 68 C: 68	28.4	66	In-hospital education	1	<ul style="list-style-type: none"> <li>• Pharmacy refills</li> </ul>
<b>Hanlon (1996)</b> USA	I: 105 C: 103	1.0	69.8	Pharmaceutical care	-	<ul style="list-style-type: none"> <li>• Self-report by face-to-face interview</li> </ul>
<b>Hunt (2008)</b> USA	I: 230 C: 233	18	68	Physician-pharmacist collaborative care	365	<ul style="list-style-type: none"> <li>• Self-report, method of data collection unclear</li> </ul>
<b>Jung (2017)</b> Korea	I: 105 C: 105	43.8	66.3	Administration timing simplification protocol	90	<ul style="list-style-type: none"> <li>• Pill count</li> <li>• Self-report, method of data collection unclear</li> </ul>

<b>Author (Year) Country/Region</b>	<b>Sample size (by treatment arm)<sup>a</sup></b>	<b>Female (%)</b>	<b>Sample age, mean (years)</b>	<b>Brief description of intervention</b>	<b>Intervention length (days)<sup>b</sup></b>	<b>Adherence outcome measure(s) coded</b>
<b>Khmour (2009)</b> Ireland	I: 86 C: 87	56.1	66.5	Pharmaceutical care	365	<ul style="list-style-type: none"> <li>• Self-report by written questionnaire</li> </ul>
<b>Lai (2011)</b> Malaysia	I: 100 C: 98	100	66.1	Pharmaceutical care	365	<ul style="list-style-type: none"> <li>• Pharmacy refills</li> <li>• Pill count</li> <li>• Medication administration diary data recorded by participants</li> <li>• Self-report face-to-face interview</li> </ul>
<b>Lam (2017)</b> USA	I: 68 C: 66	52.2	70	Medication counseling via Talking Pill Bottles	90	<ul style="list-style-type: none"> <li>• Self-report face-to-face interview</li> </ul>
<b>Lee (2006)</b> USA	I: 83 C: 76	25.8	78	Pharmaceutical care	180	<ul style="list-style-type: none"> <li>• Pill count</li> </ul>
<b>Lim (2004)</b> Singapore	I: 68 C: 68	65.1	80	Pharmaceutical care	60	<ul style="list-style-type: none"> <li>• Self-report face-to-face interview</li> </ul>
<b>Lipton (1994)</b> USA	I: 350 C: 356	-	74.5	Pharmaceutical care	90	<ul style="list-style-type: none"> <li>• Self-report by telephone interview</li> </ul>
<b>López Cabezas (2006)</b> Spain	I: 70 C: 64	55.6	75.7	Pharmaceutical care	365	<ul style="list-style-type: none"> <li>• Pill count</li> </ul>
<b>Lowe (1995)</b> England	I: 45 C: 42	65.9	78.3	Inpatient self-medication program	-	<ul style="list-style-type: none"> <li>• Pill count</li> </ul>
<b>Lowe (2000)</b> England	I: 77 C: 84	67.1	76.2	Medication review and counseling	-	<ul style="list-style-type: none"> <li>• Pill count</li> </ul>
<b>Lyons (2016)</b> England	I: 340 C: 337	41.5	69.9	Medication counseling, a written summary of the discussion, and a medication reminder chart	35	<ul style="list-style-type: none"> <li>• Pharmacy refills</li> <li>• Self-report by written questionnaire</li> </ul>
<b>Messerli (2016)</b> Switzerland	I: 218 C: 232	54	67.1	Pharmaceutical care	196	<ul style="list-style-type: none"> <li>• Self-report by face-to-face interview</li> <li>• Self-report by telephone interview</li> </ul>

<b>Author (Year) Country/Region</b>	<b>Sample size (by treatment arm)<sup>a</sup></b>	<b>Female (%)</b>	<b>Sample age, mean (years)</b>	<b>Brief description of intervention</b>	<b>Intervention length (days)<sup>b</sup></b>	<b>Adherence outcome measure(s) coded</b>
<b>Naunton (2003)</b> Australia	I: 57 C: 64	62.8	-	Pharmaceutical care	85	<ul style="list-style-type: none"> <li>• Self-report face-to-face interview</li> </ul>
<b>Nazareth (2001)</b> England	I: 165 C: 156	64	84	Medication discharge plan followed by home visit	-	<ul style="list-style-type: none"> <li>• Self-report face-to-face interview</li> </ul>
<b>Obreli-Neto (2011)</b> Brazil	I: 100 C: 100	62.4	65.3	Pharmaceutical care	1098	<ul style="list-style-type: none"> <li>• Pharmacy refills</li> <li>• Self-report face-to-face interview</li> </ul>
<b>Olesen (2014)</b> Denmark	I: 315 C: 315	51.6	-	Pharmaceutical care	275	<ul style="list-style-type: none"> <li>• Pill count</li> </ul>
<b>Schulz (2019)</b> Germany	I: 130 C: 128	38.4	74.1	Pharmaceutical care	-	<ul style="list-style-type: none"> <li>• Pharmacy refills</li> </ul>
<b>Shim (2018)</b> Malaysia	I: 80 C: 80	42.8	-	Physician-pharmacist collaborative care	180	<ul style="list-style-type: none"> <li>• Self-report face-to-face interview</li> </ul>
<b>Solomon (1998)</b> USA	I: 63 C: 70	4.5	66.8	Pharmaceutical care	180	<ul style="list-style-type: none"> <li>• Self-report face-to-face interview</li> </ul>
<b>Stewart (2014)</b> Australia	I: 207 C: 188	48.9	66.7	Multi-pronged, including medication review, motivational interviewing, refill reminders, and blood pressure self-monitoring	180	<ul style="list-style-type: none"> <li>• Self-report by written questionnaire</li> </ul>
<b>Sturgess (2003)</b> Ireland	I: 110 C: 81	62.3	73.6	Pharmaceutical care	540	<ul style="list-style-type: none"> <li>• Pharmacy refills</li> <li>• Self-report by face-to-face interview</li> <li>• Self-report, method of data collection unclear</li> </ul>
<b>Tommelein (2014)</b> Belgium	I: 371 C: 363	-	68.6	Pharmaceutical care	90	<ul style="list-style-type: none"> <li>• Pharmacy refills</li> </ul>
<b>Varma (1999)</b> Ireland	I: 42 C: 41	59	75.9	Pharmaceutical care	-	<ul style="list-style-type: none"> <li>• Pharmacy refills</li> </ul>
<b>Vivian (2002)</b> USA	I: 27 C: 29	0	65	Pharmaceutical care	180	<ul style="list-style-type: none"> <li>• Pharmacy refills</li> <li>• Self-report by written questionnaire</li> </ul>

<b>Author (Year) Country/Region</b>	<b>Sample size (by treatment arm)<sup>a</sup></b>	<b>Female (%)</b>	<b>Sample age, mean (years)</b>	<b>Brief description of intervention</b>	<b>Intervention length (days)<sup>b</sup></b>	<b>Adherence outcome measure(s) coded</b>
<b>Willeboordse (2017)</b> Netherlands	I: 275 C: 243	64.9	77.7	Pharmaceutical care	1	<ul style="list-style-type: none"> <li>• Self-report by written questionnaire</li> </ul>
<b>Willoch (2012)</b> Norway	I: 40 C: 37	62.3	75.1	Pharmaceutical care	-	<ul style="list-style-type: none"> <li>• Self-report by face-to-face interview</li> </ul>
<b>Wu (2006)</b> China	I: 219 C: 223	51.4	70.8	Medication counseling	730	<ul style="list-style-type: none"> <li>• Combination of measures including self-report</li> </ul>

**Abbreviations:** C: control; I: intervention; USA: United States of America

<sup>a</sup>Sample size reported for baseline

<sup>b</sup>Number of days over which the intervention sessions were given which will potentially have an effect on medication adherence

**Supplementary Table 2. Intervention Moderators**

Moderator	k	d	95% CI	I <sup>2</sup> , %	Q	p
Medication education						
Yes	26	0.50	0.33-0.67	84.41	5.82	.016
No	12	0.19	0.01-0.38	65.00		
Disease education						
Yes	11	0.15	0.00-0.29	52.04	9.20	.002
No	27	0.50	0.32-0.68	83.12		
Medication counseling						
Yes	18	0.46	0.26-0.67	81.04	0.55	.460
No	20	0.36	0.18-0.54	81.69		
Medication calendars						
Yes	6	0.36	0.05-0.67	86.06	0.09	.759
No	32	0.42	0.27-0.57	79.82		
Patient self-monitoring of medication-taking						
Yes	5	0.31	0.18-0.43	0.00	1.04	.308
No	33	0.41	0.26-0.56	83.65		
Pharmacist review of medication regimen						
Yes	22	0.38	0.20-0.57	84.74	0.14	.711
No	16	0.44	0.24-0.63	73.65		
Packaging interventions (e.g., pillboxes, blister packs)						
Yes	7	0.40	0.09-0.72	81.91	0.00	.996
No	31	0.41	0.26-0.55	81.73		
Dose modification by provider						
Yes	10	0.39	0.13-0.66	86.70	0.01	.910
No	28	0.41	0.26-0.57	77.77		
Medication change to improve adherence						
Yes	8	0.26	-0.07-0.59	77.65	0.96	.326
No	30	0.44	0.29-0.59	82.67		
Medication reduction to improve adherence						
Yes	10	0.45	0.16-0.75	86.23	0.13	.724
No	28	0.39	0.24-0.54	79.00		
Intervention delivery setting						
Clinic	8	0.20	-0.13-0.52	81.68	10.90	.012
Home	7	0.48	0.24-0.72	76.35		
Pharmacy	7	0.13	-0.03-0.29	67.71		
Multiple	12	0.64	0.31-0.98	82.64		
Participants in hospital at start of intervention						
Yes	11	0.66	0.35-0.96	71.50	3.80	.051
No	27	0.32	0.18-0.46	81.29		



<b>Moderator</b>	<b>k</b>	<b>d</b>	<b>95% CI</b>	<b>I<sup>2</sup>, %</b>	<b>Q</b>	<b>p</b>
Intervention delivered in participants regular community pharmacy						
Part/All of intervention	9	0.20	0.02-0.38	77.16	5.19	.023
None of intervention	28	0.49	0.32-0.67	80.45		

k = number of comparisons

d = standardized mean difference effect size

I<sup>2</sup> = index of heterogeneity beyond within-study sampling error

Q = heterogeneity statistic (weighted squared deviations from summary effect)

**Supplementary Table 3. Risk of Bias Moderators**

Moderator	k	d	95% CI	I <sup>2</sup> , %	Q	p
Comparison group type						
True control	14	0.33	0.12-0.55	77.65	0.68	.409
Attention-control	24	0.45	0.28-0.62	83.52		
Randomization type						
Individual	19	0.51	0.29-0.72	79.98	2.30	.130
Site/cluster	19	0.30	0.14-0.46	78.71		
Allocation concealed from staff responsible for randomization						
Not concealed	1	0.22	-0.25-0.70	0.00	1.27	.529
Not reported	23	0.47	0.25-0.69	86.62		
Allocation concealed	14	0.35	0.22-0.48	56.92		
Data collectors blinded to treatment assignment						
Not blinded	9	0.43	0.13-0.73	84.73	0.05	.977
Blinded	11	0.39	0.11-0.66	85.74		
Not clearly reported	18	0.40	0.22-0.59	77.04		
Intention-to-treat analysis used						
No/unclear	25	0.53	0.31-0.74	84.95	6.35	.012
Yes	13	0.20	0.07-0.34	65.13		

k = number of comparisons

d = standardized mean difference effect size

I<sup>2</sup> = index of heterogeneity beyond within-study sampling error

Q = heterogeneity statistic (weighted squared deviations from summary effect)

**Supplementary Table 4. Risk of Bias Assessments**

	Random sequence generation	Allocation concealment	Blinding of participants and personnel	Blinding of outcome assessment	Incomplete outcome data	Selective outcome reporting	Other sources of bias
<b>Al-Rashed 2002</b>							
<b>Begley 1997</b>							
<b>Bernsten 2001</b>							
<b>Bonetti 2018</b>							
<b>Bouvy 2003</b>							
<b>Clifford 2006</b>							
<b>Cooney 2015</b>							
<b>Eyler 2016</b>							
<b>Goodyer 1995</b>							
<b>Gwadry-Sridhar 2005</b>							
<b>Hanlon 1996</b>							
<b>Hunt 2008</b>							
<b>Jung 2017</b>							
<b>Khdour 2009</b>							
<b>Lai 2011</b>							

	Random sequence generation	Allocation concealment	Blinding of participants and personnel	Blinding of outcome assessment	Incomplete outcome data	Selective outcome reporting	Other sources of bias
Lam 2017							
Lee 2006							
Lim 2004							
Lipton 1994							
López Cabezas 2006							
Lowe 1995							
Lowe 2000							
Lyons 2016							
Messerli 2016							
Naunton 2003							
Nazareth 2001							
Obreli-Neto 2011							
Olesen 2014							
Schulz 2019							
Shim 2018							
Solomon 1998							

	Random sequence generation	Allocation concealment	Blinding of participants and personnel	Blinding of outcome assessment	Incomplete outcome data	Selective outcome reporting	Other sources of bias
<b>Stewart 2014</b>							
<b>Sturgess 2003</b>							
<b>Tommelein 2014</b>							
<b>Varma 1999</b>							
<b>Vivian 2002</b>							
<b>Willeboordse 2017</b>							
<b>Willoch 2012</b>							
<b>Wu 2006</b>							

**Key**

- Low risk of bias
- High risk of bias
- Unclear risk of bias



**Supplementary Table 5. Pharmacist Patient Care Services Intervention Reporting (PaCIR) Assessments**

	Replicability	Patient population	Patient / other data sources	Environment	Delivery	Frequency and duration	Pharmacist role / responsibility	Attribution	Unique attributes
<b>Al-Rashed 2002</b>	✓	✗	✗	✓	✓	✓	✓	✗	N/A
<b>Begley 1997</b>	✓	✗	✓	✓	✓	✗	✓	✗	N/A
<b>Bernsten 2001</b>	✓	✗	✓	✓	✓	✗	✓	✗	N/A
<b>Bonetti 2018</b>	✓	✗	✓	✓	✓	✗	✓	✗	N/A
<b>Bouvy 2003</b>	✗	✓	✓	✓	✓	✗	✗	✗	N/A
<b>Clifford 2006</b>	✗	✓	✓	✓	✓	✓	✓	✓	N/A
<b>Cooney 2015</b>	✓	✓	✓	✗	✓	✓	✓	✗	N/A
<b>Eyler 2016</b>	✓	✓	✓	✓	✓	✗	✓	✗	N/A
<b>Goodyer 1995</b>	✗	✓	✓	✓	✓	✗	✗	✗	N/A
<b>Gwadry-Sridhar 2005</b>	✓	✓	✓	✓	✓	✓	✗	✗	N/A
<b>Hanlon 1996</b>	✓	✗	✓	✓	✓	✗	✓	✗	N/A
<b>Hunt 2008</b>	✓	✓	✓	✓	✓	✗	✓	✓	N/A
<b>Jung 2017</b>	✓	✓	✓	✓	✓	✗	✓	✗	N/A
<b>Khdour 2009</b>	✓	✗	✓	✓	✓	✓	✓	✗	N/A
<b>Lai 2011</b>	✓	✗	✓	✓	✗	✗	✓	✓	N/A

	Replicability	Patient population	Patient / other data sources	Environment	Delivery	Frequency and duration	Pharmacist role / responsibility	Attribution	Unique attributes
Lam 2017	✓	✗	✓	✓	✓	✗	✓	✓	✓
Lee 2006	✓	✓	✓	✓	✓	✓	✓	✓	✓
Lim 2004	✓	✗	✓	✓	✓	✗	✓	✗	N/A
Lipton 1994	✓	✗	✓	✓	✓	✓	✓	✗	N/A
López Cabezas 2006	✓	✓	✗	✓	✓	✓	✓	✓	N/A
Lowe 1995	✓	✗	✓	✓	✓	✗	✓	✓	N/A
Lowe 2000	✓	✗	✓	✓	✓	✗	✓	✓	N/A
Lyons 2016	✓	✓	✓	✓	✓	✓	✓	✓	N/A
Messerli 2016	✗	✗	✓	✓	✓	✗	✓	✓	N/A
Naunton 2003	✓	✓	✓	✓	✓	✓	✓	✗	N/A
Nazareth 2001	✓	✓	✓	✗	✓	✓	✓	✗	N/A
Obreli-Neto 2011	✓	✓	✓	✓	✓	✗	✓	✓	N/A
Olesen 2014	✓	✗	✓	✓	✓	✗	✓	✗	N/A
Schulz 2019	✓	✓	✓	✓	✓	✗	✓	✗	N/A
Shim 2018	✓	✗	✓	✓	✓	✗	✓	✗	N/A
Solomon 1998	✓	✓	✓	✓	✓	✓	✓	✓	N/A

	Replicability	Patient population	Patient / other data sources	Environment	Delivery	Frequency and duration	Pharmacist role / responsibility	Attribution	Unique attributes
<b>Stewart 2014</b>	✓	✓	✓	✓	✓	✓	✓	✓	N/A
<b>Sturgess 2003</b>	—	—	—	✓	✓	—	—	—	N/A
<b>Tommelein 2014</b>	✓	—	✓	✓	✓	✓	✓	—	N/A
<b>Varma 1999</b>	✓	—	✓	✓	✓	—	✓	—	N/A
<b>Vivian 2002</b>	✓	—	✓	✓	✓	—	✓	✓	N/A
<b>Willeboordse 2017</b>	✓	✓	✓	✓	✓	—	—	—	N/A
<b>Willoch 2012</b>	✓	—	✓	✓	✓	—	✓	—	N/A
<b>Wu 2006</b>	✓	—	✓	✓	✓	✓	✓	✓	N/A

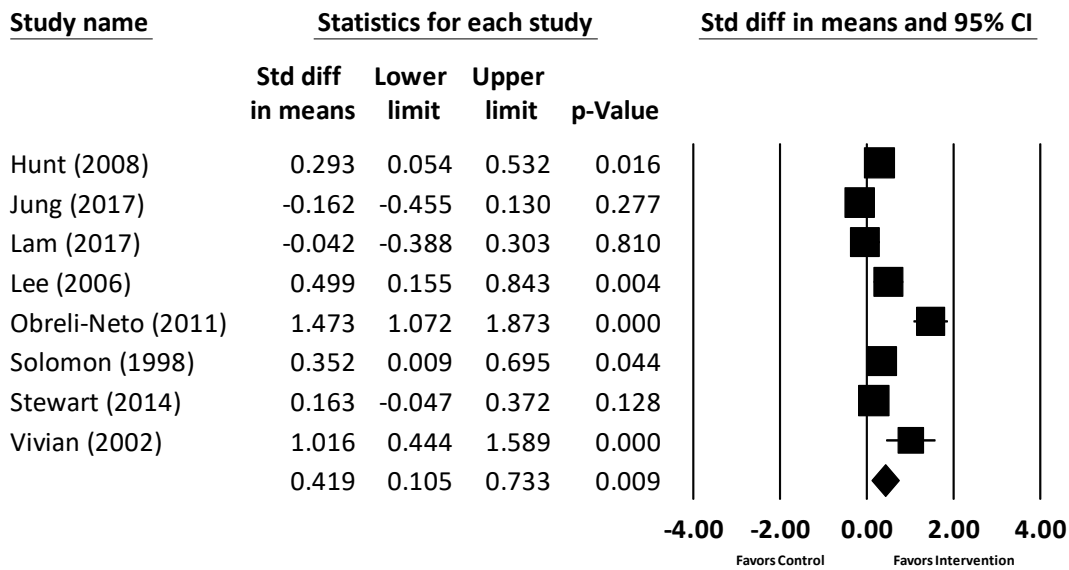
**Key**

 = Applicable, present  
 = Applicable, absent  
 N/A = Not applicable

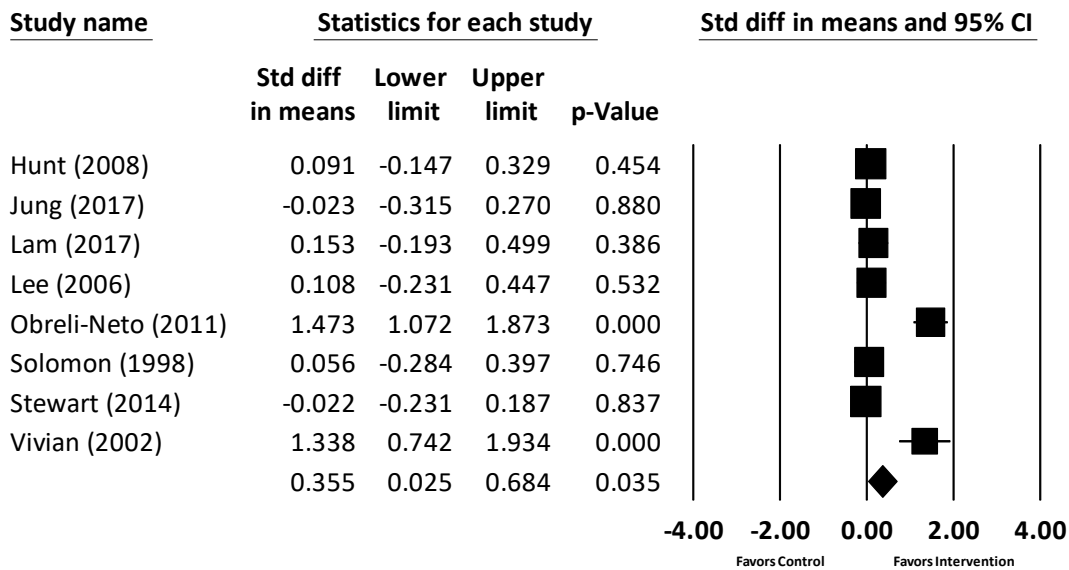


## Supplementary Figure 1. Forest Plot of Blood Pressure Outcomes

### A. Systolic Blood Pressure

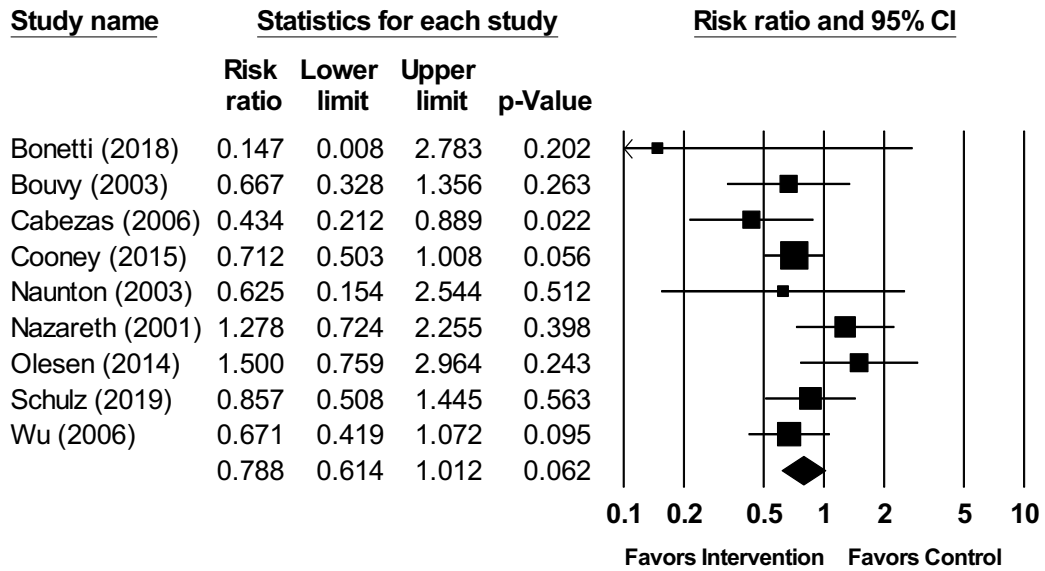


### B. Diastolic Blood Pressure



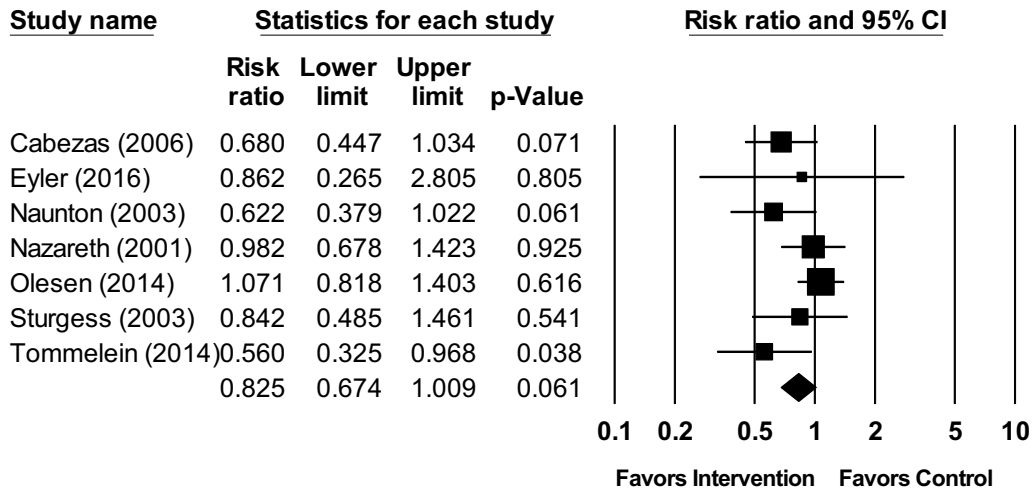
**Abbreviations:** CI: confidence interval; Std diff: standardized difference

## Supplementary Figure 2. Forest Plot of Mortality Outcomes



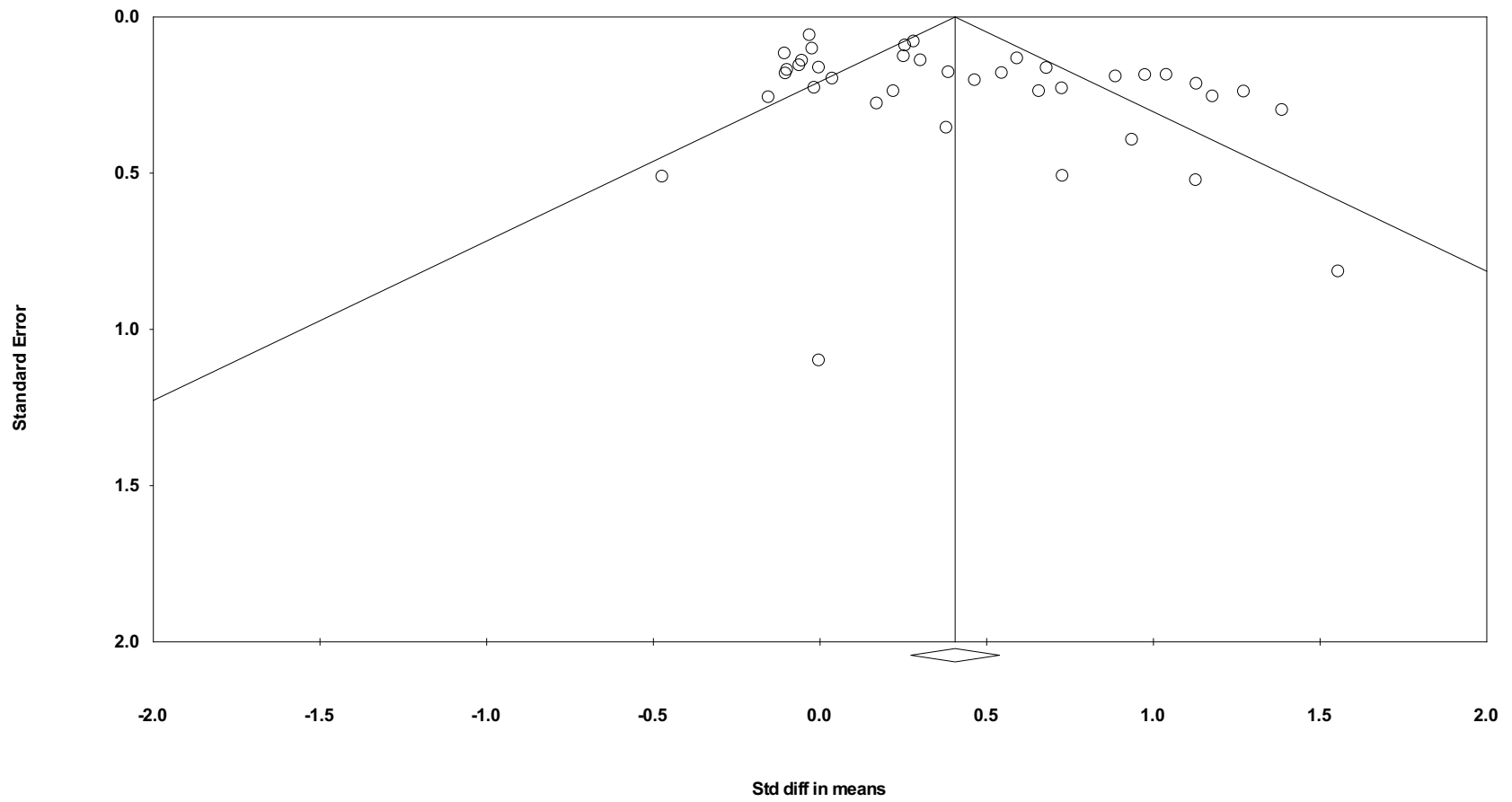
**Abbreviations:** CI: confidence interval

### Supplementary Figure 3. Forest Plot of Hospitalization/Readmission Outcomes



Abbreviations: CI: confidence interval

**Supplementary Figure 4. Funnel Plot**



**Abbreviations:** Std diff: standardized difference