Appendix 1 (as provided by the authors): Improvement in process adherence contributed by each included study

Study	Included outcomes	Representative outcome	Median improvement* (interquartile range)	Maximum improvement ('best outcome')
Bates, 1999	1	Cancelled orders for redundant laboratory tests	24% (--, --)	24%
Christakis, 2001	2	Prescriptions for otitis media adherent to guideline	23% (12.5%, 34.0%)	34%
Dexter, 2001	4	Adherence to recommended preventive measures	4.6% (3.3%, 6.3%)	7.6%
Eccles, 2002	11	Adherence to guidelines for outpatient management of stable angina	0.0% (-3.0%, 1.0%)	2.0%
Eccles, 2002	6	Adherence to guidelines for outpatient management of asthma	-1.0% (-2.0%, 0.0%)	2.0%
Filippi, 2003	1	Prescription rates for antiplatelet drugs	6.2% (--, --)	6.2%
Flottorp, 2002	3	Guideline adherent rates of prescriptions and test ordering for women with suspected urinary tract infection	0.9% (0.4%, 5.1%)	5.1%
Flottorp, 2002	3	Guideline adherent rates of prescriptions and test ordering for outpatients with sore throat	0.4% (-1.2%, 3.0%)	3.0%
Frank, 2004	11	Compliance with recommended test ordering (e.g., lipid levels and screening for diabetes), vaccinations, and documentation (e.g., recording allergies, weight)	0.6% (-0.1%, 1.3%)	4.0%
Hicks, 2008	1	Guideline adherent prescriptions for patients with hypertension	2.0% (--, --)	2.0%
Judge, 2006	1	Medication orders compliant with alerts (e.g., to cancel or modify a medication order due to patient age or potential drug interactions)	3.0% (--, --)	3.0%
Kenealy, 2004	1	Proportion of eligible patients screened for diabetes	-0.2% (--, --)	-0.2%
Kenealy, 2005	1	Proportion of eligible patients screened for diabetes	16.3% (--, --)	16.3%
Kralj, 2003	1	Erythropoietin prescription rates for eligible oncology patients	30.1% (--, --)	30.1%

Appendix 1 continued

Study	Included outcomes	Representative outcome	Median improvement* (interquartile range)	Maximum improvement ('best outcome')
Krall, 2004	1	Aspirin prescription rates for eligible patients	28.5% (--, --)	28.5%
Kucher, 2005	2	Pharmacologic prophylaxis for venous thromboembolism	9.6% (8.5%, 10.6%)	10.6%
McCowan, 2001	2	Adherence to recommendations for supporting self-management for patients with asthma	1.0% (-2.0%, 4.0%)	4.0%
Meigs, 2003	5	Rates of recommend test ordering for outpatients with diabetes	3.8% (2.6%, 3.8%)	10.5%
Overhage, 1996	22	Compliance with suggested orders for various preventive care measures in eligible inpatients (e.g., subcutaneous heparin, aspirin for patients with cardiovascular risk factors, pneumococcal vaccination)	0.65% (-0.3%, 5.8%)	33.3%
Overhage, 1997	3	Compliance with recommended "corollary" tests to accompany various targeted orders	21.4% (18.8%, 24.4%)	24.4%
Peterson, 2007	1	Prescriptions rates for inappropriate medications in the elderly (using Beers' criteria)	-1.0% (--, --)	-1.0%
Rothschild, 2007	1	Guideline-adherent orders for transfusion of blood products	7.9% (--, --)	7.9%
Roumie, 2006	3	Guideline-adherent treatment for patients with hypertension	-0.3% (-3.9%, 0.3%)	0.3%
Safran, 1995	2	Adherence to recommended processes of care for outpatient with HIV infection	21.5% (21%, 22%)	22%
Sequist, 2005	2	Adherence to guidelines for recommended aspects of care for patients with diabetes and coronary artery disease	5.0% (5.0%, 5.0%)	5.0%
Tamblyn, 2003	2	Outpatient medication orders compliant with alerts related to drug-drug interactions, and drug-disease or drug-age contraindications	2.4% (0.9%, 3.9%)	3.9%

Appendix 1 continued

Study	Included outcomes	Representative outcome	Median improvement* (interquartile range)	Maximum improvement ('best outcome')
Tape, 1993	8	Adherence to target preventive measures (e.g., pneumococcal vaccination, fecal occult blood testing)	2.8% (1.6%, 4.8%)	7.8%
Tierney, 2003	8	Adherence to cardiac guidelines in primary care	-0.5% (-4.0%, 6.0%)	9.0%
Tierney, 2005	9	Adherence to guidelines for outpatients with asthma and COPD**	0.0% (-2.0%, 0.0%)	28.0%
van Wyk, 2008	2	Guideline-adherent screening and treatment of dyslipdemia	34.6% (29.8%, 39.5%)	39.5%
van Wyk, 2008	2	Guideline-adherent screening and treatment of dyslipdemia	6.7% (3.8%, 9.6%)	9.6%
Zanetti, 2003	1	Second dose of prophylactic antibiotic during prolonged surgeries	28.0% (--, --)	28.0%

* The median improvement was calculated as the difference between rates in intervention and control groups using patients as the unit of analysis. For instance, in a study of adherence to guidelines for preventive care, the outcome would be calculated as the percentage of patients in the intervention group who received the recommended preventive processes minus the percentage in the control group who received these processes of care. We standardized all outcomes so that positive results always corresponded to improvements in care. For instance, if a study reported the percentage of patients who received inappropriate medications, we would record the complementary percentage of patients who received appropriate care.

** COPD – Chronic obstructive pulmonary disease

