

Additional file 8. Sensitivity analyses for primary outcome (compliance with desired clinical practice).

			All studies included ¹		Low risk of bias only ¹		
Categories	Statistical Method	Outcomes	Number of studies (Number of participants)	Effect estimate	Number of studies (Number of participants)	Effect estimate	Interpretations
Any implementation intervention vs. No intervention	Std. Mean Difference (IV, Random, 95% CI)	Clinical practice (continuous outcomes)	70 (8 513)	0.94* [0.72, 1.15] I ² = 95%	13 (1 925)	0.56* [0.29, 0.83] I ² = 86%	Effect size reduced; heterogeneity reduced.
	Odds Ratio (IV, Random, 95% CI)	Clinical practice (dichotomous outcomes)	57 (291 156)	2.11* [1.70, 2.62] I ² = 95%	29 (177 165)	2.00* [1.49, 2.68] I ² = 96%	Effect size reduced; heterogeneity unchanged.
Multifaceted implementation strategy vs. Single-component strategy	Std. Mean Difference (IV, Random, 95% CI)	Clinical practice (continuous outcomes)	12 (1 614)	0.23 [-0.01, 0.46] I ² = 77%	Insufficient data	Insufficient data	N/A
	Odds Ratio (IV, Random, 95% CI)	Clinical practice (dichotomous outcomes)	14 (3 801)	1.35 [0.76, 2.40] I ² = 91%	9 (3 195)	1.77 [0.89, 3.51] I ² = 92%	Effect size increased; heterogeneity unchanged.
Strategies including Individual Clinician Education (ICE) as compared to no intervention or strategies that did not involve ICE	Std. Mean Difference (IV, Random, 95% CI)	Clinical practice (continuous outcomes)	62 (6 689)	0.82* [0.60, 1.03] I ² = 94%	11 (1 615)	0.45* [0.22, 0.68] I ² = 75%	Effect size reduced; heterogeneity reduced.
	Odds Ratio (IV, Random, 95% CI)	Clinical practice (dichotomous outcomes)	53 (204 925)	2.04* [1.62, 2.56] I ² = 96%	27 (185 088)	1.82* [1.38, 2.342] I ² = 96%	Effect size reduced; heterogeneity unchanged.
Strategies including Group Clinician Education (GCE) as compared to no intervention or strategies that did not involve GCE	Std. Mean Difference (IV, Random, 95% CI)	Clinical practice (continuous outcomes)	68 (8 125)	0.96* [0.73, 1.19] I ² = 95%	12 (1 180)	0.69* [0.42, 0.95] I ² = 76%	Effect size reduced; heterogeneity reduced.
	Odds Ratio (M-H, Random, 95% CI)	Clinical practice (dichotomous outcomes)	55 (219 445)	1.81* [1.50, 2.19] I ² = 94%	25 (105 166)	1.94* [1.47, 2.54] I ² = 90%	Effect size increased; heterogeneity reduced.
Strategies including Reminders as compared to no intervention or strategies that did not involve reminders	Std. Mean Difference (IV, Random, 95% CI)	Clinical practice (continuous outcomes)	11 (802)	0.61 [-0.11, 1.33] I ² = 95%	2 (49)	0.45 [-0.19, 1.09] I ² = 20%	Effect size increased; heterogeneity reduced.

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	Odds Ratio (IV, Random, 95% CI)	Clinical practice (dichotomous outcomes)	23 (113 863)	2.44* [1.89, 3.17] I ² = 90%	15 (108 917)	2.20* [1.64, 2.96] I ² = 91%	Effect size reduced; heterogeneity unchanged.
Strategies including Patient-Mediated Intervention (PMI) as compared to no intervention or strategies that did not involve PMI	Odds Ratio (IV, Random, 95% CI)	Clinical practice (dichotomous outcomes)	8 (12 289)	1.78* [1.13, 2.79] I ² = 95%	4 (6 610)	1.73* [1.27, 2.36] I ² = 85%	Effect size unchanged; heterogeneity reduced.
Strategies including Audit and Feedback (A&F) as compared to no intervention or strategies that did not involve A&F	Std. Mean Difference (IV, Random, 95% CI)	Clinical practice (continuous outcomes)	7 (828)	-0.18 [-0.60, 0.24] I ² = 86%	2 (190)	0.31* [0.02, 0.59] I ² = 0%	Effect size changed from negative to positive; heterogeneity reduced.
	Odds Ratio (IV, Random, 95% CI)	Clinical practice (dichotomous outcomes)	17 (183 795)	1.42 [0.94, 2.13] I ² = 98%	8 (75 661)	1.06 [0.49, 2.28] I ² = 98%	Effect size reduced.
Strategies including Tailored Intervention (TI) as compared to no intervention or strategies that did not involve TI	Std. Mean Difference (IV, Random, 95% CI)	Clinical practice (continuous outcomes)	9 (1 262)	1.41* [0.65, 2.17] I ² = 97%	Insufficient data	Insufficient data	
	Odds Ratio (IV, Random, 95% CI)	Clinical practice (dichotomous outcomes)	14 (98 342)	1.90* [1.23, 2.93] I ² = 99%	10 (90 754)	1.86* [1.13, 3.05] I ² = 99%	Effect size reduced; heterogeneity unchanged.
Strategies including Opinion Leaders (OLs) as compared to no intervention or strategies that did not involve OLs	Std. Mean Difference (IV, Random, 95% CI)	Clinical practice (continuous outcomes)	4 (588)	0.41 [-0.10, 0.93] I ² = 85%	Insufficient data	Insufficient data	
	Odds Ratio (IV, Random, 95% CI)	Clinical practice (dichotomous outcomes)	13 (91 936)	1.96* [1.22, 3.14] I ² = 98%	10 (87 332)	1.84* [1.09, 3.12] I ² = 99%	Effect size reduced; heterogeneity unchanged.

1. A * denotes a statistically significant result (i.e., two-sided p value of less than 0.05).