

Supplementary information

Table S1. Searching strategy of PubMed database

PubMed						
Type	Searching Strategy	PubMed	EMBASE	Cochrane Library	Web of Science	Scopus
Disease	"Parkinson Disease"[Mesh] OR "Parkinson Disease"[tiab] OR "Idiopathic Parkinson's Disease"[tiab] OR "Lewy Body Parkinson Disease"[tiab] OR "Lewy Body Parkinson's Disease"[tiab] OR "Parkinson's Disease"[tiab] OR "Idiopathic Parkinson Disease"[tiab] OR "Paralysis Agitans"[tiab]	100386	155807	9367	111208	145959
Treatments	"Monoamine Oxidase Inhibitors"[Mesh] OR "MAOI"[tiab] OR "MAOIs"[tiab] OR "MAOI-A"[tiab] OR "MAOI- B"[tiab] OR "Selegiline"[Mesh] OR "selegiline"[tiab] OR "rasagiline" [Supplementary Concept] OR "rasagiline"[tiab] OR "safinamide"[tiab]	12729	49907	1405	8909	31461
Design	((double* [tw] OR trebl* [tw] OR tripl* [tw]) AND (mask* [tw] OR blind* [tw])) OR randomized controlled trial[pt] OR controlled clinical trial[pt] OR randomized controlled trial[mh] OR randomized[tiab] OR placebo[tiab] OR clinical trials as topic[mh] OR controlled clinical trials as topic[mh] OR random allocation[mh] OR randomization[tiab] OR randomly allocated[tiab]	115 MA&SR 4 Reviews 87 Final 25	94 MA&SR Reviews Final	Final 69	Final 84	1347 Final 280
Condition	Depression "depressive disorder"[MeSH Terms] OR	494067	776354	81164	471865	712571

"depression"[MeSH Terms] OR depress*[Title/Abstract] OR depressed mood[Title/Abstract])					
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(Parkinson Disease OR Parkinson's Disease OR Idiopathic Parkinson Disease OR Idiopathic Parkinson's Disease OR Lewy Body Parkinson Disease OR Lewy Body Parkinson's Disease OR Paralysis Agitans)

(Monoamine Oxidase Inhibitors OR MAOI OR MAOIs OR MAOI-A OR MAOI-B OR Selegiline OR rasagiline OR safinamide)

(depressive disorder OR depression OR depressed mood)

Table S2. Bias Assessment

Study or subgroup	Allocation	Performance	Attrition	Measurement	Reporting
Selegiline_The Parkinson study group_1989	Low risk	Low risk	Some concerns	Low risk	High risk
Selegiline_Allain_1991	Low risk	Low risk	Low risk	Low risk	High risk
safinamide_schapira_2013	Low risk	Low risk	Low risk	Low risk	High risk
Safinamide_Borghain_2014	Low risk	Some concerns	Low risk	Some concerns	High risk
Rasagiline_Barone_2015	Low risk	Low risk	Low risk	Low risk	Low risk
safinamide_schapira_2016	Low risk	Low risk	Low risk	Low risk	High risk

Table S3. Hoehn and Yahr Scale and Modified Hoehn and Yahr Scale

Stage	Hoehn and Yahr Scale	Modified Hoehn and Yahr Scale
1	Unilateral involvement only usually with minimal or no functional disability	Unilateral involvement only
1.5	-	Unilateral and axial involvement
2	Bilateral or midline involvement without impairment of balance	Bilateral involvement without impairment of balance
2.5	-	Mild bilateral disease with recovery on pull test
3	Bilateral disease: mild to moderate disability with impaired postural reflexes; physically independent	Mild to moderate bilateral disease; some postural instability; physically independent
4	Severely disabling disease; still able to walk or stand unassisted	Severe disability; still able to walk or stand unassisted
5	Confinement to bed or wheelchair unless aided	Wheelchair bound or bedridden unless aided