Table 1. Characteristics of the included studies

Study	Participants	Comparison	Outcome measures	Comments	Risk of bias (per outcome measure)*
Mühlbauer, 2021	RCTs = 24, including six trials that tested a typical antipsychotic. Total amount of participants = 6374 Mean ages ranged from 72.1 years to 85 years Most patients were female (62.9% to 86%). Mild-to-moderate dementia (n=1), mild-to-severe dementia (n=3), moderate dementia (n=10), moderate-to-severe dementia (n=2) and severe dementia (n=6).	**Intervention** *Two types of typical antipsychotic (six trials)* Haloperidol (n=5): Range daily dose: 0.5 mg - 12 mg Range duration: 3 - 16 weeks Thiothixene (n=1) Daily dose: 0.25 mg - 18 mg Duration: 11 weeks The trials tested and pooled for the following atypical antipsychotics: risperidone (7x), Quetiapine (5x), aripiprazole (4x), Olanzapine (3x), brexpiprazole (2x), pimavanserin (1x), tiapride (1x). **Control** Placebo	Typical antipsychotics: Psychosis: 2 studies; Somnolence: 3 studies; Extrapyramidal symptoms: 3 studies; Agitation: 4 studies ; Carer burden: 1 study; Health-related quality of life: no studies Cognitive function: 2 studies. Atypical antipsychotics: Psychosis: 12 studies; Extrapyramidal symptoms: 15 studies; Agitation: 7 studies; Carer burden: no studies Health-related quality of life: 1 study; Cognitive function: 11 studies.	Detailed information on the study characteristics and RoB can be found in Mühlbauer (2021).	Agitation: Moderate risk of bias Psychosis: Moderate risk of bias Carer burden: Moderate risk of bias Cognitive function: Moderate risk of bias Somnolence: Low risk of bias Extrapyramidal symptoms: Moderate risk of bias

Lü, 2024	RCTs = 20 Total amount of participants = 6374	**<u>Intervention:</u>** <u>*Five types of atypical antipsychotic:*</u> Quetiapine (range dose 25-400 mg/day), olanzapine (range dose 2,5-15 mg/day), risperidone (range dose 0,5-4 mg/day), brexpiprazole (range dose 0,5-3 mg/day), aripiprazole (range dose 2-15 mg/day) **<u>Control:</u>** Placebo Intervention lengths ranging from 6 weeks to 36 weeks.	Efficacy was defined as the scores improved on the standardized scales. Acceptability was defined as the all-cause dropout rate. Tolerability was defined as the discontinuation rate due to adverse effects (AEs), which included mortality, cerebrovascular adverse events (CVAEs), falls, sedation, extrapyramidal symptoms and urinary symptoms.	Detailed information on the study characteristics and RoB of the included studies can be found in Lü (2024).	RoB is based on supplementary material 3 of Lü (2024): Risk of bias summary for each included study (see appendix)
Rainer, 2007	*Sample size:* 72 patients with AD, VD, MD *No. Female:* 42 *Mean age (SD):* 77.8 (5.3) *Country:* Austria	I: Quetiapine (50–400 mg/day) C: risperidone (0.5–4 mg/day) *Follow-up:* 8wk	Psychosis (NPI) Somnolence Extrapyramidal symptoms Agitation (CMAI) Cognitive function (MMS) Burden to the carer (NPI)	-	RoB all outcomes: Moderate risk of bias
Schneider, 2006	*Sample size:* 421 patients with AD *No. Female: 235* *Mean age (SD):* 77.9 (7.5) *Country:* United States	Olanzapine (2.5 mg/day or 5 mg/day) versus Quetiapine (25 mg/day or 50 mg/day) versus risperidone (0.5 mg/day or 1 mg/day) versus placebo	Psychosis (BPRS and NPI)	-	RoB Psychosis (BPRS): Low risk of bias RoB Psychosis (NPI): Moderate risk of bias**

		Follow-up: 36wk Outcome measured: 12 wk			
Tariot, 2006	*Sample size:* 190 patients with AD, VD *No. Female: 145* *Mean age (SD):* 83.2 (6.71) *Country:* United States	I: Quetiapine (25 – 600 mg/day)) C: Haloperidol (0.5 - 12 mg/day) *Follow-up:* 10wk	Psychosis (BPRS and CGI-S) Agitation (BPRS-agitation and NPI-NH agitation) Cognition (MMSE) Somnolence	-	RoB: Moderate risk of bias***

For further details, see risk of bias table in the Appendix.
****** **Lü (2024) reported low risk of bias for the study Schneider (2006). However, due to baseline differences in the NPI scores, the RoB for the outcome psychosis was concerned with moderate bias.**
******* **Lü (2024) reported low risk of bias for the study Tariot (2006). However, due to missing information on the blinding and randomization, the RoB for this study was concerned with moderate bias.**