
A systematic review of pharmacogenetic testing to guide antipsychotic treatment

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Supplementary Table 1. Characteristics of the excluded studies.

Study	Reason for exclusion	Identification method
Brixner et al., (1)	Antipsychotics did not constitute the great majority of prescribed medications	Google Scholar
Ariefdjohan et al., (2)	No intervention was provided	Citation search
Chou et al., (3)	No intervention was provided	Citation search
Luke et al., (4)	No intervention was provided	Citation search
Battersby (5)	Not yet recruiting/recruitment incomplete	Databases
Kennedy and Dechairo (6)	Unable to retrieve	Databases
Kahn (7)	No pharmacogenetic test conducted	Databases
Zhang (8)	Unable to retrieve	Databases
Su et al., (9)	Not yet recruiting/recruitment incomplete	Databases
Mueller et al., (10)	Limited medication information	Databases
Loew (11)	Limited medication information	Databases
Tsermpini et al., (12)	Not yet recruiting/recruitment incomplete	Databases
Daut et al., (13)	Limited medication information	Databases
Cheema et al., (14)	Limited medication information	Databases
McCarthy et al., (15)	Antipsychotics did not constitute the great majority of prescribed medications	Databases
Winner et al., (16)	No intervention was provided	Database
Actrn (17)	Not yet recruiting/recruitment incomplete	Database
Laika et al., (18)	No intervention was provided	Database
Ruaño et al., (19)	Antipsychotics did not constitute the great	Database

	majority of prescribed medications	
Winner et al., (20)	Antipsychotics did not constitute the great majority of prescribed medications	Database
Fagerness et al., (21)	Antipsychotics did not constitute the great majority of prescribed medications	Citation search
Olson et al., (22)	Antipsychotics did not constitute the great majority of prescribed medications	Citation search
Swen et al., (23)	Antipsychotics did not constitute the great majority of prescribed medications	Database
Ramsey and Griffin (24)	Antipsychotics did not constitute the great majority of prescribed medications	Citation search
Espadaler et al., (25)	Antipsychotics did not constitute the great majority of prescribed medications	Citation search
Breaux et al., (26)	Antipsychotics did not constitute the great majority of prescribed medications	Database
Tanner et al., (27)	Antipsychotics did not constitute the great majority of prescribed medications	Database
Rodieux et al., (28)	Limited medication information	Database

Supplementary Table 2. Results from the Downs and Black checklist. UTD, unable to determine.

Reporting	Jürgens et al., (29)	Arranz et al., (30)	Carrascal-Laso et al., (31)	Walden et al., (32)	Arranz et al., (33)	Kang et al., (34)
1. Is the objective of the study clear? (Yes/No)	1	1	1	1	1	1
2. Are the main outcomes clearly described in the Introduction or Methods? (Yes/No)	1	1	1	1	1	1
3. Are the characteristics of the patients included in the study clearly described? (Yes/No)	1	1	1	0	1	1
4. Are the interventions clearly described? (Yes/No)	1	1	1	1	1	1
5. Are the distributions of principal confounders in each group of subjects clearly described? (Yes/Partially/No)	2	2	2	2	2	2
6. Are the main findings of the study clearly described? (Yes/No)	1	1	1	1	1	1
7. Does the study estimate random variability in data for main outcomes? (Yes/No)	1	1	1	1	1	1
8. Have characteristics of patients lost to follow-up been described? (Yes/No)	1	0	0	1	0	1
9. Have actual probability values been reported for the main outcomes except probability < 0.001? (Yes/No)	1	1	0	1	1	1
10. Is the source of funding stated? (Yes/No)	1	1	1	1	1	1
External validity						

20. Were patients in different intervention groups recruited from the same population? (Yes/UTD/No)	1	1	1	1	1	1
21. Were study subjects in different intervention groups recruited over the same period of time? (Yes/UTD/No)	1	UTD	1	UTD	UTD	1
22. Were study subjects randomized to intervention groups? (Yes/UTD/No)	1	1	0	0	0	1
23. Was the randomized intervention assignment concealed from patients and staff until recruitment was complete? (Yes/UTD/No)	0	1	0	0	0	1
24. Was there adequate adjustment for confounding in the analyses from which main findings were drawn? (Yes/UTD/No)	1	1	0	0	0	0
25. Were losses of patients to follow-up taken into account? (Yes/UTD/No)	1	UTD	UTD	1	UTD	1
Power						
26. Did the study conduct a power calculation? (Yes/No)	1	1	1	0	0	1
Total (/27)	25	22	17	15	15	24

Supplementary Table 3. Results from the Consolidated Health Economic Evaluation Reporting Standards (CHEERS) 2022 checklist. N/A, not applicable.

Reporting	Herbild et al., (35)	Carrascal- Laso et al., (36)	Perlis et al., (37)	Ninomiya et al., (38)	Girardin et al., (39)	Kurylev et al., (40)	Rejon- Parrilla et al., (41)
Title							
1. Title	1	1	1	1	1	1	1
Abstract							
2. Abstract	1	1	1	1	1	1	1
Introduction							
3. Background and objectives	1	1	1	1	1	1	1
Methods							
4. Health economic analysis plan	0	0	0	0	0	0	0
5. Study population	1	1	1	1	1	1	1
6. Setting and location	1	1	0	1	1	1	0
7. Comparators	1	0	1	1	1	0	1
8. Perspective	0	0	0	1	1	0	0
9. Time horizon	0	0	0	1	1	0	1
10. Discount rate	0	0	0	1	0	0	1
11. Selection of outcomes	N/A	N/A	1	1	1	N/A	1
12. Measurement of outcomes	N/A	N/A	1	1	1	N/A	1

13. Valuation of outcomes	N/A	N/A	1	0	0	N/A	1
14. Measurement and valuation of resources and costs	1	1	1	1	1	1	1
15. Currency, price date, and conversion	1	1	1	0	0	0	0
16. Rationale and description of model	N/A	N/A	1	1	1	1	1
17. Analytics and assumptions	1	0	0	1	1	0	1
18. Characterizing heterogeneity	1	0	0	0	0	0	0
19. Characterising distributional effects	0	0	0	0	0	0	0
20. Characterizing uncertainty	1	0	1	1	1	1	1
21. Approach to engagement with patients and others affected by the study	0	0	0	0	0	0	0
Results							
22. Study parameters	N/A	N/A	1	1	1	1	1
23. Summary of main results	1	1	1	1	1	1	1
24. Effect of uncertainty	1	0	1	1	1	1	1
25. Effect of engagement with patients and others affected by the study	0	0	0	0	0	0	0
Discussion							
26. Study findings, limitations, generalizability, and current knowledge	1	1	1	1	1	0	1
Other relevant information							
27. Source of funding	1	0	0	1	1	0	1

28. Conflicts of interest	1	1	0	1	1	1	1
Total	70%	43%	57%	75%	71%	48%	71%

Supplementary Table 4. A summary of the GRADE ranking for each outcome.

Author	Studies	Risk of bias	Inconsistency	Indirect evidence	Imprecision	Final ranking
<i>Clinical outcomes</i>						
Adverse drug reactions	3	Minimal concerns	Minimal concerns	Serious	Serious	Low
Symptom severity	4	Serious	Serious	Serious	Serious	Very low
Clinicians' opinions	1	Serious	Serious	Serious	Very serious	Very low
Hospitalisation	3	Serious	Serious	Serious	Serious	Very low
Medication prescribing	2	Very serious	Minimal concerns	Minimal concerns	Serious	Very low
<i>Economic outcomes</i>						
Overall costs	2	Serious	Minimal concerns	Minimal concerns	Serious	Low
Inpatient costs	3	Serious	Minimal concerns	Minimal concerns	Serious	Low
Non-inpatient costs	2	Very serious	Serious	Minimal concerns	Serious	Low
Incremental cost-effectiveness ratio	4	Serious	Serious	Minimal concerns	Serious	Low

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