Table S11. Critical appraisal table for cohort studies on the use of VPA

Author	Year	Type of study	Selection (max 1 star)				Comparibility of cohorts (max 2 stars)	Outcome (max 1 star)			Verdict
			Representa titveness of cohort	Selection of non-exposed cohort	Ascertainment of exposure	Demonstration that outcome of interest was not present at start of study		Ascertainment of outcome	Long enough follow up	Adequace of follow up	
Chavez	2020	Retrospective cohort		*	*	*	**	*	*		Good
Lin	2018	retrospective cohort study	*	*	*	*	**	*	*		Good
Huang	2016	retrospective cohort study	*	*	*	*	**	*	*	*	Good
Kaae	2010	population-based cohort study	*	*	*	*	**	*	*	*	Good
Kang	2014	retrospective cohort study		*	*	*	**	*	*	*	Good
Singh	2011	cohort study	*	*	*	*	**	*	*	*	Good
Yang	2022	Nationwide cohort	*	*	*		**	*	*	*	Good

Table S12. Critical appraisal table for case control studies on the use of VPA

Author	Year	Type of study	Selection (max 1 star)			Comparability (max 2 stars)		Outcome (max 1 star)		Verdict
			Adequacy of case definition	Representativeness of the cases	Selection of controls	Definition of controls	Comparability of cases and controls	Ascertainment of outcome	Non-response rate	
George	2023	case-control	*	*	*	*	**	*	*	Good
Hallas	2009	case control	*	*	*	*	**	*	*	Good
Li	2024	Nested Case control	*	*	*	*	**	*	*	Good
Kristensen	2019	nested case control	*	*	*	*	*	*	*	Good
Salminen	2016	case-control	*	*	*	*	**	*	*	Good
Stritzelberger	2020	Nested case control	N/A	High risk of bias, not the aim of the study and not all data shown						Poor
Tilhonen	2022	case-control	*	*	*	*	**	*	*	Good

Table S13. Critical appraisal table for cohort studies on the use of lithium

Author	Year	Type of study	Selection (max 1 star)				Comparibility of cohorts (max 2 stars)	Outcome (max 1 star)			Verdict
			Representatitveness of cohort	Selection of non-exposed cohort	Ascertainment of exposure	Demonstration that outcome of interest was not present at start of study		Ascertainment of outcome	Long enough follow up	Adequace of follow up	
Asgari	2017	retrospective cohort		*	*	*	**	*	*	*	Good
Lin	2018	retrospective cohort study	*	*	*	*	**	*	*		Good
Cohen	1998		*	*	*	*	**	*	*	*	Good
George	2019	restrospective cohort study	*	*	*	*	**	*	*		Good
Huang	2016	retrospective cohort study	*	*	*	*	**	*	*	*	Good
Kessing	2015	Cohort (population based study)	*		*	*	**	*	*		Good
Kessing	2024	Cohort (Population based)	*	*	*	*	**	*	*	*	Good
Martinsson	2016	Cohort nationwide		*	*	*	**	*	*	*	Good
Zaidan	2014	retrospective cohort study	N/A - Data from cohort compared to general population, expressed as standardized incidence ratio; small cohort								Poor

Table S14. Critical appraisal table for case-control studies on the use of lithium

Author	Year	Type of study	Selection (max 1 star) Comparability				Comparability (Max 2 stars)	Outcome (max 1 star)		Verdict
			Adequacy of case definition	Representativeness of the cases	Selection of controls	Definition of controls	Comparability of cases and controls	Ascertainment of outcome	Non-response rate	
Hallas	2009	case control	*	*		*		*	*	Poor
Kahan	2018	Case-control study from large database	Data from large database, scale non-applicable, high risk of bias							Poor
Li	2024	Nested Case control	*	*	*	*	**	*	*	Good
Pottengard	2016 (1)	Nationwide case control study	*	*	*	*	**	*	*	Poor
Pottengard	2016 (2)	Case control study nationwide	*	*	*	*	**	*	*	Good
Tamim	2008	Nested case-control	*	*	*	*	Lithium not main question of study	*	*	Poor

Table S15. Critical appraisal table for cohort studies on the use of cimetidine

Author	Year	Type of study	Selection (max 1 star)				Comparability of cohorts (max 2 stars)	Outcome (max 1 star)			Verdict
			Representatitvenes s of cohort	Selection of non-exposed cohort	Ascertainment of exposure	Demonstration that outcome of interest was not present at start of study		Ascertain ment of outcome	Long enough follow up	Adequace of follow up	
Moller	1989	Cohort	No control, high risk of bias								Poor
Rossing	2000	Retrospective cohort study	*	*		*	**	*	*	*	Good
Velicer	2006	Cohort study		*		*	**	*	*	*	Fair

Table S16. Critical appraisal table for surveillance and case-control studies on the use of cimetidine

Author	Year	Type of study	Selection (max 1 star)				Comparibility (Max 2 stars)	Outcome (max 1 star)		Verdict
			Adequacy of case definition	Representativeness of the cases	Selection of controls	Definition of controls	Comparability of cases and controls	Ascertainment of outcome	Non-response rate	
Colin Jones	1985	case control study	No representative outcome; already had gastrcic ulcers, only age and sex matched controls							Poor
Colin Jones	1991	surveillance study	No control, N/A							N/A
Coogan	2005	Database study/case-control	*		*		**			Poor
Holly	1997	population-based case-control study				*	**	*		Poor
Mathes	2008	Population based case-control study	*	*	*	*	**	*		Good
Moller	1992	Case-control study	High risk of bias							Poor
Schumacher	1990	Case-control study	*	*			**			Poor

Table S17. Critical appraisal table for cohort studies on the use of haloperidol, clozapine, and olanzapine

Author	Year	Type of study	Selection (max 1 star)				Comparibility of cohorts (max 2 stars)	Outcome (max 1 star)			Verdict
			Representa titveness of cohort	Selection of non-exposed cohort	Ascertainment of exposure	Demonstration that outcome of interest was not present at start of study		Ascertainment of outcome	Long enough follow up	Adequace of follow up	
Tilhonen	2022	cohort study	*	*	*	**	*	*	*		Good
Wang	2002	Retrospective cohort	*		*	*	*	*	*	*	Good

Table S18. Critical appraisal table for case-control studies on the use of haloperidol, clozapine, and olanzapine

Author	Year	Type of study	Selection (max 1 star)				Comparibility (max 2 stars)	Outcome (max 1 star)		Verdict
			Adequacy of case definition	Representativeness of the cases	Selection of controls	Definition of controls	Comparibility of cases and controls	Ascertainment of outcome	Non-response rate	
Brainerd	2024	Case Control study	*	*	*	*	**	*	*	Good
Chen	2022	Case-control study	*	*	*	*	**	*	*	Good
Friedman	2020	Case-control	*	*	*	*	**	*	*	Good
Hsieh	2005	Database study/case-control	Scale not fully applicable due to study design, high risk of bias.							Poor; N/A
Pottengard	1997	population-based case-control study	*	*	*	*	**	*	*	Good
Tiihonen	1990	Case-control study	*	*	*	*	**	*	*	Good