Supplementary Online Content

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This supplementary material has been provided by the authors to give readers additional information about their work.

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eMethods. Full Search Strategy

PUBMED

("Depressive Disorder"[Mesh] OR "Depressive Disorder, Treatment-Resistant"[Mesh] OR "Bipolar Disorder" [Mesh] OR "Adjustment Disorders"[Mesh] OR "Affective Disorders, Psychotic"[Mesh] OR depress*[TIAB] OR ((bipolar[TIAB] OR affective[TIAB] OR adjust*) AND disorder*[TIAB]))
AND
("Vision, Low"[Mesh] OR ((VISUAL[TIAB] OR vision[TIAB] OR ocular[TIAB] OR eye*[TIAB]) AND (IMPAIRMENT[TIAB] OR low[TIAB])))

EMBASE

('low vision'/exp OR ((visual:ab,ti OR vision:ab,ti OR ocular:ab,ti OR eye*:ab,ti) AND (impairment:ab,ti OR low*:ab,ti))) AND ('depression'/exp OR 'treatment resistant depression'/exp OR 'bipolar disorder'/exp OR 'adjustment disorder'/exp OR 'affective psychosis'/exp OR depress*:ab,ti OR ((bipolar:ab,ti OR affective:ab,ti OR adjust*:ab,ti) AND disorder*:ab,ti))
AND
('article'/it OR 'article in press'/it OR 'note'/it OR 'review'/it OR 'short survey'/it)
AND
[english]/lim

Details and operationalization of the risk of bias assessment

A maximum of 10 stars was assigned in five domains (max 2 for each domain).

Lack of generalizability bias

We assessed the lack of generalizability bias based on two criteria: sampling consistent with our study objectives (adults treated in clinical or rehabilitation services) and an available definition of visual loss used as criterion to be diagnosed as having low vision.

We decided to assign 2 stars to studies that reported the inclusion of such patients and did not exclude patients with co-morbidities. If study participants were selected against strict and selective inclusion criteria, the study was considered to be affected by lack of generalizability bias and, consequently, assigned 1 or no stars.

We decided *a priori* to downgrade randomized controlled trials for lack of generalizability.

Record bias

We assigned two stars to prospective studies and one star to retrospective and registry-based studies.

Attrition bias

This assessment differed according to study design and considered the proportion and the characteristics of patients excluded or eligible but not included. We considered that the failure to include more than 10% of eligible patients was of concern, as was the fact that risk factors for depression, such as comorbidities, were more prevalent in patients who were lost.

Detection bias

For cross-sectional studies we assigned 2 stars to studies using the same diagnostic modality for all subjects and regardless of vision status. We downgraded 1 star if a masked assessment with respect to vision status was not used or was unclear.

Reporting bias

Our assessment of reporting bias focused on the pre-specification of methods used to diagnose depression and analyses methods. We assigned 2 stars to studies reporting analyses for all pre-specified diagnostic tools, including psychiatric examination or validated questionnaires, for which a protocol was available.

We assigned 1 star to registry-based studies or studies reporting only a subset of pre-specified diagnostic tools. No stars were assigned to studies reporting only the number of patients who were affected by depression with no details on the planned diagnostic process.

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eAppendix. Risk of Bias Assessment of Each Study

Study: Choi, 2019

Design: cross-sectional clinic-based

Domain	**N. stars**	**Explanation**
Lack of generalizability bias	**	Unclear if consecutive subjects, but probably so. Acceptable exclusions: cognitive impairment and previous psychiatric diagnoses. ICD 10th revision definition of VI.
Record bias	**	Prospective study
Attrition bias	**	No losses reported
Detection bias	*	Patient-only study, but no information on masking with respect to vision status
Reporting bias	**	BDI used only
Total score	**9**	

Study: Crewe, 2011

Design: cross-sectional clinic-based

Domain	**N. stars**	**Explanation**
Lack of generalizability bias	*	Randomly selected from register of VI. Acceptable exclusions: cognitive or neurological impairment. Definition of VI >0.6 logMar or <10° VF or both
Record bias	**	Prospective study
Attrition bias	*	>10% not included
Detection bias	**	Patient-only study
Reporting bias	0	Depression only self report
Total score	**6**	

Study: Girdler, 2010

Design: cross-sectional clinic-based

Domain	**N. stars**	**Explanation**
Lack of generalizability bias	*	Randomized controlled trial. Acceptable exclusions: not sufficient physical stamina, mental functioning, hearing and communication ability. Only patients <= 6/12 included

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Record bias	**	Prospective study
Attrition bias	0	% enrolled patients not specified
Detection bias	*	Patient-only study, no information on masking with respect to vision status
Reporting bias	**	GDS used only
Total score	**6**	

Study: Goldstein, 2012

Design: cross-sectional clinic-based

Domain	**N. stars**	**Explanation**
Lack of generalizability bias	*	Unclear if consecutive subjects, but probably so. Acceptable exclusions: patients unable to communicate in English by telephone. No visual impairment definition, but patients scheduled to attend low-vision services
Record bias	**	Prospective study
Attrition bias	*	>10% not included
Detection bias	*	Patient-only study, no information on masking with respect to vision status
Reporting bias	**	GDS used only
Total score	**7**	

Study: Goldstein, 2014

Design: cross-sectional clinic-based

Domain	**N. stars**	**Explanation**
Lack of generalizability bias	*	Unclear if consecutive patients, but probably so. Acceptable exclusions: patients unable to communicate by telephone. No visual impairment definition or other eligibility requirements, but patients scheduled to attend low-vision services
Record bias	**	Prospective study
Attrition bias	**	No losses reported
Detection bias	*	Patient-only study, no information on masking with respect to vision status
Reporting bias	**	GDS used only
Total score	**8**	

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Study: Haymar, 2007

Design: cross-sectional clinic-based

Domain	N. stars	Explanation
Lack of generalizability bias	*	Unclear if consecutive subjects, but probably so. Data collected at enrolment for a falls prevention trial. VI defined moderate logMAR 0.6-0.9; severe 0.91-1.3; profound 1.31-1.7; near total blindness >= 1.7
Record bias	**	Prospective study
Attrition bias	*	>10% not included
Detection bias	*	Patient-only study, no information on masking with respect to vision status
Reporting bias	**	GDS used only
Total score	**7**	

Study: Holloway, 2014

Design: cross-sectional clinic-based

Domain	N. stars	Explanation
Lack of generalizability bias	**	Unclear if consecutive subjects, but probably so. Acceptable exclusions: no adequate hearing, cognitive impairment. 50 subjects had a history of depression. Visual impairment categorized as mild (<6/12–6/18), moderate (<6/18–6/60), severe (<6/60)
Record bias	**	Prospective study
Attrition bias	*	16% screened subjects declined to take part to the study
Detection bias	*	Patient-only study, no information on masking with respect to vision status
Reporting bias	**	PHQ-2 used only
Total score	**8**	

Study: Horowitz a, 2005

Design: cross-sectional clinic-based

Domain	N. stars	Explanation
Lack of generalizability bias	*	Unclear if consecutive subjects, but probably so. Acceptable exclusions: not sufficient hearing and cognition, Parkinson, history of stroke-

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		No visual impairment definition, but patients scheduled to attend low-vision services
Record bias	**	Prospective study
Attrition bias	*	>10% not included
Detection bias	*	Patient-only study, no information on masking with respect to vision status
Reporting bias	**	DSM-IV criteria and CESDS combined
Total score	**7**	

Study: Horowitz b, 2005

Design: cross-sectional clinic-based

Domain	**N. stars**	**Explanation**
Lack of generalizability bias	*	Unclear if consecutive subjects, but probably so. No visual impairment definition, but patients scheduled to attend low-vision services
Record bias	**	Prospective study
Attrition bias	0	% enrolled patients not specified
Detection bias	*	Patient-only study, no information on masking with respect to vision status
Reporting bias	**	CESDS used only
Total score	**6**	

Study: Ip, 2000

Design: cross-sectional clinic-based

Domain	**N. stars**	**Explanation**
Lack of generalizability bias	**	All residents in a nursing home for older persons with IV. VI < 20/400
Record bias	**	Prospective study
Attrition bias	**	No patients excluded
Detection bias	*	Patient-only study, no information on masking with respect to vision status
Reporting bias	**	GDS used only
Total score	**9**	

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Study: Kemper, 2014

Design: cross-sectional clinic-based

Domain	N. stars	Explanation
Lack of generalizability bias	*	Cohort study, study group recruited as part of a randomized controlled trial. Acceptable exclusions: cognitive impairment, language or hearing problems, confinement in bed. No visual impairment definition, but patients scheduled to attend low-vision services
Record bias	**	Prospective study
Attrition bias	0	% enrolled patients not specified
Detection bias	*	Patient-only study, no information on masking with respect to vision status
Reporting bias	**	HADS used only
Total score	**6**	

Study: Nollet, 2019

Design: cross-sectional clinic-based

Domain	N. stars	Explanation
Lack of generalizability bias	*	Consecutive patients. Acceptable exclusions: patient too ill, dementia, recently bereaved. No visual impairment definition or other eligibility requirements, but patients seeking help for vision impairment at specialist visual rehabilitation services
Record bias	**	Prospective study
Attrition bias	*	>10% not included
Detection bias	*	Patient-only study, no information on masking with respect to vision status
Reporting bias	**	GDS-15 used only
Total score	**7**	

Study: Noran, 2008

Design: cross-sectional clinic-based

Domain	N. stars	Explanation
Lack of generalizability bias	*	Patient attending the eye clinic in random sample days. Acceptable exclusion: patients unable to communicate. >=3/60 VI<6/18 or VF<20°

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Record bias	**	Prospective study
Attrition bias	**	Cross-sectional data, no losses reported
Detection bias	*	No information on masking with respect to vision status
Reporting bias	**	GDS-15 used only
Total score	**8**	

Study: Oswley, 2004

Design: cross-sectional clinic-based

Domain	**N. stars**	**Explanation**
Lack of generalizability bias	*	Recruitment population: licensed drivers 60 years and older who had a crash in the year before. Acceptable exclusions: cognitive impairment. VI defined as VA 20/30-20/60, useful VF impairment or both
Record bias	**	Prospective study
Attrition bias	*	>10% not included
Detection bias	*	Patient-only study, no information on masking with respect to vision status
Reporting bias	**	CESDS used only
Total score	7	

Study: Rees, 2010

Design: cross-sectional clinic-based

Domain	**N. stars**	**Explanation**
Lack of generalizability bias	**	Unclear if consecutive subjects, but probably so. Acceptable exclusions: cognitive impairment and previous psychiatric diagnoses. VI <6/12
Record bias	**	Prospective study
Attrition bias	**	No losses reported
Detection bias	*	Patient-only study, no information on masking with respect to vision status
Reporting bias	**	PHQ-9 used only
Total score	9	

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Study: Rees, 2019

Design: cross-sectional clinic-based

Domain	N. stars	Explanation
Lack of generalizability bias	*	Baseline data from a randomized controlled trial. Acceptable exclusions: cognitive impairment. VI <6/12 and/or near VI
Record bias	**	Prospective study
Attrition bias	*	>10% not included
Detection bias	*	Patient-only study, no information on masking with respect to vision status
Reporting bias	**	CSDD used only
Total score	7	

Study: Renieri, 2013

Design: cross-sectional clinic-based

Domain	N. stars	Explanation
Lack of generalizability bias	*	Interventional clinic study enrolling consecutive patients scheduled for low vision service No visual impairment definition, but patients scheduled to attend low-vision services.
Record bias	**	Prospective study
Attrition bias	*	Cross-sectional use of data, but losses >10%
Detection bias	*	Patient-only study, no information on masking with respect to vision status
Reporting bias	**	HADS used only
Total score	7	

Study: Robertson, 2006

Design: longitudinal study, cross-sectional use of data

Domain	N. stars	Explanation
Lack of generalizability bias	*	Unclear if consecutive subjects, but probably so. Acceptable exclusions: second chronic illness in the preceding 12 months, cognitive dysfunction. No visual impairment definition, but patients registered in a society for the blind.
Record bias	**	Prospective study
Attrition bias	*	Response rate 25%

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Detection bias	*	Patient-only study, no information on masking with respect to vision status
Reporting bias	**	HADS used only
Total score	7	

Study: Shmuely-Dulitzki, 1995

Design: cross-sectional clinic-based

Domain	**N. stars**	**Explanation**
Lack of generalizability bias	*	Unclear if consecutive subjects, but probably so. No visual impairment definition, but patients attending low vision clinic
Record bias	**	Prospective study
Attrition bias	**	No losses reported
Detection bias	*	Patient-only study, no information on masking with respect to vision status
Reporting bias	**	DSM-III checklist for depression used only
Total score	8	

Study: Sturrock, 2014

Design: cross-sectional clinic-based

Domain	**N. stars**	**Explanation**
Lack of generalizability bias	**	Unclear if consecutive subjects, but probably so. Acceptable exclusions: cognitive impairment, not adequate hearing. VI < 6/12
Record bias	**	Prospective study
Attrition bias	**	No losses reported
Detection bias	*	Patient-only study, no information on masking with respect to vision status
Reporting bias	**	PHQ-9 used only
Total score	9	

Study: Van der Aa, 2014

Design: cross-sectional clinic-based

Domain	**N. stars**	**Explanation**
Lack of generalizability bias	*	Unclear if consecutive subjects, but probably so. Data from a randomized controlled trial.

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		Acceptable exclusions: no severe cognitive impairment. VI <=0.3 and/or VF <30°
Record bias	**	Prospective study
Attrition bias	*	30.5% response rate
Detection bias	*	Patient-only study, no information on masking with respect to vision status
Reporting bias	**	MINI used for depression diagnosis, CESDS for subthreshold depression.
Total score	7	

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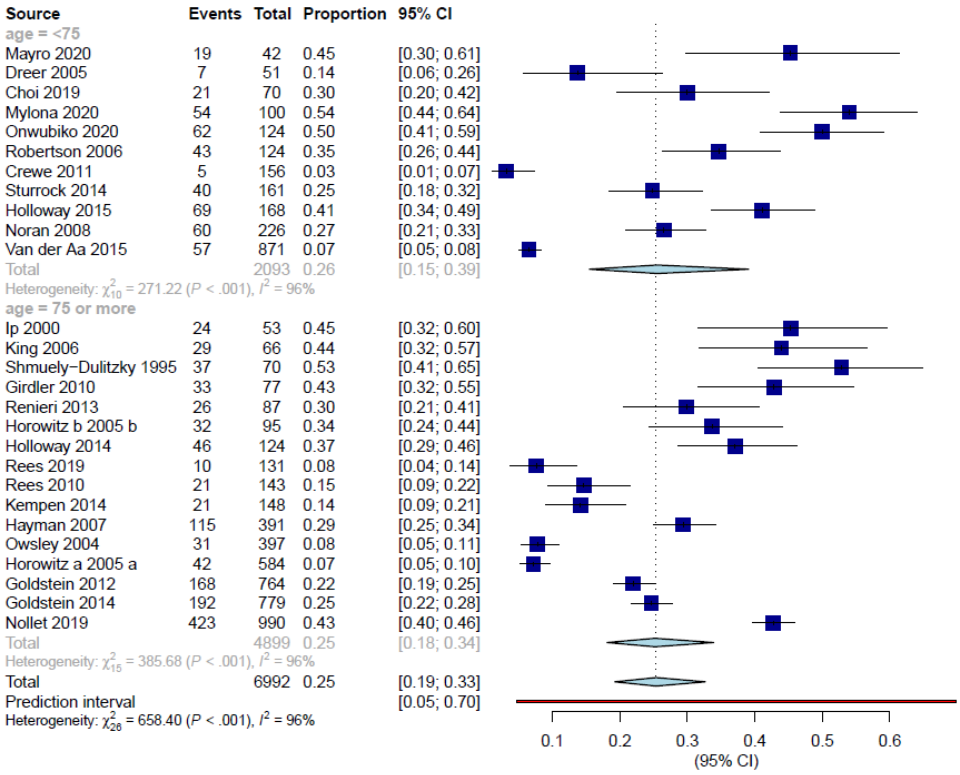
eFigure 1. Forest Plot of Prevalence of Depression According to Age (less than 75 years vs. 75 years or more)



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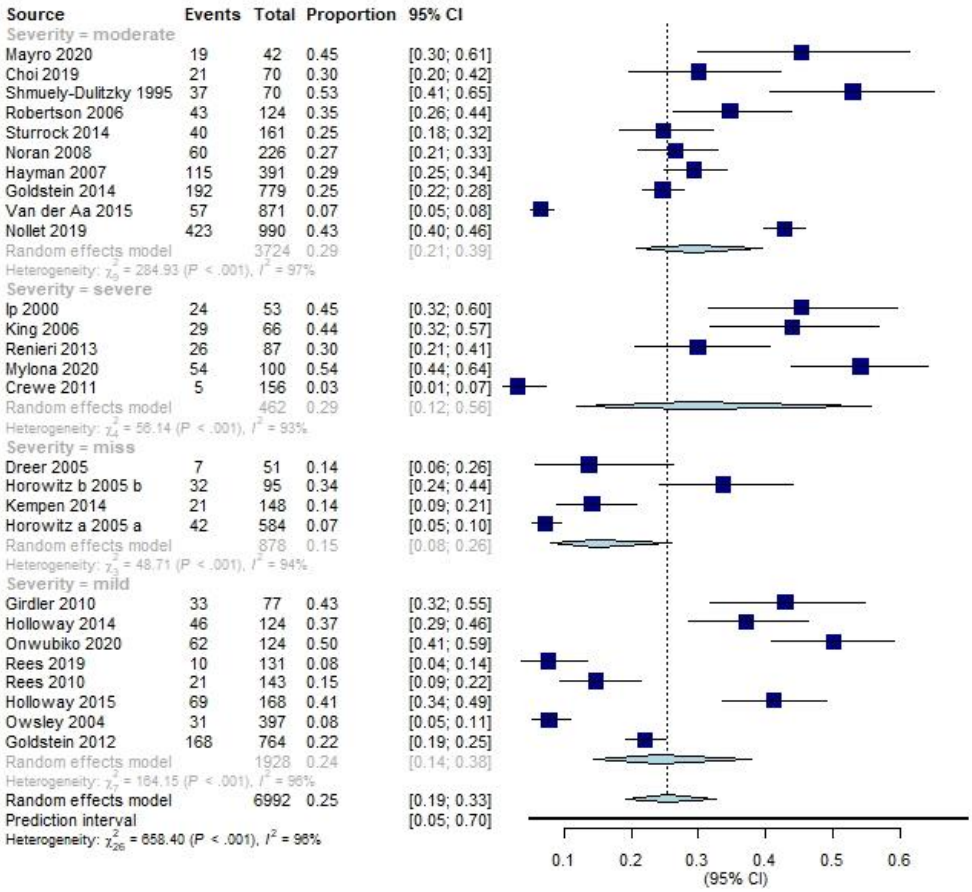
eFigure 2. Forest Plot of Prevalence of Depression According to Severity of Vision Impairment (mild, moderate, severe – see Methods)



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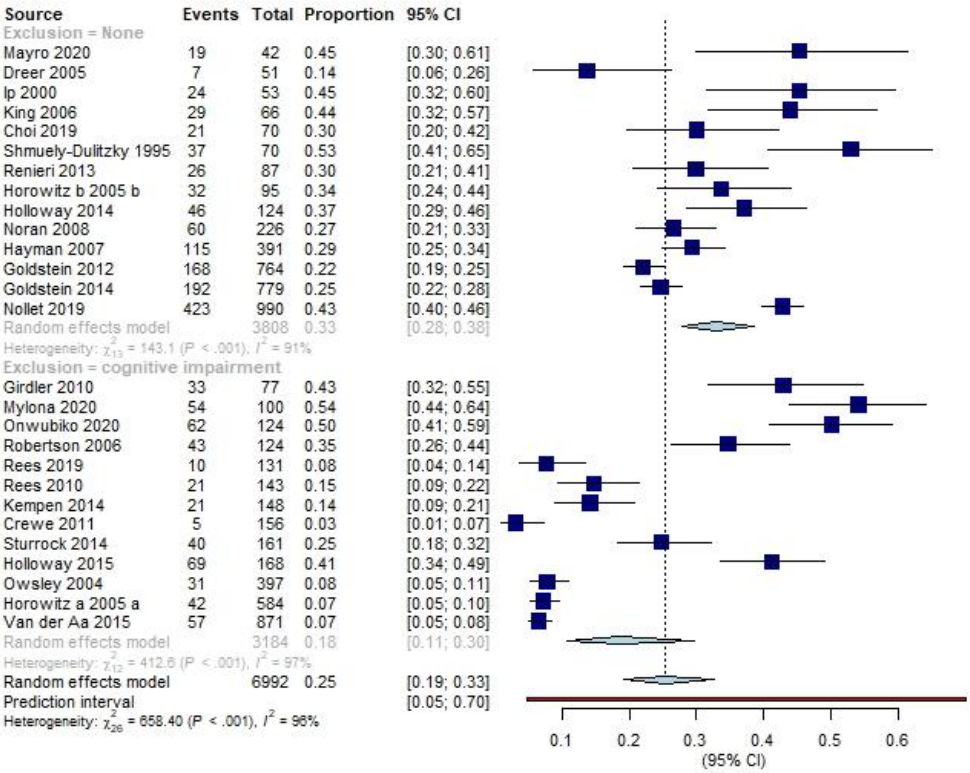
eFigure 3. Forest Plot of Prevalence of Depression According to Exclusions of Other Comorbidities (vs. no exclusion)



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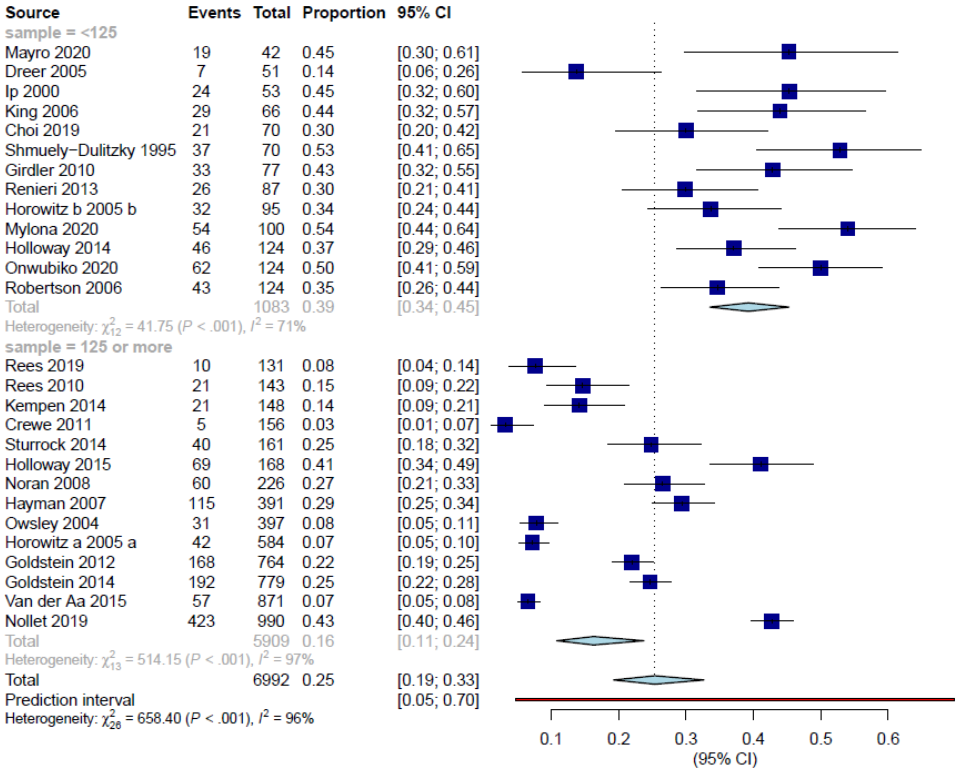
eFigure 4. Forest Plot of Prevalence of Depression According to Sample Size (smaller vs. larger than median 125 patients)



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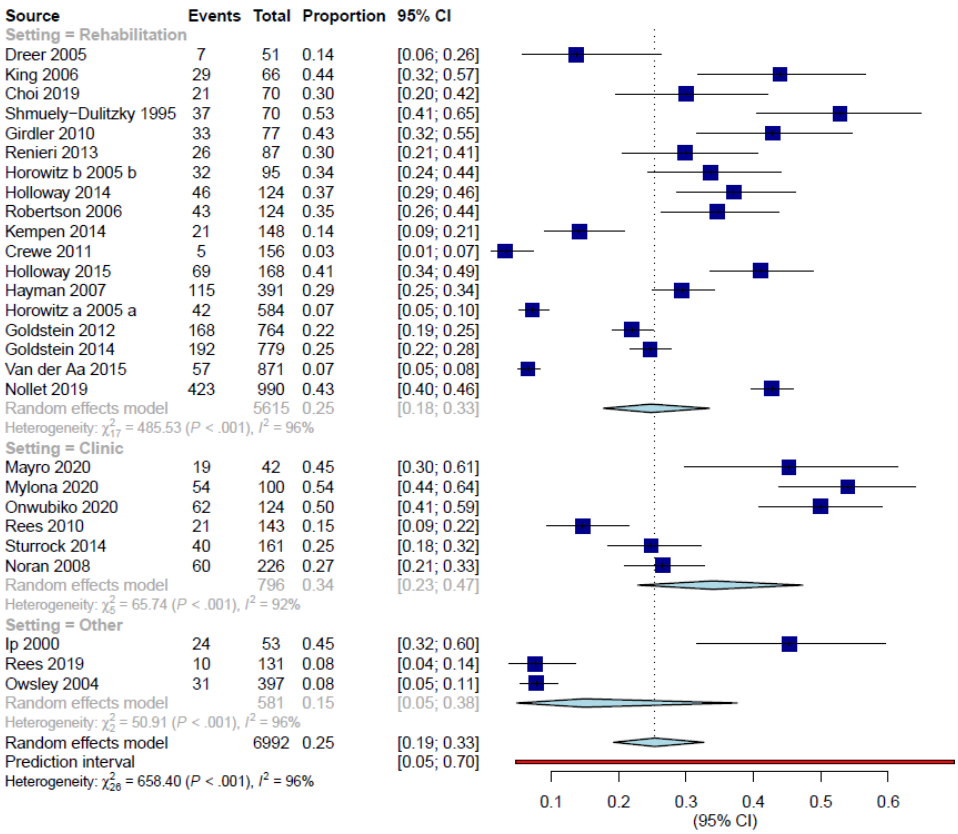
eFigure 5. Forest Plot of Overall Prevalence of Depression According to Setting



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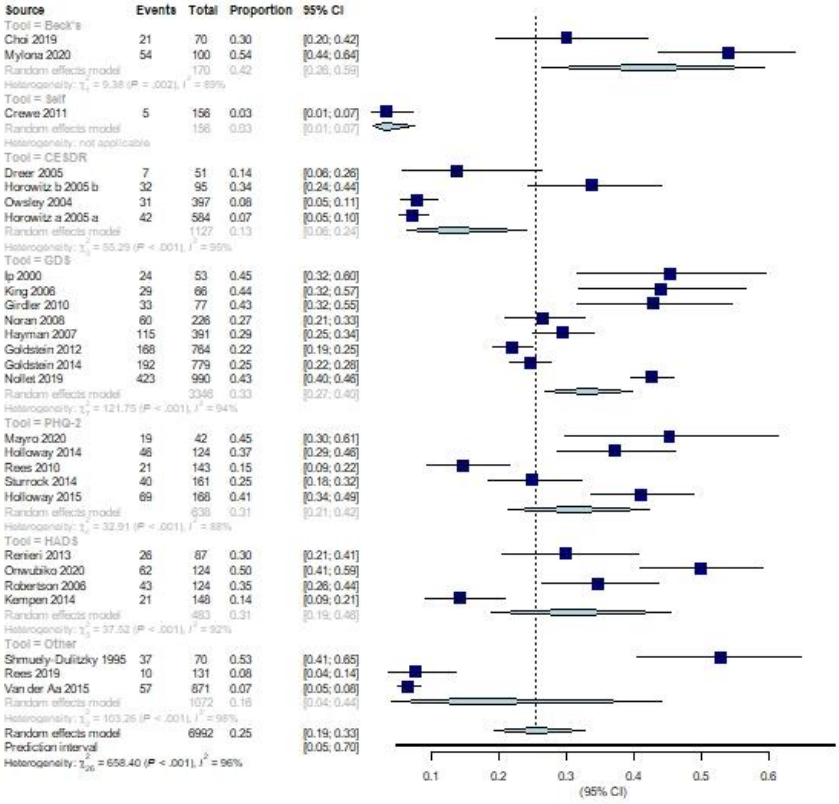
eFigure 6. Forest Plot of Overall Prevalence of Depression According to Depression Diagnostic Tool



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