INPLASY PROTOCOL

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Review Stage at time of this submission: **Preliminary searches.**

Conflicts of interest:
None.

Delirium screening tools in emergency department: a systematic review and meta-analysis

Zhang, Q[1]; Chen, M[2]; Guo, Z[3]; Ge, L[4].

Review question / Objective: **Studies meeting the following criteria are included: (1) population limited to ED patients; (2) index tests that included at least one delirium assessment tool for diagnosed patients (e.g., CAM, ICDSC), which was compared with the reference standards (Diagnostic and Statistical Manual of Mental Disorders [DSM]). (3) adequate information for the calculation of true positive (TP), false positive (FP), true negative (TN), and false negative (FN) values; and (4) cohort or cross-sectional designs.**
Condition being studied: **This paper was designed to assess the screening accuracy of different assessment tools for ED patients by using a network meta-analysis approach, and grade different methods of assessment using the superiority index.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 13 January 2021 and was last updated on 13 January 2021 (registration number INPLASY202110041).

INTRODUCTION

Review question / Objective: **Studies meeting the following criteria are included: (1) population limited to ED patients; (2) index tests that included at least one delirium assessment tool for diagnosed patients (e.g., CAM, ICDSC), which was compared with the reference standards (Diagnostic and Statistical Manual of Mental Disorders [DSM]). (3) adequate information for the calculation of true positive (TP), false positive (FP), true negative (TN), and false negative (FN) values; and (4) cohort or cross-sectional designs.**

Condition being studied: This paper was designed to assess the screening accuracy of different assessment tools for ED patients by using a network meta-analysis approach, and grade different methods of assessment using the superiority index.

METHODS

Participant or population: Population limited to emergency department patients.

Intervention: One delirium assessment tool for diagnosed patients (e.g., CAM, ICDSC).

Comparator: Reference standards (Diagnostic and Statistical Manual of Mental Disorders).

Study designs to be included: Cohort or cross-sectional designs.

Eligibility criteria: Studies meeting the following criteria are included: (1) population limited to ED patients; (2) index tests that included at least one delirium assessment tool for diagnosed patients (e.g., CAM, ICDSC), which was compared with the reference standards (Diagnostic and Statistical Manual of Mental Disorders [DSM]). (3) adequate information for the calculation of true positive (TP), false positive (FP), true negative (TN), and false negative (FN) values; and (4) cohort or cross-sectional designs.

Information sources: PubMed, PsycINFO, EMBASE, and the Cochrane Library will be used from the beginning of the study to January 2021.

Main outcome(s): True positive (TP), false positive (FP), true negative (TN), and false negative (FN) values.

Quality assessment / Risk of bias analysis: The Quality Assessment of Diagnostic Accuracy Studies 2 (QUADAS-2).

Strategy of data synthesis: The calculation of pooled sensitivity (SEN), specificity (SPE), negative likelihood ratio, positive likelihood ratio and diagnostic odds ratio (DOR) will be made by conducting a pairwise meta-analysis with a bivariate mixed-effects regression model in MetaDiSC ver 1.4 (Unit of Clinical Biostatistics Team of the Ramón y Cajal Hospital, Madrid, Spain).

Subgroup analysis: Subgroup analysis will include the study design, the type of reference standard and the study quality.

Sensibility analysis: Potential heterogeneity sources will be further researched by the analyses of subgroup and meta-regression.

Country(ies) involved: China.

Keywords: Delirium; Screening; Meta-analysis.

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