INPLASY

Exploring Thrombotic Sequelae in Non-Hospitalized COVID-19 Patients: A Systematic Review

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ADMINISTRATIVE INFORMATION

Support - Self.

Review Stage at time of this submission - Formal screening of search results against eligibility criteria.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY2023120097

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 25 December 2023 and was last updated on 25 December 2023.

INTRODUCTION

Review question / Objective What are the current estimates of major venous thromboembolic conditions such as venous thromboembolism (VTE) and pulmonary embolism (PE), as well as major arterial thromboembolic conditions such as coronary artery disease (CAD) and Ischemic stroke (IS) in Non-hospitalized Covid-19 patients ?
Are thrombotic events in Non-hospitalized Covid-19 patients under-reported?

Condition being studied Thrombotic or Thromboembolic sequelae in the context of Covid-19.

METHODS

Search strategy Ovid Medline, Ovid Embase and Ovid Web of Science. ("non hospitalized" or "out of the hospital" or "GP clinic" or "general practice") ("Covid 19" or "Sars Cov 2" or "Corona Virus)

First search started 10 May 2022, Second search 20 September 2023.

Participant or population Primary studies, prospective and retrospective, in COVID-19 patients who were positive or recovered with all non-hospitalization findings of thrombosis-related outcomes.

Intervention Estimation of thromboembolic events in Covid-19, Non-hospitalised individuals.

Comparator Covid-19 negative or general population.

Study designs to be included Primary studies (RCT), prospective and retrospective.

Eligibility criteria Inclusion criteria- Primary studies, prospective and retrospective, in COVID-19 patients with all non- hospitalization findings of thrombosis-related outcomes. Exclusion criteria- Studies of exclusion are all

hospital admitted cases and ICU related thrombotic complications, studies that focused on patients with pregnancy, pediatric population, vaccine related and secondary studies.

Information sources We conducted an initial search using the terms ("non-hospitalized," "out of the hospital," "GP clinic," or "general practice") and ("Covid 19" or "Sars Cov 2" or "Corona Virus) to find publications in the databases of Ovid Medline, Ovid Embase, and Ovid Web of Science. In order to arrange and eliminate duplicate files, references were exported to Endnote. After that, endnote references were exported to Covidence for additional content screening, data extraction, quality assessment, and screening of the title and abstract. At every step of the review process, we take care to screen the articles by at least two reviewers, with an additional reviewer helping to work out disagreements before including them..

Main outcome(s) Outcomes of interest are venous thromboembolism, pulmonary embolism, coronary artery disease, stroke and risk of hospitalization Effect measures- proportion of event rates, pooled incident rates, prevalence rates, risk ratios and odds ratios.

Additional outcome(s) Not applicable.

Data management This review will be performed in accordance with the PRISMA checklist reporting critical components of systematic reviews, such as identifying and screening studies, data extraction and assessing bias.
Two reviewers are responsible for applying eligibility criteria and choosing studies for inclusion in the systematic review. They individually screen records for inclusion, and the researchers are blinded to each other's decisions. In case of any disagreements between the individual assessments, a third reviewer resolves them. Covidence is utilized as a software system for assessing eligibility criteria, carrying out title and abstract reviews, conducting full text reviews, and determining inclusion for data extraction.
The study records will be analyzed to extract data pertaining to the author, study design and methods, region, participant demographics and baseline characteristics, comorbidities or risk factors, numbers of events, and measures of effect. There will be a total of two individuals responsible for extracting data. Both individuals will independently extract the data, and any discrepancies in their assessments will be handled through collaboration with a third reviewer. Unreported data will be addressed by reaching out to research investigators for that study to obtain the missing information. The date will be retrieved and documented in an Excel file using the Covidence software.

Quality assessment / Risk of bias analysis Two reviewers will independently assess the risk of bias in included studies using the Newcastle-Ottawa Scale (NOS). The lower the score, the greater the chance of bias. Domains for risk of bias in cohort studies will be assessed, which include the representativeness of the exposed cohort (non-hospitalized COVID-19 patients), selection of the non-exposed cohort (non-COVID-19 non-hospitalized individuals or general population), determining of exposure, comparability of cohorts based on the design or analysis, assessment of outcome, and duration. Whereas evaluation for risk of bias in case control studies includes sufficient definition and representativeness of the cases, selection and definition of the controls, comparability of cases and controls based on the design and analysis, ascertainment of exposure, and non-response rate.
Disagreements among findings will be handled by conversation or with the assistance of a third reviewer.

Strategy of data synthesis A meta-analysis of proportions will be done for the frequency of outcomes (venous and arterial thromboembolic events). For each outcome, the pooled proportions will be calculated using random effects model and risk ratios with their 95% confidence interval (CI) will be calculated/displayed in a forest plot. Heterogeneity will be assessed using I^2 tests.

Subgroup analysis Not applicable.

Sensitivity analysis Sensitivity analysis will be performed by constructing contour plots to show how point estimates (e.g., odds ratios, hazard ratios) vary with alternative assumptions, if necessary.

Language restriction None.

Country(ies) involved United Arab emirates, India, United States of America, United Kingdom.

Other relevant information Research ongoing, We are presently working on full text screening. The research has been delayed since its commencement due to the principal investigator's health issues.

Keywords Non-hospitalized; covid-19.

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