

Risk factors and its effects on the clinical outcomes of COVID-19 in children: systematic review and metanalysis

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Abstract

Objectives: To determine which risk factors contribute to worse COVID-19 outcome in children. **Methods:** Data sources: The review was conducted in Medline, CINAHL, Pubmed, Scopus, Web of Science, and LILACS. Study selection and data extraction: Articles published in the last year, written in Portuguese, English, and Spanish were included. Duplicates, editorials, letters to the editor, theses, dissertations, review articles, reports, case studies, and studies not addressing the theme were excluded. Controlled terms in Portuguese and English indexed in (DeCS) and (MeSH), and the Boolean operators “AND” and “OR” were used. **Synthesis:** The risk of bias was calculated using the R software, analysed by the GRADE system and using a funnel plot. All effects were analysed and calculated at a 95% confidence interval. The evidence level was analysed using Stillwell and collaborators’ proposal. **Results:** A total of 1,628 articles were found. All articles were written in English, one was published in 2019, and 10 in 2020. Six studies were descriptive, two were multicentric cohort studies, two were retrospective cohort studies, one was observational-retrospective, and most were evidence level VI. In essence, all studies pointed out that children with underlying diseases tend to develop more severe COVID-19 illnesses and more hospitalization than children without these diseases. **Conclusion:** The knowledge of the risk factors related to worse COVID-19 outcomes by professionals allow a better assessment of patients and make them able to act with greater precision in the promotion, prevention, and rehabilitation of these children.

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