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OCCUPATIONAL DERMAL EXPOSURE TO ALCOHOL-BASED DISINFECTANT PRODUCTS AGAINST COVID-19: A PROTOCOL FOR A SYSTEMATIC REVIEW

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ABSTRACT

Background: The COVID-19 pandemic has increased the use of hand sanitisers and surface disinfectants in the workplaces as a preventive measure for disease transmission. These are biocidal products that may be associated with adverse health outcomes. Skin reactions, as irritant contact dermatitis or allergic contact dermatitis, are the most commonly reported health effects.

Aim: The aim of this work is to present the protocol for a systematic review, intending to describe potential skin health effects associated with occupational dermal exposure to alcohol-based hand sanitisers and surface disinfectants and identify dermal exposure assessment methods applicable in manufacturing environment.

Methods: To ensure that the review methods are transparent and reproducible, it is essential to describe the protocol before the review. For this systematic review, studies will be searched through Pubmed and Web of Science databases. The search strategy developed will comprise the following terms (not exhaustive list): “SARS-Cov2”; “Skin exposure”; “chemical-skin interactions” “skin exposure assessment”; “skin diseases”; “Alcohol-based hand sanitisers”; “surface disinfectants”; “alcoholic antiseptic agents”. Eligible studies will be descriptive or analytical studies that report occupational dermal exposure to alcohol-based formulations used in manufacturing to control SARS-CoV-2 transmission. Only articles written in English, published in the period from 2010 to the year 2021, will be included. Studies about domestic uses of these products, developed in non-industrial activities, which do not include evaluations of occupational dermal exposure, will be excluded.

Results: A narrative synthesis of the available evidence will be adopted. Data synthesis will focus on the reported skin effects and dermal exposure assessment methods used, identify possible inconsistencies found across studies, and examine the strength and robustness of retrieved data

Conclusion(s): This review will identify and synthesize studies that establish the association between occupational dermal exposure to alcohol-based formulations and skin effects and also that describe methods to dermal exposure risk assessment. Additionally, needs for future research in this field, will be identified.

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