

# Hospital housekeeping team in the pandemic context: a scoping review protocol\*

Equipe de limpeza hospitalar no contexto pandêmico: protocolo de *scoping review*

Equipo de limpieza hospitalaria en el contexto de la pandemia: protocolo de revisión de alcance

Adaiele Lucia Nogueira Vieira da Silva<sup>1</sup>

ORCID: 0000-0003-4858-9339

Rosely Almeida Souza<sup>1</sup>

ORCID: 0000-0002-6712-8266

William Albuquerque de Almeida<sup>1</sup>

ORCID: 0000-0001-7074-1988

Liliane Moretti Carneiro<sup>1</sup>

ORCID: 0000-0003-3195-8767

Marcelo Alessandro Rigotti<sup>1</sup>

ORCID: 0000-0002-9234-6257

Adriano Menis Ferreira<sup>1</sup>

ORCID: 0000-0002-4054-768X

<sup>1</sup>Federal University of Mato Grosso do Sul, Campo Grande, MS, Brazil

## Editores:

Ana Carla Dantas Cavalcanti

ORCID: 0000-0003-3531-4694

Paula Vanessa Peclat Flores

ORCID: 0000-0002-9726-5229

Thalita Gomes do Carmo

ORCID: 0000-0002-5868-667X

## Corresponding author:

Adelaide Lucia Nogueira Vieira da Silva

E-mail: adaiele@hotmail.com

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## ABSTRACT

**Objective:** To map the scientific production about the performance of hospital housekeeping professionals during the COVID-19 pandemic. **Method:** The research will be conducted in the following electronic databases: PubMed/MEDLINE, Web of Science, Scopus Preview, Embase, Cochrane Library, Cumulative Index to Nursing and Allied Health Literature (CINAHL) and *Biblioteca Virtual da Saúde* (BVS). In the case of the Gray Literature, a search will be performed in the Brazilian Library of Theses and Dissertation, in Google Scholar and in Open Gray, without applying any filters. The eligibility criteria will be the following: studies available in full, published from December 2019 onwards, and that answer the research question proposed. Ongoing or preprint studies will be excluded. The titles and abstracts of all the studies found will be evaluated based on the eligibility criteria. The data extracted will be presented in diagrams or tables, accompanied by a narrative summary.

**Descriptors:** Personnel Administration, Hospital; COVID-19; Hospital Housekeeping Service.

## RESUMO

**Objetivo:** Mapear a produção científica acerca da atuação dos profissionais de limpeza hospitalar durante a pandemia da COVID-19. **Método:** A busca será realizada nas bases de dados eletrônicas: PubMed / MEDLINE, *Web of Science*, *Scopus Preview*, *Embase*, *Cochrane Library*, *Cumulative Index to Nursing and Allied Health Literature* (CINAHL) e *Biblioteca Virtual da Saúde* (BVS). Para análise na literatura cinzenta será realizada pesquisa na Biblioteca Digital Brasileira de Teses e Dissertações, *Google Scholar* e *Open Gray*, sem aplicação de filtros. Os critérios de elegibilidade serão: estudos disponíveis na íntegra, publicados a partir de dezembro de 2019, e que respondem à questão de pesquisa proposta. Estudos em andamento ou *preprint* serão excluídos. Será realizada a avaliação do título e do resumo de todos os estudos localizados, com base nos critérios de elegibilidade. Os dados extraídos serão apresentados em diagramas ou no formato tabular, sendo acompanhados por um resumo narrativo.

**Descritores:** Administração de Recursos Humanos em Hospitais; COVID-19; Serviço Hospitalar de Limpeza.

## RESUMEN

**Objetivo:** Mapear la producción científica acerca del desempeño de los profesionales de limpieza hospitalaria durante la pandemia de COVID-19. **Método:** La búsqueda se realizará en las siguientes bases de datos electrónicas: PubMed/MEDLINE, *Web of Science*, *Scopus Preview*, *Embase*, *Cochrane Library*, *Cumulative Index to Nursing and Allied Health Literature* (CINAHL) y *Biblioteca Virtual de la Salud* (BVS). En el caso de la investigación en la Literatura Gris, la búsqueda se realizará en la Biblioteca Digital Brasileña de Tesis y Disertaciones, en *Google Scholar* y en *Open Gray*, sin aplicar ningún filtro. Los criterios de elegibilidad serán los siguientes: estudios disponibles en su texto completo, publicados a partir de diciembre de 2019, y que respondan la pregunta de investigación propuesta. Se excluirán estudios en curso o en *preprint*. Se evaluarán los títulos y resúmenes de todos los estudios localizados sobre la base de los criterios de elegibilidad. Los datos extraídos se presentarán en diagramas o tablas, acompañados por un resumen narrativo.

**Descritores:** Administración de Recursos Humanos en Hospitales; COVID-19; Servicio de Limpieza Hospitalaria.

## INTRODUCTION

Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), as well as other emerging and re-emerging diseases, is a public health challenge worldwide. The Coronavirus disease (COVID-19) has rapidly spread around the world since it was first reported in Wuhan, China, in December 2019<sup>(1,2)</sup>.

Health professionals are essential in the continuous response to the SARS-CoV-2 pandemic, which exposes them to hazards that put them at risk of COVID-19 infection. Due to the COVID-19 pandemic, problems with health human resources have been increasingly on the rise: long working hours; increased frequency of incidents; low levels of collaboration between coworkers due to work overload; workers' absence due to illness; and tiredness and losses. All these situations tend to increase distress and exert negative impacts on performance of the work activities<sup>(3)</sup>.

Furthermore, the pandemic has brought to light important issues to consider, such as unhealthy work situations, shortage and devaluation of professionals, scarcity of materials and low adherence to the protocols and recommendations, which were longstanding problems that have worsened during the pandemic<sup>(4)</sup>.

This scenario involves hospital housekeeping professionals, a professional category that, in addition to performing heavy routine work, is little socially valued. The hospital housekeeping and disinfection activity does not require specific training; consequently, it gathers a segment of society with low schooling levels<sup>(5)</sup>. The profile of the hospital housekeeping professionals is mostly female<sup>(6)</sup>. These professionals are exposed to illness and to singularities of the work environment, which includes dealing with patients' pain, suffering and death<sup>(7)</sup>.

It is also important to note that hospital housekeeping is most often an outsourced service. This process implies offering a service that enables cost reductions and, consequently, lower qualifications. This increases the likelihood of work-related accidents, inadequate segregation of the waste from health services, negligence and incorrect use of Personal Protective Equipment (PPE)<sup>(8)</sup>.

The recent COVID-19 outbreak has increasingly indicated the need for appropriate hospital housekeeping, forcing countries to adopt measures to contain in-hospital infections so as to control the epidemic, including frequent cleaning of

surfaces and hospital beds<sup>(9)</sup>, a task attributed to cleaning professionals.

Even before the pandemic, there has always been concern about dissemination of microorganisms in hospital settings. However, the COVID-19 pandemic intensified the need for extreme precautions in terms of cleaning and disinfection in various environments and surfaces. In this context, the professionals belonging to the hospital housekeeping team consist of a large contingent of health workers that are essential in maintenance of a clean environment free of risks, especially for the COVID-19 infection. During the professional practice, they are exposed to hazards that put them at imminent risk of COVID-19 infection, being also fundamental in combating and interrupting the disease transmission chain in the hospital unit.

In view of the aforementioned context, the objective of this scoping review is to map the scientific production about the performance of hospital housekeeping professionals during the COVID-19 pandemic.

## METHOD

A scoping review will be conducted, based on the model proposed by the Joanna Briggs Institute (JBI), which understands these reviews as a way to map the main concepts that ground a given research area<sup>(9)</sup>. The protocol was registered at OSF with DOI 10.17605/OSF.IO/N6ZXY, which can be accessed at <https://osf.io/n6zxy/>.

Scoping reviews are defined as a way to map the main concepts that ground a given research area. This method has been widely used in the scientific community due to its ability to support decision-making by means of a literature review on a given topic<sup>(10)</sup>.

Considering the emergency of the content addressed and the scarcity of scientific evidence found about the subject matter, this model was chosen because it covers all types of scientific literature available, going beyond issues related only to the efficacy of an intervention or to the experience with treatments or care measures<sup>(10,11)</sup>.

A preliminary search was conducted independently by two researchers in the following databases: Open Science Framework (OSF), The Cochrane Library and PROSPERO, without identifying any protocol or review with a similar topic.

Subsequently, a search was conducted in PubMed and Google Scholar in order to identify the main descriptors used in research studies that address

the topic in question. The arrangement of the Descriptors in Health Sciences (*Descritores em Ciências da Saúde*, DeCS) and Medical Subject Headings (MeSH) was considered.

The PCC mnemonics was used to formulate the research question: P (Population) – Cleaning professionals; C (Concept) – COVID-19 pandemic; C (Context) – Hospital environment.

Once the mnemonics was defined, the following research question was obtained: "How have hospital housekeeping professionals performed in the COVID-19 pandemic context"?

### Eligibility criteria

The studies that will be considered eligible will be those available in full and that answer the guiding question. Scientific articles will be included, as well as editorials, theses, dissertations, manuals, protocols and unprecedented studies, including the Gray Literature. Considering the COVID-19 onset and identification period, a time clipping will be applied for research studies conducted from December 2019 onwards.

The studies that will be considered non-eligible will be those that are not aligned with the object of this study. Those whose locus is not the hospital environment will be disregarded, as well as those not addressing the performance of cleaning professionals. Ongoing or preprint studies will be excluded.

### Information sources

The research will be conducted in the following electronic databases: PubMed/MEDLINE, Web of Science, Scopus Preview, Embase, Cochrane Library, Cumulative Index to Nursing and Allied Health Literature (CINAHL) and *Biblioteca Virtual da Saúde* (BVS) A search for unpublished studies will also be performed, including the Gray Literature.

### Research strategy

A search strategy in three stages will be implemented to find published and unpublished studies. At a first moment, a limited initial search will be conducted in PubMed and CINAHL followed by the analysis of titles and abstracts with the objective of describing the data. Subsequently, a search will be performed in the aforementioned databases with all the descriptors and terms identified.

Finally, the references indicated in the studies will be listed, so that screening and inclusion can be performed, in case they answer the guiding question.

A search strategy according to the descriptors listed will be adopted, combining them with the "AND" and "OR" Boolean operators:

Medical Subject Headings (MeSH): Personnel Administration; Hospital; COVID-19; Housekeeping, Hospital

Descriptors in Health Sciences (DeCS): Human Resources Management in Hospitals; COVID-19; Hospital Housekeeping Service.

### Data extraction

The extracted data will be analyzed considering the review objectives and questions<sup>(10)</sup>. Data extraction will be conducted independently by two researchers, in the same period, following the established criteria. Any and all divergences will be solved by consensus or with the assistance of a third researcher, who will decide to include the study or not.

Whenever necessary, the authors of the primary studies will be contacted for further information and clarification. The current instrument can be modified according to the researchers' need, and a pilot test will be conducted before the data extraction phase.

The following data will be extracted from a spreadsheet built in Microsoft Excel 2010. A draft of the data extraction spreadsheet is provided in Figure 1.

In order to ensure the quality of this review, the recommendations included in the 2020 Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement will be used. The PRISMA checklist is divided into seven domains and 27 items, which contain recommendations on: title, abstract, introduction, method, results, discussion, conclusion and other information<sup>(11)</sup>.

The research results will be described in the scoping review and presented according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses - Extension for Scoping Reviews (PRISMA-ScR)<sup>(10,12)</sup>.

The studies will be classified into levels of evidence, as follows: 1) Systematic review studies, meta-analyses of randomized clinical trials, or derived from clinical guidelines based on systematic reviews of randomized controlled clinical trials; 2) Randomized clinical trial; 3) Clinical trial without randomization; 4) Cohort and case-control studies; 5) Systematic review of descriptive and qualitative studies; 6) Descriptive or qualitative research; and 7) Opinion articles by authorities and/or experts' committee reports<sup>(13)</sup>.

<b>Hospital housekeeping team in the pandemic context: A scoping review protocol</b>	
<b>Variable</b>	<b>Characteristics</b>
Data extraction tools	Responsible for data collection
Title	Identification of the study.
Authors	First author's educational degree, as indicated in the study itself. For Brazilian authors, via <i>Lattes Curriculum</i> .
Year	Year when the study was published.
Country of origin	Country where the study was developed.
Type of study	Method used to conduct the study.
Research objectives and questions	Details regarding the context in which the research was developed.
Results	Main study findings.
Relevant points	Relevant concepts for the review question.

**Figure 1** - Instrument developed by the researchers for data extraction, Campo Grande, MS, Brazil, 2021  
Source: Prepared by the authors, 2021.

Collection will be performed from October 10<sup>th</sup>, 2021 to October 31<sup>st</sup>, 2021. A descriptive data analysis will be conducted using absolute and relative frequencies; additionally, the results will be characterized and presented in tables, graphs and charts.

\*Paper extracted from the doctoral dissertation "Hospital housekeeping team in the pandemic context: a scoping review", presented to the Federal University of Mato Grosso do Sul, Campo Grande, MS, Brazil.

### CONFLICT OF INTERESTS

The authors have declared that there is no conflict of interests.

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<b>AUTHORSHIP CONTRIBUTIONS</b>
Project design: Silva ALNV, Souza RA, Ferreira AM
Data collection: Silva ALNV, Souza RA
Data analysis and interpretation: Silva ALNV, Souza RA, Ferreira AM
Writing and/or critical review of the intellectual content: Silva ALNV, Souza RA, Almeida WA, Carneiro LM, Rigotti MA, Ferreira AM
Final approval of the version to be published: Silva ALNV, Souza RA, Almeida WA, Carneiro LM, Rigotti MA, Ferreira AM
Responsibility for the text in ensuring the accuracy and completeness of any part of the paper: Silva ALNV, Souza RA, Almeida WA, Carneiro LM, Rigotti MA, Ferreira AM



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