

**Use of tools for transferring care in intensive care units: protocol for systematic review of observational studies**

*Uso de herramientas para el traslado de cuidados en unidades de cuidados intensivos: protocolo de revisión sistemática de estudios observacionales*

*Uso de ferramentas para transferência de cuidado em unidades de terapia intensiva: protocolo de revisão sistemática de estudos observacionais*

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**How to cite this article:**

Van-dúnem ASA, Freitas NO, Lima SAM, Kron-Rodrigues MR. Use of tools for transferring care in intensive care units: protocol for systematic review of observational studies. Glob Acad Nurs. 2020;1(3):e60.  
<https://dx.doi.org/10.5935/2675-5602.20200060>

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Chief Editor: Caroliny dos Santos Guimarães da Fonseca  
Executive Editor: Kátia dos Santos Armada de Oliveira

**Submission:** 09-20-2020

**Approval:** 09-30-2020

**Abstract**

The aim was to outline the protocol for the preparation of the systematic review that will aim to identify the effectiveness of using care transfer tools for patients admitted to the intensive care unit (ICU). Systematic review of the standards of the MOOSE checklist (Meta-analyses of Observational Studies in Epidemiology) with consultation in the PubMed, Embase, Cochrane Library and LILACS databases until August 2020. The Health Sciences Descriptors (DECs) will be used: "Patient Handoff", "Continuity of Patient Care", "SBAR", "ISBAR", "SBAR-R", "ISBARR", "ISOBAR", "Communication" and "Intensive Care Units". Observational studies that report the use of any tools for transferring care in patients admitted to any ICU will be included. Reviewers will independently track eligible articles; extract the data and assess the risk of bias. If possible, the study will include meta-analysis and if it is not plausible, the results will be compiled and presented in a table. The present study aims to identify solid and robust evidence to be used in clinical practice regarding the transition of care in patients hospitalized in ICUs.

**Descriptors:** Transfer of Responsibility for the Patient; Continuity of Patient Care; Intensive Care Units; Systematic Review.

**Resumen**

El objetivo fue perfilar el protocolo para la elaboración de la revisión sistemática que tendrá como objetivo identificar la efectividad del uso de herramientas de transferencia de cuidados para los pacientes ingresados en la unidad de cuidados intensivos (UCI). Revisión sistemática de los estándares de la lista de verificación MOOSE (Metanálisis de Estudios Observacionales en Epidemiología) con consulta en las bases de datos PubMed, Embase, Cochrane Library y LILACS hasta agosto de 2020. Se utilizarán los Descriptores de Ciencias de la Salud (DECs): "Paciente Handoff", "Continuidad de la Atención al Paciente", "SBAR", "ISBAR", "SBAR-R", "ISBARR", "ISOBAR", "Comunicación" y "Unidades de Cuidados Intensivos". Se incluirán estudios observacionales que reporten el uso de cualquier herramienta para la transferencia de atención en pacientes ingresados en cualquier UCI. Los revisores realizarán un seguimiento independiente de los artículos elegibles; extraer los datos y evaluar el riesgo de sesgo. Si es posible, el estudio incluirá un metanálisis y si no es plausible, los resultados se compilarán y presentarán en una tabla. El presente estudio tiene como objetivo identificar evidencia sólida y robusta para ser utilizada en la práctica clínica con respecto a la transición de la atención en pacientes hospitalizados en UCI.

**Descriptors:** Transferencia de Responsabilidad del Paciente; Continuidad de la Atención al Paciente; Unidades de Cuidados Intensivos; Revisión Sistemática.

**Resumo**

Objetivou-se delinear o protocolo da elaboração da revisão sistemática que terá o objetivo de identificar a efetividade do uso de ferramentas de transferência do cuidado para pacientes internados em unidade de terapia intensiva (UTI). Revisão sistemática nas normativas do check-list MOOSE (Meta-analyses Of Observational Studies in Epidemiology) com consulta nas bases de dados PubMed, Embase, Cochrane Library e LILACS até agosto de 2020. Serão utilizados os Descriptores em Ciências da Saúde (DECs): "Patient Handoff", "Continuity of Patient Care", "SBAR", "ISBAR", "SBAR-R", "ISBARR", "ISOBAR", "Communication" e "Intensive Care Units". Serão incluídos estudos observacionais que reportarem a utilização de quaisquer ferramentas para transferência do cuidado em pacientes internados em qualquer UTI. Revisores rastrearão independentemente artigos elegíveis; extrairão os dados e avaliarão o risco de viés. Se possível, o estudo contemplará metanálise e caso não seja plausível, os resultados serão compilados e apresentados em forma de tabela. O presente estudo visa identificar evidências sólidas e robustas para serem utilizadas na prática clínica quanto a transição do cuidado em pacientes hospitalizados em UTIs.

**Descritores:** Transferência da Responsabilidade pelo Paciente; Continuidade da Assistência ao Paciente; Unidades de Terapia Intensiva; Revisão Sistemática.



## Introduction

Communication is understood as a process by which sharing and understanding of messages sent and received occur, involving how the content of these messages influence the present and future behavior of the people involved in the process<sup>1</sup>.

It is estimated that communication must be adequate and efficient among health professionals, as it is considered one of the aspects that compromises the safety of the client. Data from the International Joint Commission (JCI) reveal that communication problems can influence up to 70% of adverse events (EAs), the main communication failures being information that was never transmitted; the information that was given, but received inaccurately and finally the information transmitted, but never received<sup>2</sup>.

To assist communication and make it safe and effective, one of the strategies is the use of standardized instruments, which allow the transfer of information in an effective, objective, and synthetic way among the members of the health team<sup>3</sup>.

Thus, the care transfer tool is a strategy instituted by the Joint Commission International (JCI), in response to the increase in notification of AEs related to communication failure worldwide<sup>2,3</sup>.

These tools in health institutions, represent standards in a standardized form including mnemonics that establish topics and sequences that professionals must follow to transfer care. There are mnemonics for different in-hospital and extra-hospital contexts, such as: DeMIST (ambulance teams), AIDET (perioperative), SBAR (ICU, transport), AIHICE (emergency), among others<sup>4</sup>.

The SBAR is a transfer instrument commonly used in the ICU, as it is well structured, known and used by health services due to its simplicity that allows the transfer of care to be structured according to its categories: Situation - Background - Assessment - Recommendation, where its translation means, Brief history, Evaluation and Recommendation of the patient<sup>5</sup>.

In the Intensive Care Unit (ICU), effective communication becomes essential among health professionals, due to the intensity of information, procedures, advanced technologies aimed at diagnosing, monitoring and specific drug therapy associated with the clinical conditions of patients<sup>6,7</sup>.

Patient transfer refers to the process of transferring care to a patient, from a health professional to another professional and involves transferring information, responsibilities, and authorities. Transfers should provide complete, accurate and up-to-date information about the patient's condition, care plan, illness or recommendations<sup>3</sup>.

It is known that the use of instruments for the transfer of care allows all information to be provided in a systematic and sequential manner, thus reducing the forgetfulness of relevant patient information, and minimizing the vulnerability regarding the occurrence of AEs

and favoring the verbal communication process. and writing among health professionals<sup>2-4</sup>.

Thus, this article deals with the protocol for the preparation of the systematic review that will aim to identify the effectiveness of using care transfer tools for ICU patients.

## Methodology

This is a bibliographic study, systematic review that will be carried out according to the standards of the MOOSE checklist (Meta-analyses of Observational Studies in Epidemiology)<sup>8</sup>.

## Eligibility Criteria

Observational studies that assess the effectiveness of the use of tools for transferring care in patients admitted to the ICU will be included. Observational studies following the "PICO" methodology described below will be included. Population: Patients admitted to any ICU; I: Use of tools for the transition of care; C: Not using care transition tools and O: actions for the health team and the patient hospitalized in the ICU.

Observational studies that report the use of any tools for the transition of care in patients admitted to any ICU will be included. The exposure of interest will be the outcomes associated with the impact on the health team and patients hospitalized in the ICU.

Exclusion criteria: studies did not report any outcome associated with health safety team and / or patient hospitalized in the ICU, studies that applied the instrument of transition of care in other wards of the hospital, studies that the patients were in transit (being transferred or leaving the ICU for other units), studies that apply the instrument as a form of team training, integrative and literature review studies, books, chapters and book reviews, manuals, technical reports.

## Search strategy

The National Center for Biotechnology Information (NCBI / PubMed), Embase, Cochrane Library, Latin American and Caribbean Literature in Health Sciences (LILACS) electronic databases will be consulted until August 2020 and the gray literature will be traced through the Google Scholar base and Catalog of Theses & Dissertations - CAPES.

The basic search strategy will be developed for PubMed (Figure 1) and modified as needed for other databases. The health descriptors available in Health Sciences Descriptors (DECs) and Medical Subject Heading (MeSH) will be used. The descriptors used will include "Patient Handoff", "Continuity of Patient Care", "SBAR", "ISBAR", "SBAR-R", "ISBARR", "ISOBAR", "Communication" and "Intensive Care Units". There will be no language restriction, but only human studies will be selected. References of selected articles, including relevant review articles, will be reviewed to identify all relevant studies.



**Figure 1.** Search strategy developed for PubMed and adapted to other databases. Guarulhos, SP, Brazil, 2020

#1 "Patient Handoff"[Mesh] or (handoff, patient) or (handoffs, patient) or (patient handoffs) or (patient hand over) or (hand over, patient) or (hand overs, patient) or (patient hand overs) or (patient sign out) or (sign out, patient) or (sign outs, patient) or (patient signout) or (patient signouts) or (signout, patient) or (signouts, patient) or (patient signover) or (patient signovers) or (signover, patient) or (signovers, patient) or (patient hand off) or (hand off, patient) or (hand offs, patient) or (patient hand offs) or (patient sign outs) or (patient handover) or (handover, patient) or (handovers, patient) or (patient handovers) or (nursing handoff) or (handoff, nursing) or (handoffs, nursing) or (nursing handoffs) or (nursing hand offs) or (nursing handover) or (handover, nursing) or (handovers, nursing) or (nursing handovers) or (nursing hand overs) or (nursing hand off hand off, nursing) or (hand offs, nursing) or (nursing hand over hand over, nursing) or (hand overs, nursing) or (clinical handoffs) or (clinical handoff handoff, clinical) or (handoffs, clinical) or (clinical handover clinical handovers) or (handover, clinical) or (handovers, clinical)

#2 "Continuity of Patient Care"[Mesh] OR (Care Continuity, Patient) OR (Patient Care Continuity) OR (Continuum of Care) OR (Care Continuum) OR (Continuity of Care) OR (Care Continuity)

#3 SBAR OR ISBAR OR SBAR-R OR ISBARR OR ISOBAR

#4 "Communication"[Mesh] OR (Personal Communication) OR (Communication, Personal) OR (Misinformation) OR (Communication Programs) OR (Communication Program) OR (Program, Communication) OR (Programs, Communication) OR (Communications Personnel) OR (Personnel, Communications)

#5 "Intensive Care Units"[Mesh] OR (Care Unit, Intensive) OR (Care Units, Intensive) OR (Intensive Care Unit) OR (Unit, Intensive Care) OR (Units, Intensive Care)

(#1 OR #2 OR #3 OR #4) AND #5

### Selection of studies and data extraction

For this review, two researchers will review the eligibility titles and summaries independently. Disagreements regarding the selection of articles will be resolved by consensus or discussion with a third investigator. The study selection flowchart will be created according to the PRISMA guidelines<sup>9</sup>. Two researchers will independently extract the relevant data from each full-text article using a standardized form based on the Cochrane Handbook<sup>10</sup> with the following information: study location, authors, study with funding, number of participants, study objective, study population, transition tool care used, outcomes analyzed and follow-up.

The selection will be compared for accuracy, and any discrepancies will be resolved by consensus or discussion with another investigator.

### Bias risk assessment in observational studies

The Newcastle-Ottawa Scale (ENO)<sup>11</sup> will be used to assess the methodological quality of observational studies by two independent reviewers. Discrepancies will be resolved by discussion with the third author.

The scale consists of eight items that cover three dimensions: 1) selection of patients (four items); 2) comparability of the two branches of the study (two items); and 3) evaluation of the result (three items). Subsequently, the risk of bias graph will be drawn up in the Review Manager (RevMan) software, (version 5.3; Nordic Cochrane Center, Cochrane)<sup>12</sup>.

### Data analysis

If possible, this systematic review will include meta-analysis and, in this case, random effect models and the Mantel-Haenszel method will be used, as well as associations will be reported as relative risks (RR) and their 95% confidence intervals (CI). Heterogeneity will be tested with the Cochrane test  $\chi^2$ , and the degree of heterogeneity will be quantified with the I2 statistic and its 95% CI. An I2 value between 30% and 60% will be described as moderate heterogeneity.

Publication bias will be assessed with the funnel plots and formally tested with the Egger test if there is a minimum inclusion of ten studies. For the variability in the results between the studies, the I2 statistic and the P value obtained from the Chi-square Cochrane test will be used. If it is not plausible for a meta-analysis, the results will be compiled and presented in a table and the content analyzed by similarity.

This systematic review is exempt from ethical analysis, according to Art. 1, of Resolution no. 510, of April 7, 2016, as it is a review of the scientific literature<sup>13</sup>.

### Expected Results

It is expected that with the preparation of this review, solid and robust evidence will be identified to be used in clinical practice regarding the use of tools in the transition of care for patients hospitalized in ICUs, in addition to contributing to health institutions for the implementation



of measures that corroborate the team's work in health and enable effective assistance and patient safety.

### Final Considerations

Well-designed systematic review studies with methodological rigor answer questions that are still open in

the literature and, later, encourage future studies. The results may also help health services that already use this system, demonstrate factors to improve the care provided to patients admitted to ICUs, as well as contribute to the current literature on the subject.

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