

Hospital discharge of adults and older adults: checklist elaboration and validity

Alta hospitalar de pacientes adultos e idosos: elaboração e validação de *checklist*
Alta hospitalaria de pacientes adultos y mayores: elaboración y validación de *checklist*

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Abstract

Objective: To describe content elaboration and validity of a checklist for preparing adults and older adults for hospital discharge.

Methods: This is a methodological study, developed from May 2020 to September 2022 (in two stages), for checklist elaboration and validity. The Delphi technique was used, with assessment by an expert committee for content validity. To calculate the degree of agreement, the agreement rate and the Content Validity Index (CVI) were used.

Results: A checklist with 17 items that help organize hospital discharge was prepared and validated. The checklist was prepared based on the compilation of results obtained from interviews with multidisciplinary team professionals, who worked in inpatient units, an integrative review on transition of care at hospital discharge of adult patients and reading of articles on the use of discharge checklist. In the first stage of validity, a mean was obtained for the instrument's agreement rate, scope (94%) and relevance (91%). At the end of the second round, the mean CVI calculation was obtained (clarity: 0.95; relevance: 0.96).

Conclusion: The checklist was validated as to its content by consensus by an expert committee, and can be used by care teams or hospital discharge management.

Resumo

Objetivo: Descrever a elaboração e a validação do conteúdo de um *checklist* para o preparo da alta hospitalar de pacientes adultos e idosos.

Métodos: Estudo metodológico desenvolvido de maio de 2020 a setembro de 2022 (em duas etapas) para elaboração e validação do *checklist*. Foi usada a técnica Delphi, com avaliação por um comitê de especialistas para validação de conteúdo. Para o cálculo do grau de concordância, utilizou-se a taxa de concordância e o Índice de Validade de Conteúdo (IVC).

Resultados: Foi elaborado e validado um *checklist* com 17 itens que ajudam a organizar a alta hospitalar. O *checklist* foi elaborado partindo da compilação dos resultados obtidos em entrevistas realizadas com os profissionais de uma equipe multidisciplinar, os quais atuavam em unidades de internação, revisão integrativa sobre a transição do cuidado na alta hospitalar de pacientes adultos e leitura de artigos sobre o uso de *checklist* para a alta. Na primeira etapa de validação, foi obtida uma média para a taxa de concordância, para abrangência (94%) e pertinência (91%) do instrumento. Ao final da segunda rodada, foi obtida a média do cálculo do IVC (clareza: 0,95; pertinência: 0,96).

Conclusão: O *checklist* foi validado quanto ao seu conteúdo por consenso pelo comitê de especialistas, podendo ser utilizado por equipes assistenciais ou de gestão de altas hospitalares.

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Conflicts of interest: Paper extracted from a professional master's thesis.

Resumen

Objetivo: Describir la elaboración y la validación del contenido de una *checklist* para la preparación del alta hospitalaria de pacientes adultos y mayores.

Métodos: Estudio metodológico llevado a cabo de mayo de 2020 a septiembre de 2022 (en dos etapas) para la elaboración y validación de la *checklist*. Se utilizó el método Delphi, con evaluación realizada por un comité de especialistas para la validación de contenido. Para calcular el nivel de concordancia, se utilizó el índice de concordancia y el Índice de Validez de Contenido (IVC).

Resultados: Se elaboró y validó una *checklist* con 17 ítems que ayudan a organizar el alta hospitalaria. La *checklist* fue elaborada a partir de la compilación de los resultados obtenidos en entrevistas realizadas a profesionales de un equipo multidisciplinario que trabajaban en unidades de internación, de revisiones integradoras sobre la transición del cuidado en el alta hospitalaria de pacientes adultos y de la lectura de artículos sobre el uso de *checklists* para el alta. En la primera etapa de validación, se obtuvo un promedio del índice de concordancia, respecto al alcance (94 %) y pertinencia (91 %) del instrumento. Al final de la segunda ronda, se obtuvo el promedio del cálculo del IVC (claridad: 0,95; pertinencia: 0,96).

Conclusión: La *checklist* fue validada en cuanto a su contenido por consenso del comité de especialistas y puede ser utilizada por equipos asistenciales o de gestión de altas hospitalarias.

Introduction

The need for hospitalization generated by the increase in the incidence of chronic diseases is reflected in demands both in the process of returning home and in the transition between levels of care.⁽¹⁾ In this regard, transitional care is a tool that qualifies assistance through more effective and planned interventions, integrating the different points of the Health Care Network (RAS - *Rede de Atenção à Saúde*).⁽²⁾

Nurses are strategic professionals in coordinating care. They work together with multidisciplinary teams, being attentive to users' and their families' needs.^(3,4) In countries such as Spain and Canada, there are nurses responsible for coordinating hospital discharge who help the multidisciplinary team prepare patients and their families, establish a care plan for discharge and transfer information to Primary Health Care (PHC).^(5,6) These transitional nurses are the main articulators not only among team professionals but also between the different levels of health care; to do so, they need to know the resources needed to ensure a safe transition.

The benefits related to continuity of care include an adequate individualization of care, an improvement in the relationship between health professionals, patients and their families and a decrease in the misuse of health services, resulting in cost reductions.⁽⁷⁾

However, the moment of hospital discharge can be vulnerable, especially for patients with several comorbidities, as they depend on factors such as their needs and degree of dependency, the

support network and access to other health services. Thus, practices that aim to improve hospital discharge management can help in continuity of patient care.⁽⁸⁾

For example, the preparation of patients and their caregivers for a qualified discharge considers aspects such as planning and structuring discharge, organization of family and their caregivers as well as support of health care networks for continuity of care. This process begins at the admission of each patient, and must follow standardized steps so that transitions are safe. It is then possible to identify and organize patients' needs for hospital discharge.⁽⁹⁾

In this context, the multidisciplinary team can use instruments that help in the quality and safety of care. The checklist is a structured tool that contains complex items or activities, which must be considered to confirm that the necessary actions and interventions are being performed during the performance of some activity.⁽¹⁰⁾ These are simple and cost-effective tools that can be replicated in different areas to improve the standard of care.^(11,12)

Authors reported that the use of checklists helps to improve care, and may reduce adverse events associated with the transfer of information when failures are identified in aspects related to quality and safety of care.^(11,12) One study showed that the use of checklists ensures that all relevant aspects related to hospital discharge were considered, in addition to structuring interprofessional communication, which is essential for safe transition of care.⁽¹³⁾

We emphasize that there are gaps in the national scientific literature of checklists encompass-

ing the dehospitalization process and continuity of post-discharge care. Considering the importance of qualifying hospital discharge and using tools to help the multidisciplinary team in its planning, it was verified that it is necessary to elaborate a checklist for hospital discharge, not only to help the teams in preparing patients and their families for dehospitalization, but also to organize the transfer of care to other points of the RAS.

This study aimed to describe the content elaboration and validity of a checklist to prepare adults and older adults for hospital discharge.

Methods

This methodological study was obtained through the elaboration of a checklist for preparation of hospital discharge of adults and older adults, and the validity of its content by expert consensus.⁽¹⁴⁾

The first version of the checklist was based on an integrative review on the transition of care in hospital discharge of adult patients⁽¹⁵⁾ and reading articles on the use of checklists for hospital discharge.^(12,16) Furthermore, semi-structured interviews were conducted with multidisciplinary team professionals, which works in the inpatient units of a tertiary-level hospital in southern Brazil, on preparation for hospital discharge and transition of care. Respondents were asked about the items they considered essential to compose a checklist for the transition of care at hospital discharge. The interviews were recorded and transcribed, and data analysis was performed using thematic analysis.⁽¹⁷⁾

The elaboration stage took place between May 2020 and March 2021.

Before starting the first validity round with an expert committee, the form for data collection was pilot tested. The form (Google Forms) was sent by email, containing questions about the profile of participants, chunks with items about patients and the necessary care both for hospital discharge and for continuity of care after discharge. Professionals who worked on the discharge management team of a tertiary hospital in southern Brazil were selected for convenience. They assessed the scope and rep-

resentativeness of items as well as the appropriateness of questions and the feasibility of the electronic form for data collection. Three professionals (a nurse, a social worker and a physician) participated in the pilot test.

No comprehension difficulties were pointed out, nor were suggestions made about the instrument's layout; the electronic form was maintained for data collection. Of the 18 assessed chunks, only two did not obtain an agreement rate > 90%. These chunks were adjusted according to the three professionals' suggestions.

After the pilot test, the checklist content validity stage followed (between May and June 2021) guided by the Delphi technique.⁽¹⁸⁾ For the assessments, 20 experts from different professional categories were selected to ensure an adequate sample. In the Delphi technique, there is no defined amount, as success is related to participants qualification.⁽¹⁸⁾ The sample was selected for convenience, including national professionals identified in publications (after analysis of resumes) or professionals who worked with transition of care. Professionals with publications on the subject of the study or who performed transition of care activities or planning and organizing hospital discharges in their daily work were included. There was no exclusion criteria.

The invitation to experts was made via email. Those who agreed to participate in validity received a link to access the electronic form (Google Forms). By clicking on the link, participants were directed to a session with the Informed Consent Form (ICF), and the agreement or not to participate in the study was an essential condition to open the following pages of the questionnaire.

The first round consisted of judging all items that make up the checklist, determining its scope and representativeness. The expert committee had ten days to respond to the form, agreeing or not with the items and making suggestions. At the end of the first round of assessment, the rate of agreement among judges (90%) was verified, and it was considered acceptable.⁽¹⁹⁾ Items that did not obtain an acceptable agreement rate in the first round were reassessed and adjusted before proceeding to the second round.

In the second round, the same expert committee was invited to judge the items and determine their clarity and representativeness. The Content Validity Index (CVI) was calculated, which measures the rate of judges in agreement on certain aspects of the instrument and its items. This instrument uses a Likert-type scale (four ordinal points), which assesses the subject's level of agreement by responses ranging from 1 (not clear) to 4 (very clear) to assess clarity, and from 1 (not relevant or representative) to 4 (relevant or representative) to assess representativeness.⁽²⁰⁾ Suggestions could also be made by experts. The acceptable agreement rate was $CVI > 0.785$.⁽²⁰⁾

All ethical and legal precepts regarding research with human beings were fully complied with. The research was approved by the Research Ethics Committees (REC) of the *Universidade Federal de Ciências da Saúde de Porto Alegre* (UFCSPA), receiving Certificate of Presentation for Ethical Consideration (CAAE (*Certificado de Apresentação de Apreciação Ética*): 37228320.0.0000.5345; Opinion: 4,499,025; 01/14/2021) and *Grupo Hospitalar Conceição* (GHC; CAAE: 37228320.0.3001.5530; Opinion: 4,540,922; 02/15/2021).

Results

In the checklist elaboration stage, eight multidisciplinary team professionals participated in the interviews, at least one from each professional category (two social workers, two nurses, a physician, a speech therapist, a nutritionist and a pharmacist). The mean age among them was 39 years. Only one respondent was male. At the time of the research, all participants worked exclusively in inpatient units in the hospital area. Their training time ranged between 10 and 29 years. After analyzing the interviews, essential items were identified to compose the checklist: care related to hygiene and comfort, exercise, food and dressing, social support, place of residence and identification of support from the care network for continuity of care after discharge. Based on these data, the integrative review on tran-

sition of care at hospital discharge of adult patients and the reading of articles on the use of checklist for hospital discharge, the first version of the checklist was prepared. Then, the validity steps were started. In the first stage of content validity, 12 experts returned the questionnaire, all of them with experience in transition of care activities. In addition to this, they worked mainly in hospitalization, management and Home Care Services (HCS). Some of them worked in concurrent activities, such as management and research. The other characteristics of experts' profile are described in Table 1. Regarding the instrument's overall scope and relevance (or representativeness), the mean agreement rate was 94% and 91%, respectively. Items that did not obtain an agreement rate $> 90\%$ were reviewed and adjusted according to experts' suggestions (Chart 1).

Then, the new version of the checklist was sent to the 20 experts in the initial sample for a second round of assessment. Ten experts returned the questionnaire. Most of them worked in hospital management and hospitalization activities; 50% of them worked in concurrent activities (e.g., hospitalization, researcher, management and HCS). The profile characteristics of the professionals who participated in the second round of validity are in Table 1.

As for instrument clarity and relevance (or representativeness), the means of calculating the CVI for clarity and relevance were 95% and 96%, respectively. In all assessed items, an agreement rate $\geq 80\%$ was obtained. Thus, the items that make up the checklist were considered validated by an expert committee (Chart 2).

The final version of the checklist has 17 items that help organize hospital discharge for adults and older adults (Appendix A).

Discussion

The construction and validity of a checklist for hospital discharge of adults and older adults is fundamental, as it concentrates the necessary requirements for the organization of discharge and safe transition of care. The importance of structuring

Chart 1. Agreement rates for scope (Sco) and relevance (Rel), with experts' suggestions in the first round of content validity

Items assessed for	Sco (%)	Rel (%)	Suggestions
Title: "CHECKLIST FOR QUALIFIED DISCHARGE"	83	83	Specify that discharge is "hospital discharge"
Checklist initial guidelines	83	92	Improve the wording and clarify that the checklist can be completed during hospitalization.
IDENTIFICATION	83	92	Swap bed number for ID.
SOCIAL SUPPORT	100	100	Replace "family car" with "own transport" and add the item "other"; add caregiver's age; confirm that patient has a link with the health unit.
CARE/GUIDELINES FOR PATIENTS AND FAMILIES ABOUT			
USE OF OXYGEN (O2) AT HOME	100	83	No suggestion
TRACHEOSTOMY (TCT)	100	92	Add if patient has a TCT withdrawal plan after discharge.
NUTRITION/DIET	92	92	Delete "TPN" and replace "state" with "RS State Department of Health".
DIALYSIS	100	92	Replace "family car" with "own transport" and add the item "other"; change that the social worker "guided" the flow of transport request for hemodialysis.
URINARY ELIMINATIONS	100	100	Make the text more succinct.
INTESTINAL ELIMINATIONS	100	100	No suggestion
DRESSINGS	100	100	Add the item "whether you have been instructed on where to pick up materials for dressing".
MEDICATIONS	92	92	In the guidelines on use: replace "morphine" with "opioids" and add "antimicrobial". Add guidelines on route, dosage and acquisition of special medications.
DEGREES OF PATIENT DEPENDENCY	92	75	Replace the Katz table with more succinct items.
FINAL GUIDELINES	92	83	Add the items about referrals made by the social worker, "participation in smoking groups", "tuberculosis treatment", "signs and symptoms of infections" and the item asking if patient has doubts about the given guidelines.
POST-DISCHARGE REFERRALS TO			
PRIMARY HEALTH CARE (PHC)	83	92	Add item on "patient supervision" due to its low compliance with treatment.
HOME CARE SERVICE (HCS)	100	92	Modify the wording of item "HCS team contacted the assisting medical team".
OUTPATIENT	100	100	No suggestion
GUIDELINES FOR HEALTH NETWORK PROFESSIONALS	83	83	Combine the first two items, as they speak of social support for patient; replace "morphine" with "opioids" and add "antimicrobial"; add the item on "referral of transport for hemodialysis".
Mean agreement rate	94	91	

Table 1. Profile of professionals who participated in the first and second rounds of validity

Professional categories	1 st round n(%)	2 nd round n(%)
Physician	4(33)	1(10)
Nurse	3(25)	5(50)
Social worker	2(17)	2(20)
Pharmaceutical	1(8)	1(10)
Physical therapist	2(17)	1(10)
Time passed after graduation (year)		
1-5	1(8,3)	0(0)
6-10	4(33,3)	3(30)
11-15	2(17)	3(30)
16-20	1(8)	1(10)
> 20	4(33,3)	3(30)
Training levels		
Specialization	4(33,3)	3(30)
Master's degree	4(33,3)	3(30)
Doctorate degree	3(25)	3(30)
Postdoctoral degree	1(8,3)	1(10)
Performance field		
Hospital admission	7	4
Health Services Management	5	6
Primary Health Care	2	0
Home Care Service	5	2
Permanent education/professor/preceptor	3	2
Researcher	2	3
Time working with transition of care activities (years)		
1-5	2(17)	3(30)
6-10	7(58)	5(50)
11-15	3(25)	2(20)
Publications on transition of care		
Yes	5(42)	4(40)
No	7(58)	6(60)

Chart 2. Content Validity Index (CVI) for clarity and relevance in the second round of content validity

Checklist items assessed for:	Clarity	Relevance
Title change: "CHECKLIST FOR HOSPITAL DISCHARGE"	1.00	1.00
Initial guidelines	0.90	1.00
IDENTIFICATION	1.00	1.00
SOCIAL SUPPORT	1.00	1.00
CARE/GUIDELINES FOR PATIENTS AND FAMILIES ABOUT		
USE OF OXYGEN (O2) AT HOME	1.00	1.00
TRACHEOSTOMY	1.00	1.00
NUTRITION/DIET	1.00	1.00
DIALYSIS	1.00	1.00
URINARY ELIMINATIONS	1.00	1.00
INTESTINAL ELIMINATIONS	0.90	0.90
DRESSINGS	1.00	0.90
MEDICATIONS	0.90	0.90
LEVEL OF DEPENDENCY	0.80	0.90
OTHER GUIDELINES	0.90	0.90
POST-DISCHARGE REFERRALS		
PRIMARY HEALTH CARE (PHC)	1.00	0.90
HOME CARE SERVICE (HCS)	0.90	1.00
OUTPATIENT	0.90	0.90
GUIDELINES FOR HEALTH NETWORK PROFESSIONALS	0.90	0.90
CVI calculation means	0.95	0.96

this process is justified by the vulnerability of older adult patients and/or patients with multiple comorbidities at the time of transition of care.^(8,21) They demand continuous assistance from several professionals in multiple services for injury control and prevention.^(21,22)

Evidence indicates that there is little information about efficient, effective and safe transitions of care for users and caregivers/family members, especially in hospital discharge planning for home, causing fragmentation in post-discharge care.⁽²³⁾ Thus, the checklist is an important instrument to verify specific needs of patients, such as health conditions, cognitive capacity and social support.⁽²⁴⁾ Furthermore, its use qualifies assistance by standardizing conduct and reduces failures in the work process, thus increasing hospitalized patient safety.⁽²⁵⁾

Discharge planning should start when patients are admitted, to organize and adjust their needs until the time of hospital discharge.⁽¹⁸⁾ At the international level, the use of checklists from the day of admission has contributed to patients' daily education and multidisciplinary team organization and coordination,⁽¹²⁾ in addition to reducing potential adverse events associated with data transfer.⁽²⁶⁾

Thus, these instruments must undergo content validity processes to attest their reliability and make them safe to use in different services.⁽²⁷⁾ Using the Delphi technique in this study allowed including professionals with theoretical and practical knowledge on the subject. This study suggests that heterogeneity in a decision-making group can lead to better performance. So, the inclusion of health professionals, patients or patient representatives can increase the credibility and enrich the Delphi procedure results.⁽²⁸⁾

Through collective participation, it was possible to build an instrument together with the multidisciplinary team that works daily in the process of transition from care to hospital discharge. This can be positively reflected in the tool application, because professionals feel valued when collaborating in the elaboration of an instrument that will be used in their workplace. Regarding content validity, the choice of experts should reflect the full range of stakeholders in the study results, as it is possible to obtain different points of view on quality of care and enrich the method.⁽²⁸⁾

Thus, the mean degree of agreement for comprehensiveness and relevance at the end of assessment in the first round was above 90%; the CVI for

clarity and relevance remained above 80%, indicating agreement on the relevance of all tool items. It is inferred that there was a consensus among experts when judging the checklist validity, which effectively addresses the necessary requirements for a qualified discharge and a safe transition of care.

As for verification items, they favor the understanding of the care provided during hospitalization and those required after hospital discharge. Its verification can improve the understanding of users' demands in the hospital discharge process, allowing the team to have easy access to care that has already been provided and pending. When the validated checklist is compared to existing instruments, its differential is that it collaborates with the transition of post-discharge care, as it has exclusive items for transferring care to other RAS services. Moreover, the checklist favors the management of care within hospitals, making all team members co-responsible in the process.

Finally, the use of this type of instrument favors the planning of interventions, helping professionals to make decisions⁽²⁹⁾, facilitating communication between team members. Thus, it standardizes good practices in continuity of care⁽¹²⁾, favoring the provision of safe care.

As limitations of this study, we highlight the difficulty in making all guest judges to return within the established period and the fact that the checklist was not tested by multidisciplinary team professionals.

We suggest the development of protocols with recommendations for conduct that must be followed for a safe and qualified hospital discharge. In addition, such protocols can be elaborated according to the specific care of each pathology.

Conclusion

The checklist for hospital discharge of adults and older adults was considered validated by the expert committee, regarding its content. It concentrates the necessary requirements for the organization of hospital discharge, and can be used by care teams or hospital discharge management and adapted to each institution's reality.

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Collaborations

Gheno J, Lombardini AA, Araújo KC and Weis AH contributed to study design, data analysis and interpretation, article writing, relevant critical review of the intellectual content and approval of the final version to be published.

References

- Paniagua DV, Ribeiro MP, Correia AM, Cunha CR, Baixinho CL, Ferreira Ó. Project K: training for hospital-community safe transition. *Rev Bras Enferm.* 2018;71(Suppl 5):2264-71.
- Aued GK, Bernardino E, Lapierre J, Dallaire C. Liaison nurse activities at hospital discharge: a strategy for continuity of care. *Rev Lat Am Enfermagem.* 2019;27:e3162.
- Thoma JE, Waite MA. Experiences of nurse case managers within a central discharge planning role of collaboration between physicians, patients and other healthcare professionals: a sociocultural qualitative study. *J Clin Nurs.* 2018;27(5-6):1198-208.
- Hayajneh AA, Hweidi IM, Abu Dieh MW. Nurses' knowledge, perception and practice toward discharge planning in acute care settings: a systematic review. *Nurs Open.* 2020;7(5):1313-20. Review.
- Costa MF, Andrade SR, Soares CF, Pérez El, Tomás SC, Bernardino E. The continuity of hospital nursing care for Primary Health Care in Spain. *Rev Esc Enferm USP.* 2019;53:e03477.
- Aued GK, Bernardino E, Silva OB, Martins MM, Peres AM, Lima LS. Competências da enfermeira de ligação na alta hospitalar. *Rev Gaúcha Enferm.* 2021;42(Esp):e20200211.
- Ferreira BA, Gomes TJ, Baixinho CR, Ferreira ÓM. Transitional care to caregivers of dependent older people: an integrative literature review. *Rev Bras Enferm.* 2020;73(Suppl 3):e20200394.
- Oikonomou E, Chatburn E, Higham H, Murray J, Lawton R, Vincent C. Developing a measure to assess the quality of care transitions for older people. *BMC Health Serv Res.* 2019;19(1):505.
- Weber LA, Lima MA, Acosta AM, Marques GQ. Transição do cuidado do hospital para o domicílio: revisão integrativa. *Cogitare Enferm.* 2017;22(3):e47615. Review.
- Berg SM, Bittner EA. Disrupting deficiencies in data delivery and decision-making during daily ICU rounds [editorial]. *Crit Care Med.* 2019;47(3):478-9.
- Hall AJ, Toner NS, Bhatt PM. The introduction of a Neurosurgical Postoperative Checklist improved quality of care and patient safety. *Br J Neurosurg.* 2019;33(5):495-9.
- Kuusisto A, Joensuu A, Nevalainen M, Pakkanen T, Ranne P, Puustinen J. Standardizing key issues from hospital through an electronic multi-professional discharge checklist to ensure continuity of care. *Stud Health Technol Inform.* 2019;264:664-8.
- Drake K, McBride M, Bergin J, Vandeweerd H, Higgins A. Ensuring safe discharge with a standardized checklist and discharge pause. *Nursing.* 2017;47(8):65-8.
- Polit DF, Beck CT. Fundamentos de pesquisa em enfermagem: avaliação de evidências para a prática da enfermagem. 7a ed. Porto Alegre (RS): Artmed; 2011. 670 p.
- Gheno J, Weis AH. Care transition in hospital discharge for adult patients: integrative literature review. *Texto Contexto Enferm.* 2021;30:e20210030. Review.
- Coffey A, Leahy-Warren P, Savage E, Hegarty J, Cornally N, Day MR, et al. Interventions to Promote Early Discharge and Avoid Inappropriate Hospital (Re)Admission: a systematic review. *Int J Environ Res Public Health.* 2019;16(14):2457. Review.
- Minayo MC. O desafio do conhecimento: pesquisa qualitativa em saúde. 14a ed. Brasil: Hucitec; 2014.
- Scarpato AF, Laus AM, Azevedo AL, Freitas MR, Gabriel CS, Chaves LD. Reflexões sobre o uso da técnica delphi em pesquisas em enfermagem. *Rev Rene.* 2012;13(1):242-51.
- Hulley SB, Cummings SR, Browner WS, Grady DG, Newman TB. Delineando a pesquisa clínica. 2a ed. Porto Alegre: Artmed; 2003. 394 p.
- Coluci MZ, Alexandre NM, Milani D. Construção de instrumentos de medida na área da saúde. *Ciência e Saúde Coletiva.* 2015;20(3):925-36.
- Li R, Geng J, Liu J, Wang G, Hesketh T. Effectiveness of integrating primary healthcare in aftercare for older patients after discharge from tertiary hospitals-a systematic review and meta-analysis. *Age Ageing.* 2022;51(6):afac151. Review.
- Acosta AM, Lima MA, Pinto IC, Weber LA. Transição do cuidado de pacientes com doenças crônicas na alta da emergência para o domicílio. *Rev Gaúcha Enferm.* 2020;41(Esp):e20190155.
- Lima MA, Magalhães AM, Oelke ND, Marques GQ, Lorenzini E, Weber LA, et al. Estratégias de transição de cuidados nos países latino-americanos: uma revisão integrativa. *Rev Gaúcha Enferm.* 2018;39:e20180119.
- Oliveira PR, Felix CS, Carvalho VC, Giovani AM, Reis RS, Beraldo M, et al. Outpatient parenteral antimicrobial therapy for orthopedic infections - a successful public healthcare experience in Brazil. *Braz J Infect Dis.* 2016;20(3):272-5.
- Maran E, Matsuda LM, Marcon SS, Haddad MC, Costa MA, Magalhães AM. Adaptation and validation of a Multidisciplinary Checklist for rounds in the Intensive Care Unit. *Texto Contexto Enferm.* 2022;31:e20210047.
- Yu M, Lee HY, Sherwood G, Kim E. Nurses' handoff and patient safety culture in perinatal care units: Nurses' handoff evaluation and perception of patient safety culture at delivery room and neonatal unit in South Korea. *J Clin Nurs.* 2018;27(7-8):e1442-50.
- Leite SS, Afio AC, Carvalho LV, Silva JM, Almeida PC, Pagliuca LM. Construction and validation of an Educational Content Validation Instrument in Health. *Rev Bras Enferm.* 2018;71(Suppl 4):1635-41.

28. Boukakedid R, Abdoul H, Loustau M, Sibony O, Alberti C. Using and reporting the Delphi method for selecting healthcare quality indicators: a systematic review. *PLoS One*. 2011;6(6):e20476. Review.

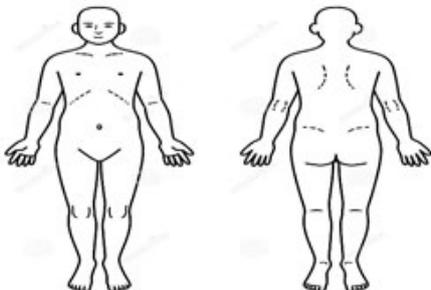
29. Saraiva CO, Andrade FB, Chiavone FB, Barbosa ML, Medeiros SG, Souza NL, et al. Neonatal patient safety assessment: construction and validation of a protocol and a checklist. *Acta Paul Enferm*. 2022;35:eAPE0085345.

Appendix A. Checklist for hospital discharge

DISCHARGE MANAGEMENT OFFICE (DMO)		CHECKLIST FOR HOSPITAL DISCHARGE	
Patient discharge planning should occur from the time of admission, and multidisciplinary rounds are the main moments for this organization. This checklist <u>must be completed during hospitalization</u> (at least 72 hours before discharge), and must be completed by the day of hospital discharge.			
<ul style="list-style-type: none"> • Check yes when care/guidelines, referrals and guidance to professionals in the care network are carried out. • Check no for options that are not necessary for transition of care. • Check NA when the option does <i>not apply</i> to patient. 			
LIST OF ACRONYMS			
NH: Nursing Homes BPC: Continuing Benefit Conveyance OC: oxygen cannula NC: nasal catheter CPAP: continuous positive airway pressure BiPAP: bilevel positive airway pressure		OR: oral route NET: nasogastric tube TPN: total parenteral nutrition UBC: urinary bladder catheter IUC: indwelling urinary catheter NA: not applicable	
IDENTIFICATION			DISCHARGE FORECAST: ___/___/___
Fill in the data or paste the label with patient information			
Full name:			
Record:	Date of birth: ___/___/___		
ID:	Date of admission: ___/___/___		
SOCIAL SUPPORT			
City where they live:			
Patient's guardian: _____ Guardian's age: _____ Kinship: () father/mother () partner () son(daughter) () brother(sister) () nephew(niece) () other _____ Contact telephone: _____ Email: _____			
Responsible for patient care and to receive guidelines: _____ () father/mother () partner () son(daughter) () brother(sister) () nephew(niece) () caregiver () other _____ Contact telephones: _____ Email: _____			
Before admission, patient lived: () alone () with partner () son(daughter) () brother(sister) () NH () other place _____			
Before admission, patient will live: () alone () with partner () son(daughter) () brother(sister) () NH () other place _____			
Type of housing: () house with single room () house with shared room () hostel () shelter () rented room with private bathroom () rented room with shared bathroom			
Patient/family income:			
Income comes from: () retirement () family allowance () pension () BPC () wage () others _____			
Do you follow up on your health problems? () YES () NO			Where?
Reference health unit/phone: Do you have an active bond with the unit? () YES () NO			
Will you need transportation on discharge day? () YES () NO () own transport/neighbor () hospital ambulance () municipal transport () other _____ Who should be contacted? Telephone: _____			
CARE/GUIDELINES FOR PATIENTS AND FAMILIES ABOUT:			
USE OF OXYGEN (O₂) AT HOME		() YES	() NO
Did the medical team send an assessment to the pulmonology team?		() YES	() NO
After pulmonology authorized the use of O ₂ , did family members forward the documentation for O ₂ installation in the municipality?		() YES	() NO
Did nursing or physical therapy guide the care with the use of O ₂ ? () ON: ___l/min. () NC: ___l/min. () CPAP: ___cmH ₂ O; ___l/min. () BiPAP: ___/___cmH ₂ O; ___l/min.		() YES	() NO
Oxygen installed at home; Date: ___/___/___		() YES	() NO
TRACHEOSTOMY (TCT) installed on: ___/___/___		() YES	() NO
Did nursing or physical therapy guide care with aspiration, cleaning, dressing and changing TCT laces? () portex () portex with endotube () metallic		() YES	() NO
Did family members purchase a portable vacuum cleaner? Were they instructed about handling?		() YES	() NO
Does patient have a plan to withdraw TCT after discharge?		() YES	() NO

Continue...

Continuation.

NUTRITION/DIET			
Nutrition through: <input type="checkbox"/> OR <input type="checkbox"/> NET <input type="checkbox"/> gastrostomy <input type="checkbox"/> jejunostomy			
Did the nutritionist advise on the diet that patient should follow?	<input type="checkbox"/> NA	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did the speech therapist advise on (1) care during feeding and (2) exercises that can be done after discharge?	<input type="checkbox"/> NA	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Diet by probe (Installed on: ___/___/___)	<input type="checkbox"/> NA	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did the nutritionist (1) provide guidance on the form of nutrition that patient should follow after discharge and (2) delivered the documentation for diet acquisition through RS/SDH?	<input type="checkbox"/> NA	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did nursing guide on probe care?	<input type="checkbox"/> NA	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did family members forward the documentation signed by a nutritionist and a physician to purchase special diets through RS/SDH?	<input type="checkbox"/> NA	<input type="checkbox"/> YES	<input type="checkbox"/> NO
DIALYSIS		<input type="checkbox"/> YES	<input type="checkbox"/> NO
<input type="checkbox"/> hemodialysis <input type="checkbox"/> peritoneal dialysis			
Did the social worker request a link with a hemodialysis clinic?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Will transportation be required for patient to the clinic?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did the social worker guide the flow to request transportation? And it will be carried out by: <input type="checkbox"/> own (or neighboring) transport <input type="checkbox"/> hospital ambulance <input type="checkbox"/> municipal transportation <input type="checkbox"/> other _____		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Were patient and family trained to perform peritoneal dialysis?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
URINARY ELIMINATIONS			
<input type="checkbox"/> spontaneous <input type="checkbox"/> incontinent; uses diapers			
<input type="checkbox"/> UBC (Frequency: _____) <input type="checkbox"/> IUC gauge _____ (Installed on: ___/___/___)			
<input type="checkbox"/> urostomy <input type="checkbox"/> nephrostomy <input type="checkbox"/> cystostomy (Installed on: ___/___/___)			
Did nursing (1) guide on care related to catheterization (UBC or IUC) or ostomy and (2) enable patient (or caregiver) to perform the procedure under your supervision?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did nursing guide you on (1) where to pick up (or purchase) the materials and (2) exchange the probe at the health unit?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
INTESTINAL ELIMINATIONS BY STOMA		<input type="checkbox"/> YES	<input type="checkbox"/> NO
<input type="checkbox"/> ileostomy <input type="checkbox"/> colostomy			
Did the stoma therapist guide you on ostomy care?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Bag withdrawal site: _____			
DRESSINGS		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Dressing site (check in the picture)	Type of injury:		
	Special coverage used for dressing:		
Did nursing guide you on (1) the precautions for dressing and (2) where to pick up or buy the materials?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
MEDICATIONS		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Guidelines on the use of medication(s): <input type="checkbox"/> insulin <input type="checkbox"/> anticoagulant <input type="checkbox"/> opioids <input type="checkbox"/> antimicrobial <input type="checkbox"/> others: _____			
Did the medical team or pharmacist advise on the use, adverse reactions and place of withdrawal (or purchase) of the medication(s) indicated above?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did the medical team or pharmacist guide you on the forms to acquire special medications?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
LEVEL OF DEPENDENCY			
Is patient totally dependent on assistance for basic care (bathing, eating, walking, dressing)?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Does patient need any assistance with basic care?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Does patient only need supervision for basic care?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Is patient independent?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
OTHER GUIDELINES			
Did the social worker advise patients' guardians on how to acquire diapers, a hospital bed, a wheelchair, a walker or a cane?	<input type="checkbox"/> NA	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did the social worker advise on referrals to (1) curatorship or (2) benefits for financial resources?	<input type="checkbox"/> NA	<input type="checkbox"/> YES	<input type="checkbox"/> NO

Continue...

Hospital discharge of adults and older adults: checklist elaboration and validity

Continuation.

Did nursing (1) provide guidance on hygiene and comfort care and (2) enable caregivers to participate in this care during hospitalization?	<input type="checkbox"/> NA	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did nursing or physical therapy advise on care to prevent falls and pressure injuries?	<input type="checkbox"/> NA	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did physical therapy advise on (1) exercises at home, (2) leaving the bed and (3) preventing falls?	<input type="checkbox"/> NA	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did the medical or nursing team advise on pharmacological and non-pharmacological methods for pain relief?	<input type="checkbox"/> NA	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did the medical or nursing staff encourage patient to participate in a smoking group?	<input type="checkbox"/> NA	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did the medical or nursing team advise on the importance of correctly following and completing the treatment against tuberculosis?	<input type="checkbox"/> NA	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did the medical or nursing staff advise on signs and symptoms related to infections?	<input type="checkbox"/> NA	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did the medical team advise patient guardians that, in an emergency, they should return to the hospital emergency room?	<input type="checkbox"/> NA	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did the medical or nursing staff ask patient and their guardians if they understood the guidelines provided by the team? If the answer is no, which guidelines were in doubt?	<input type="checkbox"/> NA	<input type="checkbox"/> YES	<input type="checkbox"/> NO
POST-DISCHARGE REFERRALS			
TYPE OF SERVICE			
PRIMARY HEALTH CARE (PHC)		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Appointment: date: __/__/__; hour: __:__; professional:		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Reason for appointment:			
Home visit scheduled for: __/__/__		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Reason for home visit:			
Patient supervision due to poor compliance with medication treatment		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Rehabilitation <input type="checkbox"/> physical therapy <input type="checkbox"/> speech therapy		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did discharge management (1) inform the PHC reference team about the need for rehabilitation and (2) guide patient guardians to attend the health unit to deliver the referral document?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
HOME CARE SERVICE (HCS)		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did the medical team refer you to the HCS for assessment?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Reason for needing follow-up by HCS:			
Was there articulation between the HCS team and the assistant medical team regarding patient discharge?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Patient accepted for follow-up by HCS?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
OUTPATIENT		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Patient has an outpatient relationship with _____		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Discharge management: scheduled appointment: date: __/__/__; hour: __:__; professional:		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did discharge management inform the PHC reference team about the need for outpatient referral to a specialty? _____		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did you guide patient guardians to attend the health unit to deliver the referral document to the specialty?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
GUIDELINES FOR HEALTH NETWORK PROFESSIONALS			
Was (1) patient's social support and (2) the family network for care informed?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Patient in need of home O2 use for: () ON: __l/min. () NC : __l/min. () CPAP: __cmH2O / __l/min. () BiPAP: __/ __cmH2O / __l/min.		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Patient with TCT installed on __/__/__ () portex () portex with endotube () metallic		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Patient's nutrition is by: () OR () NET () gastrostomy () jejunostomy Tube date: __/__/__		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Was documentation signed by a nutritionist and a physician for the acquisition of special diets through RS/SDH given to family members?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Patient in need of: () hemodialysis () peritoneal dialysis		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Urinary elimination is: () spontaneous () incontinent, in diapers () UBC (Frequency:) () IUC gauge ____ (Installed in: __/__/__) () urostomy () nephrostomy () cystostomy (Installed in: __/__/__)		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Intestinal elimination is by: () ileostomy () colostomy Date __/__/__		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Were they instructed on where the ostomy bags can be removed?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Patient in need of care with dressings. Were you informed about (1) location, (2) type of injury and (3) special coverage used to perform the dressing?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Patient uses medication and needs supervision with: () insulin () opioids () anticoagulant () antimicrobial () other: _____		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did you inform about (1) level of dependency, (2) hygiene and comfort care, (3) prevention of falls and pressure injuries, (4) exercises at home and (5) leaving the bed?		<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did you inform about the need for transport referral for hemodialysis?		<input type="checkbox"/> YES	<input type="checkbox"/> NO

Continue...

Continuation.

Did you inform that patient mentioned interest in participating in a smoking group?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Did you inform that patient is being treated for tuberculosis and needs supervision? In the case of treatment with a special scheme, were patient and family members instructed on where to collect the medications?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
Observations		
Professional in charge (signature and stamp)		