Medical Research Archives

European Society of Medicine

OPEN ACCESS

Published: October 31, 2023

Citation: Tappen, R. et al. 2023. Nursing Home Use of a Resident and Family Decision Guide to Reduce Hospital Readmissions: A Quality Improvement Project. Medical Research Archives, [online] 11(10). https://doi.org/10.18103/mra.v11i10.4525

DOI: https://doi.org/10.18103/mra.v11i10.4525

ISSN: 2375-1924

RESEARCH ARTICLE

Nursing Home Use of a Resident and Family Decision Guide to Reduce Hospital Readmissions: A Quality Improvement Project

Ruth M. Tappen[1*], David Wolf[2], Karen Southard[3], Sarah Worch[2], Janet Sopcheck[4]

1 Christine E. Lynn College of Nursing, Florida Atlantic University, 777 Glades Road NU-84, Boca Raton, FL 33431, USA
2 Lynn University, 3601 N Military Trl, Boca Raton, FL 33431, U.S.A
3 Health Quality Innovators (HQI), 9830 Mayland Dr D, Richmond, VA 23233, U.S.A
4 Independent Nursing Consultant

* rtappen@health.fau.edu

ABSTRACT

This article presents a quality improvement project involving the first organizational-level test of the effectiveness of a new U.S. Centers for Medicare and Medicaid Services endorsed Decision Guide, Go to the Hospital or Stay Here? A Decision Guide for Residents, Families, Friends, and Caregivers. This Decision Guide can enhance resident and family knowledge about nursing home capabilities and is intended to reduce nursing home resident and family insistence on potentially unnecessary resident transfers and hospital readmissions.

The SQUIRE 2.0 guidelines were the framework for this project. A quality improvement project was conducted in 16 nursing homes in the southeastern United States to evaluate the effect of the resident and family Decision Guide on hospital readmission rates. Prior to implementation, the investigators provided an online orientation to the project followed by onsite training of nursing home personnel. The nursing homes then distributed and reviewed the Guide with residents and their family members. Nursing home staff entered data related to readmissions and resident and family responses to the Guide into a secure portion of the project website. Nursing home staff recorded data for three months before Guide implementation and for three months after Guide distribution. Three of the nursing homes lost their upper management team soon after study initiation and were unable to continue. A fourth did not provide complete data. In the 12 remaining facilities, the three-month mean number of readmissions dropped from 27 pre-intervention to 18.58, a 31.2% decrease. Participating facilities reported the Guide were very well received by residents and their families. The facilities' personnel reported that most residents and family members were unaware of the scope of services provided by the nursing home, an information gap filled by the Decision Guide. They found that implementing this Guide in nursing homes was cost-effective, easy to use, and could substantially reduce readmissions. The results of this quality improvement project demonstrated a significant decrease in hospital readmission rates, underscoring its potential for quality improvement in nursing home care and avoidance of burdensome hospital transfers.

Introduction

Research results indicating that approximately one-quarter of nursing home residents admitted from acute care are re-hospitalized within a month at an estimated cost of $4.3 billion annually in the United States[1,2] spurred the Centers for Medicare and Medicaid Services to take several actions[3]. To address this issue, section 3025 of the Affordable Care Act directed the Secretary of the Department of Health and Human Services to establish the Hospital Readmission Reduction Program. This Medicare value-based purchasing program lowers payments to hospitals with excess readmissions.[4] Section 215 of the Protecting Access to Medicare Act of 2014 also required the Secretary to establish a Skilled Nursing Facility Value-Based Purchasing program.[5] Commencing in October 2018, nursing homes with high readmission rates are also penalized, with the Centers for Medicare and Medicaid Services withholding up to two percent of Medicare reimbursements and redirecting some of those funds to higher-performing facilities. All skilled nursing facilities that accept Medicare residents are included in this program.[6,7]

Research has suggested that up to 60% of these rehospitalizations are potentially avoidable.[8] Popejoy and colleagues,[9] for example, found that 54% of nursing home-to-hospital transfers were potentially avoidable. In an analysis of Minimum Data Set data on residents with advanced illnesses, McCarty et al. (2019)[10] found that the number of potentially avoidable hospital transfers per year was higher in 2011 than in 2016. They suggested however that there remain many opportunities for further research. Several programs have been developed to assist skilled nursing facilities in addressing these potentially avoidable readmissions. For example, INTERACT™ (Interventions to Reduce Acute Care Transfers) is a quality improvement program designed to improve the identification, evaluation, and communication of changes in resident status (https://pathway-interact.com). INTERACT™ uses four sets of tools to support efforts to reduce hospital readmissions: Quality Improvement, Communications, Decision Support, and Advance Care Planning.[11] The Centers for Medicare and Medicaid Services-supported Initiative to Reduce Avoidable Hospitalizations Among Nursing Facility Residents involved seven projects and 143 nursing homes that were expected to add registered nurses and/or advanced practice nurses to provide clinical care or education, use INTERACT™ tools, address advanced care planning, medication management, and similar care issues related to reducing avoidable hospitalizations. While four of the seven projects reported cost savings, this was statistically significant in only one project. Consistent, hands-on clinical care, not just intermittent involvement, strengthened the intervention[3]. In the Missouri Quality Initiative, for example employment of advanced practice nurses embedded in 16 participating nursing homes along with the use of INTERACT™ tools (Stop and Watch and SBAR) and a project-developed Root Cause Analysis tool was found to reduce readmission rates by 30% over four quarters.[12] Notably, of the 650 hospital transfers that were evaluated during this project, 111 (17%) were due to resident and family insistence,[13] a previously neglected factor contributing to these preventable readmissions that occur relatively frequently.[14] To address this heretofore neglected aspect of avoidable hospitalizations, we adopted a person-centered research approach[15,16] beginning with a series of 271 in-depth interviews with 96 nursing home residents, 75 families, and 100 staff and providers from 18 nursing homes in South Florida. Based upon the interview results, an interdisciplinary team created an evidence-based decision aid, Go to the Hospital or Stay Here? - A Decision Guide for Residents, Families, Friends, and Caregivers (the Guide) and a condensed Trifold version.

This Decision Guide contains information on the risks and benefits of transfer to acute care, resident, and family rights to participate in the transfer decision, a decision tree outlining the factors to consider in making this decision, Frequently Asked Questions, quotes from nursing home residents, families, staff and providers and an introduction to advance care planning. Available in six languages, the Decision Guide, smaller Trifold, and related training materials may be found on the Guide website, http://www.decisionguide.org/ A small pilot study of residents' and family members' responses to the Guide done before this current study indicated a high level of Guide use on the part of the residents and their families.[17] This current study, the first organization-level test of the Guide and Trifold, was conducted in 16 nursing homes in eight southeastern U.S. states.

Implementation of this Centers for Medicare and Medicaid Services-endorsed Decision Guide and its effect on readmission rates in nursing homes, thereby improving the quality of care delivered to residents by avoiding the risks of transfers and potential health complications to the residents are discussed.[18]

In summary, quality improvement efforts in nursing homes, such as a resident-family-oriented Decision Guide to reduce unnecessary hospital readmissions, are critical both to cost containment and the quality of care provided to the residents. This Decision Guide arose from in-depth interviews with nursing home residents, families, staff members, and providers that sought to understand the reasons for resident transfers to the hospital to reduce readmission rates in nursing homes. This paper describes a quality initiative to assess the effectiveness of this Centers for Medicare and Medicaid Services-endorsed Decision Guide in 16 Medicare-certified nursing homes in the southeastern United States.

Methods

DESIGN

This project used a mixed-methods parallel design to evaluate the implementation of the Decision Guide in 16 nursing homes. Both quantitative and qualitative data are collected in this type of research design.[21,22] Morse[23] wrote that a mixed method approach allows the research team to collect "different but complementary data" on the same topic.

This quality improvement initiative involved onsite training, distribution of the Guide and Trifold to residents and families, and data collection on readmission rates three months before and after Guide distribution. The facilities provided quantitative data on hospital readmissions and qualitative data on their experience using the Guide. Facilities acted as their own comparison group in this test of the effect of the Guide on all-cause hospital readmissions, comparing the 90-day readmissions rate per 1000 resident days prior to implementation of the Guide/Trifold to the 90-day readmissions rate per 1000 resident days three months after implementation and obtaining qualitative descriptions of the facilities' experience using the Guide.

The research/project team collected qualitative feedback to gain insight into the implementation process and response to the Decision Guide, including resident, family, and staff evaluations of the Guide.

This study was reviewed by the University's Institutional Review Board and designated a Quality Improvement Study with waiver of individual consent. This Project was conducted in accordance with the SQUIRE guidelines for quality improvement studies.[19,20]

SAMPLE

Sixteen Medicare-certified nursing homes were identified by state agency advisors to the project and invited to participate. Criteria for selection were designed to achieve a demographically diverse sample of nursing homes including facilities with less than 100 beds and those with 101 beds or more; rural, suburban, and urban nursing homes; profit, not-for-profit, and government-owned facilities.

APPROACH

Representatives from each of these nursing homes participated in an online hour-long project orientation webinar. Expectations of participating facilities were outlined:

1. Complete a baseline online survey of facility characteristics and report hospital readmissions that occurred in the 3 months before introducing the Guide/Trifold.

2. Prepare facility management and staff to deploy the Guide/Trifold.

3. Rollout Guide/Trifold use in the facility.

4. Report hospital readmissions that occurred in the first three months of Guide or Trifold use and facility experiences implementing the Guide on the project website through a secure portal.

Sufficient Guides and Trifolds for every resident plus family members, training videos on a compact disc, and a planning document were sent to each facility a week before the onsite visits were made by project leadership. During these visits, the purpose of the project and responsibilities of the facility were reiterated, materials reviewed, questions answered, and a plan for rollout discussed.

Table 1. Go to the Hospital or Stay Here: Training Agenda for Enrolled Nursing Homes

Introduction of Trainers and Participants
Expectations for this training
Brief History of Guide
Review of Decision Guide Content
Understanding the Readmissions Issue: Getting Everyone on the Same Page
Why are we here? Discussion of this project: 1. Components of the project 2. Timeline 3. Participation from the facilities
Review of the Planning Document • Who, what, why, when, where, and how to use it • How can we help you use it in YOUR facility?
Review of the Baseline and Final Report Data Input Forms
Decision Guide Website
Training Package Resources
Speaking with Residents/Families: Using the Guide in your facility (videos)
Questions/Issues

While guidance regarding the rollout plan was offered to each of the facilities, they were free to create their own rollout plan based on their own best practices, operational strengths, and limitations within their facility. The Guide, the smaller Trifold version, training materials, and suggestions for implementation may be found on the Guide website, http://www.decisionguide.org/.

DATA COLLECTION

Salient characteristics of participating facilities including location, type of ownership, bed size, proportions of long and short-stay residents, tenure of the administrator, director of nursing, and medical director, RN hours per resident per day, and nurse practitioner days per week onsite were obtained through an online baseline survey. Each facility reported the number of hospital readmissions 90 days before the Guide's implementation in their baseline report and 90 days after introducing the Guide/Trifold, in their final report. Project members also called each facility to obtain qualitative reports of their use of the Guide, how they thought their use impacted hospital readmissions, and the responses of residents and families to the Guide and Trifold. Readmission numbers were entered on a secure portion of the project's website by the facilities. Data were then downloaded into a Microsoft Excel V. 2019 database and converted to IBM SPSS Statistics V.28 2021 and SAS version 9.4 (SAS Institute Inc., Cary, NC, 2020) for analysis. The follow-up calls to the participating facilities at the midpoint and end of the 3-month implementation period by project team members were entered into an Excel database for analysis.

DATA ANALYSIS

The quantitative analysis employed analysis of variance (ANOVA) for continuous data and chi-square or Fisher's exact test for categorical data when cell frequencies were under 5, to compare study completers and non-completers. To assess the effect on hospital readmissions, pre-implementation rates were compared to 90-day post-implementation rates using a paired sample t-test. In accordance with the Nursing Home Compare Claims-Based Quality Measure Technical Specifications 2018 https://www.cms.gov/newsroom/press-releases/cms-adds-new-quality-measures-nursing-home-compare[24], readmission rates were calculated per 1000 resident days. The 90-day readmission rate was calculated with the numerator equaling the total number of readmissions during the 90-day pre or post-implementation period and the denominator equaling the average daily resident census multiplied by 90 days and divided by 1000 resident days: readmissions ((Average Daily Resident Census *90/1000)). The pre-implementation and post-implementation readmission rates were then compared using a paired sample t-test. The qualitative data were read in an iterative manner by project team members to categorize responses by topic and identify exemplars that best represented the facilities' reports.

Results

FACILITY CHARACTERISTICS

All participating facilities were Medicare and Medicaid certified. Seven were in a rural area, four in an urban area, and five in a suburban area. Ten were for-profit, four were not-for-profit, and two were government-owned. Bed size ranged from 38 to 259 (mean 116). The average

tenure of the Administrator was 9.74 years (SD 10.38) ranging from 5-30 years. The average tenure of the Director of Nursing was 2.2 years (SD 2.87) ranging from 1-8 years. The Medical Directors' average tenure was 17 years (SD 6.94) range of 8-32 years. The average nurse practitioner days per week was .70 (SD 1.4) with a range of 0-4.5 days per week.

FACILITY ATTRITION

Of the 16 facilities selected and enrolled, three lost their administrative team within weeks of project commencement and withdrew. A fourth facility did not complete data input and was dropped from the analysis. There were no significant differences in the characteristics of the 12 facilities that completed the project and the four that did not.

Table 2. Comparison of NH Facilities: Completers vs non-completers

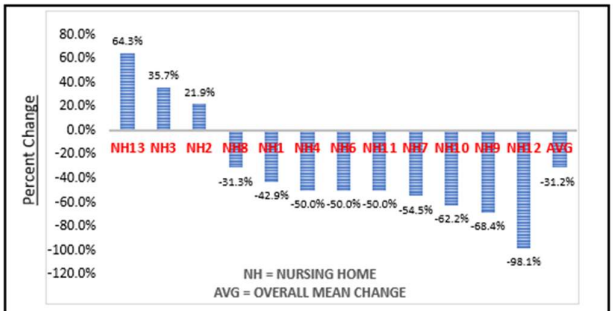
Continuous Variables	Completed Study		Did Not Complete			
	M	SD	M	SD	F	P
Number of Beds	120.33	57.37	105.00	37.42	.24	.62
Tenure of Administrator	10.4	10.85	8.25	10.96	.05	.83
Tenure of Director Nursing	2.61	3.01	.30	.28	1.09	.32
Medical Director Hours	16.22	5.33	22.00	14.14	1.15	.31
RN Hours Per Resident per Day	1539.22	762.17	951.27	550.70	1.99	.18
Nurse Practitioner Days Per Week	.85	1.59	0.00	0.00	.52	.48
Categorical Variables	**Completed Study**		**Did Not Complete**		**chsq**	**P**
	Yes	No	Yes	No		
For Profit	7	5	2	2	.04	.77
Rural	6	6	1	3	.76	.38

NUMBER OF ACUTE CARE (HOSPITAL) TRANSFERS

Altogether, 12 nursing homes reported their pre- and post-project implementation 90-day readmission rates. Comparing the pre- and post-implementation rates using a paired sample t-test, there was a statistically significant decrease in the 1000 resident days readmission rate from a mean of 3.15 at pre-implementation to a mean of 1.92 (SD 1.675) 90 days post-implementation, a medium effect size [t(12)=1.936,p=.040,d=.56]

The overall change in readmission rates represents a 31.2% decrease after the implementation of the Decision Guide.

Figure 1. Percent Change in Readmissions: 90-Day Implementation Period Compared to 90 Days Prior to Implementation



Nursing Home	3 Months Prior	Project Period 3 months	Per Cent Change
NH1	14	8	-42.9%
NH2	32	39	21.9%
NH3	42	57	35.7%
NH4	12	6	-50.0%
NH6	12	6	-50.0%
NH7	11	5	-54.5%
NH8	32	22	-31.2%
NH9	38	12	-68.4%
NH10	37	14	-62.2%
NH11	14	7	-50.0%
NH12	52	1	-98.1%
NH13	28	46	64.3%
Mean	27	18.58	-31.2%

The three nursing homes that experienced an increase in readmissions were asked if they knew why that occurred. One replied that the increase was a part of the usual fluctuation in admissions they experience over time. A second facility administrator described a series of readmissions of the same resident (reflected in their post-implementation data) who called the 911 emergency number two or three times a day complaining of abdominal pain and requesting transfer to the hospital. The third nursing home reported they were unaware that readmissions had increased and did not know why it had occurred.

FACILITY REPORTED EXPERIENCE USING THE GUIDE/TRIFOLD.

Initial Distribution of the Guide/Trifold varied across the facilities. While it was not possible to ensure every resident or their family read the Guide or Trifold, the most common approach taken was to provide residents the Guide on admission and mail the smaller Trifold to family members with the monthly invoice. For example, one facility reported:

The Decision Guide is given to new admissions and the Trifold was sent to the families at the end of the month with the billing statement and an explanatory letter.

Several described how they integrated the Guide into existing systems for providing information to their residents. The facilities reported that the

Guide was relatively easy to integrate into existing operations and was not cost or training intensive. For example:

[Residents] have a discharge book that goes home with them which includes medical information, functional level, etc.; the Decision Guide is included in this.

Most facilities noted that residents may be overwhelmed by the amount of information received on admission and that some of the information in the Guide needed further explanation or discussion:

We follow up to discuss with the family at the 48-hour care plan meetings.

We do a 72-hour post-admission follow-up with the resident and family. This is a good time to review the Guide another time and answer any questions they might have.

All these facilities reported that the Guide and Trifold were well received by both residents and their families. Examples from the nursing homes:

It's been very helpful. Families have learned a lot they didn't know.

Very popular. Families were unsure initially but were very glad to know that the nursing home was not going to send residents to the hospital unless it was strictly necessary.

Residents were glad to know what can be done right here.

Finally, utilizing the secure website as well as follow-up telephone calls, the participating facilities were asked to comment on the effect of Guide implementation on hospital readmissions:

It will improve the re-hospitalization rate. Sometimes families insist but if they are comfortable that you are focusing on their family member's care then they are more comfortable with them staying in the facility.

Discussion

This study was the first organizational-level test of the effect of Guide and Trifold use on hospital readmissions in participating nursing homes. Ninety-day readmission rates per 1000 resident days dropped an average of 31.2% across the 12 facilities that completed the study, suggesting that the Guide was a useful addition to the nursing homes' readmission reduction efforts. Given that hospital readmissions of nursing home residents have significant financial and health consequences,[25] the results of the current study have considerable implications for future use as a component of efforts to reduce hospital readmissions among nursing home residents and to promote person-centered care in nursing homes.[26] Our qualitative findings are also worth noting, as reported responses to the Guide were generally positive. Specifically, most families and residents welcomed the information in the Guide and Trifold and indicated that they had not known many of the facts about the care nursing homes can provide, common terms related to end-of-life care, and their right to participate in decisions such as whether or not to be transferred to acute care. The relevance of the Decision Guide content is a likely result of the large number of interviews conducted prior to composing the Guide. Considered together, the quantitative and qualitative findings of this study suggest the Guide is potentially effective in reducing hospital readmission rates among nursing home residents and is a practical tool that is cost-effective and can be easily and successfully implemented by nursing home personnel. The Decision Guide's integration into existing operations and positive feedback from the nursing homes support its practicality as an effective quality improvement tool.

REFLECTIONS ON EXISTING EVIDENCE

Consistent with previous researchers, our study found that family insistence on transferring the resident to the hospital was an issue,[13] including repeat transfers that were potentially avoidable.[14] Because this Decision Guide originated from a person-centered research approach focused on resident and family perspectives[16] regarding their understanding and misunderstandings about resident transfers and nursing home care, it is unlike other clinically focused tools for staff use, such as the INTERACT Tools[11] and the newer Avoidable Transfer Tool developed to retrospectively identify factors influencing resident transfers and how to avoid them in the future.[27] Working with residents and family members is integral in reducing readmission rates. Providing them with the information in the Guide about what the nursing home can do may promote positive communications, and in turn, reduce readmissions.[28]

The Centers for Medicare and Medicaid Services value-based purchasing program incentivized nursing homes to reduce their readmissions. Burke et al.[2] found in the program's first year, 63.1% of skilled nursing facilities (n=1849) whose improvement score was used as their performance score for reimbursement received a financial penalty and only 20.2% received a bonus. Similarly, Daras et al.[29] reported that 26% in the first year (FY2019) and 19% of skilled nursing facilities in the second year of this Centers for Medicare and Medicaid Services program (FY2020) received incentive payments, whereas 72% and 65% respectively were penalized for their performance, receiving negative incentives. Much of the Guide's value lies in the focus on reducing resident transfers to hospitals and hospital readmissions.

Nursing home personnel interviewed in this study were fairly consistent in their opinions about preventable versus not preventable readmissions. However, Mendu and colleagues[30] found that skilled nursing facility providers judged more readmissions as unpreventable, at 79.7%, compared to hospital providers, at 58.6%. Having an objective evidence-based tool such as the Decision Guide, available can promote clarity about the care the nursing home can provide to residents and families compared to the hospital and may reduce readmissions.

High staff turnover rates mean nursing homes must frequently orient new staff, and staff inexperience could increase readmissions.[31-33] Gandhi et al.[34] examined national nurse turnover rates and reported mean turnover rates for registered nurses at 140.7%, licensed practical nurses at 114.1%, and certified nursing assistants at 129.1%. With high staff turnover rates in nursing homes,[32,34] it becomes even more important that this Decision Guide is easily implemented with minimal training for new nursing staff. A brief in-service training session can introduce new professional nurses to the Guide. Educational materials, including videos, are available for nursing home staff training at http://www.decisionguide.org/training.aspx.
With the cost of nursing home care increasing, an opportunity to decrease costs without compromising quality is welcomed.[32] This Guide is easy to integrate system-wide, evidence-based, and low-cost in a cost-conscious healthcare market and has the potential to increase the quality of care residents receive.

STRENGTHS

This study had several strengths. As nursing homes are frequently overburdened and under-resourced, the congruence between our implementation process and what many nursing homes already had as standard procedures was important.[17,35]This congruence in implementation processes meant that there was less change required by the nursing homes and therefore less potential burden related to Guide implementation. Thus, the use of the Guide enhanced what nursing homes were doing with residents and family members. The nursing homes did not require much technical support during the implementation phase as they understood the purpose of the Guide and readily proceeded with implementation. The Guide also provided an opportunity for them to refocus on reducing readmissions; several took advantage of this to launch a program centering on the Guide and the importance of reducing unnecessary hospital readmissions. There was also considerable variability in our sample relevant to the range in size of the facilities and their locations in both rural and urban areas. This heterogeneity was essential to demonstrating the efficacy of Guide dissemination in the broader sector of the 15,600 nursing homes nationwide.[36]

LIMITATIONS

There were multiple limitations to the current study as well. The generalizability of the results may not translate to other regions of the United States or internationally. The fact that the facilities were selected by state advisors likely increased cooperation from the nursing home administrators. Those nursing homes without a top management team were not able to complete the project, indicative of the importance of the administrator and leadership from the administrative team. Additionally, our follow-up did not extend beyond three months, thus the sustainability of these results and the potentially cyclical nature of readmissions remain untested. While most nursing homes experienced decreased readmission rates, three (19%) nursing homes experienced higher rates for various reasons. One nursing home reported no change in readmission rates, and another indicated that they had quite a bit of fluctuation in readmissions, that their rates differed quarter-to-quarter but did not elaborate as to the reasons for this fluctuation. One nursing home reported that a resident consistently called the 911 emergency number approximately 2 to 3 times

daily, and this resident was taken to the emergency department each time the resident called 911. This occurrence drastically elevated readmission rates for this nursing home. Accounting for such outliers would likely have produced a stronger positive result regarding the effectiveness of the Guide.

Although the pre- and post-implementation data demonstrated a positive reduction in readmissions, the Guide cannot be credited with the entirety of this reduction as it was evident that involvement in the project increased awareness of the importance of reduction in readmissions and stimulated staff efforts to reduce hospital readmissions. The nursing homes also identified that the information in the Guide was accurate, was well received by residents and caregivers, and considered it an effective addition to their readmission reduction strategy.

IMPLICATIONS FOR FURTHER RESEARCH

Future research should explore the Guide's effectiveness in diverse localities and evaluate its long-term sustainability. Evaluating the Guide's impact on resident and family well-being, engagement in care decisions, and end-of-life care preferences would provide valuable insights for further quality improvement efforts. Moreover, cost-benefit analyses and regional variations in implementation will contribute to optimizing the guide's use as a quality improvement strategy.

We noted there was not much discussion from the facilities' representatives about the leadership of Guide implementation. Because this is key to the success of operational implementation, future studies should more closely monitor how these individuals engage in the implementation process. As indicated earlier, future studies on the use of the Guide should also engage larger numbers of facilities nationwide, diverse facility and population demographics, and most importantly, include a longer follow-up period to evaluate the sustainability of Guide use and reduction in readmissions. Studies should investigate the Guide's effectiveness in preparing staff to discuss care decisions, including end-of-life care discussions.[37] A cost/benefit evaluation of Guide use should include the cost of staff training, staff time to distribute and discuss the Guide with residents and families, and the purchasing or duplicating of the Guide compared to the benefits of reduction in readmissions.

Resident and family responses to receiving the Guide or Trifold were reported by nursing home staff. Future studies should also evaluate the effect of Guide use on resident and family well-being and involvement in decision making. In particular, investigation of the effect of Guide use on preferences for and acceptance of end-of-life care options is warranted.

In summary, this quality improvement initiative demonstrated a significant 31.2% decrease in readmission rates (per 1000 resident days) post-implementation of the Centers for Medicare and Medicaid Services-endorsed Decision Guide. The study highlighted the guide's potential to foster person-centered care, resulting in improved communication, and decision-making, and reduced hospital readmissions. Qualitative feedback underscored the Guide's positive reception from residents and families, further affirming its value as a quality improvement tool.

Conclusion

This study demonstrated the acceptability and potential usefulness of the Decision Guide in reducing unnecessary hospital readmissions of nursing home residents. Reports from participating nursing homes indicated that residents and family members appreciated receiving the Guide and had been unaware of many of the services provided in the nursing home. Furthermore, most of the participating nursing homes experienced a substantial decrease in hospital readmissions.

Aligned with SQUIRE 2.0 reporting guidelines, this quality improvement initiative demonstrated the potential of the Centers for Medicare and Medicaid Services-endorsed Decision Guide to reduce unnecessary hospital readmissions and improve the quality of care. By prioritizing person-centered care and informed decision-making, nursing homes can substantially reduce their readmission rates, leading to better outcomes for their residents. The positive feedback from the participating nursing homes reinforces the guide's potential value as a practical and effective approach to quality improvement in nursing home care delivery.

References

1. Mor V, Intrator O, Feng Z, Grabowski DC. The revolving door of rehospitalization from skilled nursing facilities. Health Aff. 2010;29(1):57–64. doi/10.1377/hlthaff.2009.0629

2. Burke RE, Xu Y, Rose L. Skilled nursing facility performance and readmission rates under value-based purchasing. JAMA Netw Open. 2022;5(2):e220721doi:10.1001/jamanetworkopen.2022.0721

3. Gaines J. Evaluation of the Initiative to Reduce Avoidable Hospitalizations among Nursing Facility Residents: Final Report. Published 2017.

4. Centers for Medicare and Medicaid Services. Hospital readmissions reduction program. https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/Readmissions-Reduction-Program. Published August 15, 2023. Accessed on August 27, 2023.

5. Centers for Medicare and Medicaid Services. The Skilled Nursing Facility Value-Based Purchasing (SNF VBP) Program.

https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/SNF-VBP/SNF-VBP-Page. Published August 18, 2023. Accessed on August 27, 2023.

6. Centers for Medicare and Medicaid Services. Skilled Nursing Facility Value-Based Purchasing Program FY 2024 program year fact sheet

https://www.cms.gov/sites/default/files/2023-08/FY2024-SNF-VBP-Fact-Sheet.pdf. Published 2023. Accessed on August 27, 2023.

7. Rau J. Medicare cuts payments to nursing homes whose patients keep ending up in hospital. https://khn.org/news/medicare-cuts-payments-to-nursing-homes-whose-patients-keep-ending-up-in-hospital/ Published December 3, 2018. Accessed on August 27, 2023.

8. Spector WD, Limcangco R, Williams C, Rhodes W, Hurd D. Potentially avoidable hospitalizations for elderly long-stay residents in nursing homes. Med Care. 2013;51(8):673-681. doi:10.1097/MLR.0b013e3182984bff.

9. Popejoy LL, Vogelsmeier AA, Alexander GL, et al. Analyzing hospital transfers using INTERACT acute care transfer tools: Lessons from MOQI. J Am Geriatr Soc. 2019;67(9):1953-1959. doi:10.1111/jgs.15996.

10. McCarthy EP, Ogarek JA, Loomer L, et al. Hospital Transfer Rates Among US Nursing Home Residents With Advanced Illness Before and After Initiatives to Reduce Hospitalizations. JAMA Intern Med. 2020;180(3):385-394. doi:10.1001/jamainternmed.2019.6130

11. Pathway Health. INTERACT® Tools (2023) https://pathway-interact.com/. 2023.Accessed on August 27, 2023.

12. Rantz MJ, Popejoy L, Vogelsmeier A, et al. Successfully reducing hospitalizations of nursing home residents: Results of the Missouri quality initiative. J Am Med Dir Assoc.2017;18(11):960-966. doi:10.1016/j.jamda.2017.05.027.

13. Vogelsmeier A, Popejoy L, Kist S, Harrell R, Alexander G, Rantz M. Avoiding nursing home to hospital transfers: Rethinking avoidability. J Nurs Care Qual. 2019;34(3):189-193. doi:10.1097/NCQ.0000000000000409.

14. Vogelsmeier A, Popejoy L, Fritz E, Canada K, Ge B, Brandt L, Rantz M. Repeat hospital transfers among long stay nursing home residents: a mixed methods analysis of age, race, code status and clinical complexity. BMC Health Serv Res. 2022; 22(1):626. doi: 10.1186/s12913-022-08036-9.

15. McCormack B, McCance T. Person-Centred Practice in Nursing and Health Care: Theory and Practice. 2nd ed. Ames, IA:Wiley Blackwell, 2017.

16. Woo, SE, Jebb, AT, Tay L, Parrigon S. Putting the "person" in the center: Review and synthesis of person-centered approaches and methods in organizational science. Org.Res.Methods.2018;21(4):814–845. https://doi.org/10.1177/1094428117752467.

17. The Authors. Evaluation of a novel decision guide "Go to the hospital or stay here?" for nursing home residents and families: A randomized trial. Res Gerontol Nurs.

2020;13(6):309-319.doi:10.3928/19404921-20201002-01.

18. Lemoyne SE, Herbots HH, De Blick D, Remmen R, Monsieurs KG, Van Bogaert P. Appropriateness of transferring nursing home residents to emergency departments: a systematic review. BMC Geriatr. 2019;19(1):17. doi:10.1186/s12877-019-1028-z.

19. Ogrinc, G., Davies, L., Goodman, D., Batalden, P., Davidoff, F., & Stevens, D. (2016, March). SQUIRE 2.0: Standards for quality improvement reporting excellence: Revised publication guidelines from a detailed consensus process.https://journals.lww.com/journalacs/Citation/2016/03000/SQUIRE_2_0_Standards_for_Quality_Improvement.14.aspx. Published 2020. Accessed on August 28, 2023.

20. Squire. Revised standards for quality improvement reporting excellence SQUIRE 2.0. http://www.squire-statement.org/index.cfm?fuseaction=Page.ViewPage&PageID=471. Published 2020. Accessed on August 28, 2023.

21. Creswell J, Clark V. Designing and Conducting Mixed Methods Research. Los Angeles, CA: Sage Publications, 2018.

22. Tashakkori A, Teddlie C. Mixed Methodology: Combining Qualitative and Quantitative Approaches. vol..46. Thousand Oaks, CA: Sage Publications, 1998.

23. Morse JM. Approaches to qualitative-quantitative methodological triangulation. Nurs Res. 1991;40(2):120-123.

24. https://www.hhs.gov/guidance/document/nursing-home-compare-claims-based-quality-measure-technical-specifications

25. Kajdacsy-Balla Amaral AC, Hill AD, Pinto R, et al. The effects of acute care hospitalization on health and cost trajectories for nursing home residents: A matched cohort study. Medicine. 2022;101(41):e31021. doi:10.1097/MD.0000000000031021.

26. Bhattacharyya KK, Craft Morgan J, Burgess EO. Person-centered care in nursing homes: Potential of complementary and alternative Approaches and their challenges. J Appl Gerontol.2022;41(3):817-825. doi:10.1177/07334648211023661.

27. Carnahan JL, Unroe KT, Evans R, et al. The avoidable transfer scale: A new tool for identifying potentially avoidable hospital transfers of nursing home residents. Innov Aging. 2022;6(4):igac031. doi:10.1093/geroni/igac031.

28. Pulst A, Fassmer AM, Schmiemann G. Experiences and involvement of family members in transfer decisions from nursing home to hospital: A systematic review of qualitative research. BMC Geriatr. 2019;19(1):155. doi: 10.1186/s12877-019-1170-7.

29. Daras LC, Vadnais A, Pogue YZ, et al. Nearly one in five skilled nursing facilities awarded positive incentives under value-based purchasing. Health Aff. 2021;40(1):146-155. doi:10.1377/hlthaff.2019.01244.

30. Mendu ML, Michaelidis CI, Chu MC, et al. Implementation of a skilled nursing facility readmission review process. BMJ Open Qual. 2018 Jul 25;7(3):e000245. doi: 10.1136/bmjoq-2017-000245.

31. Glette MK, Røise O, Kringeland T, Churruca K, Braithwaite J, Wiig S. Nursing home leaders' and nurses' experiences of resources, staffing and competence levels and the relation to hospital readmissions - a case study. BMC Health Serv Res. 2018;18(1):955. doi:10.1186/s12913-018-3769-3.

32. Grabowski DC. Putting the nursing and home in nursing homes. Innov Aging. 2022 29;6(4):igac029. doi: 10.1093/geroni/igac029. PMID: 35712322.

33. Ochieng N, Chidambaran P, Musumeci MB. Nursing facility staffing shortages during the COVID-19 pandemic. KFF. https://www.kff.org/coronavirus-covid-19/issue-brief/nursing-facility-staffing-shortages-during-the-covid-19-pandemic/. Published April 04, 2022. Accessed August 28, 2023.

34. Gandhi A, Yu H, Grabowski DC. High nursing staff turnover in nursing homes offers important quality information. Health Aff). 2021;40(3):384-391. doi:10.1377/hlthaff.2020.00957.

35. Chen MM, Grabowski DC. Intended and unintended consequences of minimum staffing standards for nursing homes. Health Econ. 2015;24(7):822-839. doi:10.1002/hec.3063.

36. Centers for Disease Control and Prevention. Nursing home care. https://www.cdc.gov/nchs/fastats/nursing-home-care.htm. Published December 15, 2022. Accessed August 28, 2023.

37. The Authors. Communicating with nursing home residents about end of life. Am J Hosp Palliat Care. 2022;39(11):1257-1265. doi:10.1177/10499091211064835.