NCPD 2.0 ANCC Contact Hour

Professional Case Management
Vol. 29, No. 2, 54-62

Effective Care Transitions

Reducing Readmissions to Improve Patient Care and Outcomes

Tara Kinard, MSN, MBA, RN, ACM-RN, CCM, CENP, Jill Brennan-Cook, DNP, RN, GERO-BC, Sara Johnson, MBA, PMP, Andrea Long, PharmD, John Yeatts, MD, MPH, and David Halpern, MD, MPH, FACP

ABSTRACT

Purpose/Objectives: Care transitions from one setting to another are vulnerable spaces where patients are susceptible to complications. Health systems, accountable care organizations, and payers recognize that care transition interventions are necessary to reduce unnecessary cost and utilization and improve patient outcomes following a hospitalization. Multiple care transition models exist, with varying degrees of intensity and success. This article describes a quality improvement project for a care transition model that incorporates key elements from the American Case Management Association's Transitions of Care Standards and the Transitional Care Management services as outlined by the Centers for Medicare & Medicaid Services.

Primary Practice Setting: A collaboratively developed care transition model was implemented between a health system population health management office and a primary care organization.

Findings/Conclusions: An effective care transitions model is stronger with collaboration among core members of a patient's care team, including a nurse care manager and a primary care provider. Ongoing quality improvement is necessary to gain efficiencies and effectiveness of such a model.

Implications for Case Management Practice: Care managers are integral in coordinating effective transitions. Care management practice includes transition of care standards that are associated with improved outcomes for patients at high risk for readmission. Interventions inclusive of medication reconciliation, identification and addressing of health-related social needs, review of discharge instructions, and coordinated follow-up are important factors that impact patient outcomes. Patients and their health system care teams benefit from the role of a care manager when there is a collaborative, coordinated, and timely approach to hospital follow-up.

Key words: *care management, care transition, hospital readmission, Medicare, transition of care, transitional care management*

Older adults with comorbidities are at an elevated risk of complications during their transition of care to home following hospital admission (Henriksen & Stuckey, 2018). Transitions of care are the movements of patient care from one setting to another; these are vulnerable spaces, as evidenced by their association with adverse health outcomes, including hospital readmissions (Henriksen & Stuckey, 2018). Patients insured by Medicare have the highest hospital readmission rate and cost compared with other patient populations identified by payer source, with a readmission rate of 16.9 per 100 index admissions and average readmission cost of $15,500 (Weiss & Jiang, 2021). Ineffective care transitions, as evidenced by hospital readmissions, medication errors, and inadequate coordination of ambulatory services, lack of clear comprehensive discharge instructions, and miscommunication among care team members, patients, and caregivers, may result in poor patient outcomes, including death (Finlayson et al., 2018; Morkisch et al., 2020).

Programs involving hospital follow-up interventions, including provider visits and hospital follow-up calls, also known as transitional care calls (TCCs), and provider visits, can reduce hospital readmissions and adverse health outcomes (Ballard et al., 2018; Henriksen & Stuckey, 2018; Kripalani et al., 2019; Lowman, 2021; Morkisch et al., 2020; Vergara et al., 2020; Yiadom et al., 2020). In addition, effective care transition models result in positive

Address correspondence to Tara Kinard, MSN, MBA, RN, ACM-RN, CCM, CENP, Population Health Management Office, Duke Health, 3100 Tower Blvd, Ste 1100, Durham, NC 27707 (tara.kinard@duke.edu).

The authors report no conflicts of interest.

DOI: 10.1097/NCM.0000000000000687

Transitions of care are the movements of patient care from one setting to another; these are vulnerable spaces, as evidenced by their association with adverse health outcomes, including hospital readmissions.

Programs involving hospital follow-up interventions, including provider visits and hospital follow-up calls, also known as transitional care calls (TCCs), and provider visits, can reduce hospital readmissions and adverse health outcomes. In addition, effective care transition models result in positive experiences for patients, families, and health care team members.

experiences for patients, families, and health care team members (Li et al., 2022; Mitchell et al., 2018; Smeraglio et al., 2019).

Background

Care transition models have been implemented across the United States to reduce hospital readmissions and other adverse events in high-risk populations, such as adults older than 65 years with multiple comorbidities (Baldwin et al., 2018; Schletzbaum et al., 2023). Several care transition models focus on nurse-led care transition interventions with varying success (Ballard et al., 2018; Berkowitz et al., 2018; Finlayson et al., 2018; Gilbert et al., 2021; Hall et al., 2020; Jack et al., 2009; Joo & Liu, 2021; Kripalani et al., 2019; Morkisch et al., 2020; Schnipper et al., 2021; Vergara et al., 2021; Yiadom et al., 2020). Care transition models, such as Better Outcomes for Older Adults Through Safe Transitions (BOOST), Care Transitions Intervention Model (CTI), the Transitional Care Model (TCM), Project Red, and the Johns Hopkins Community Health Partnership (J-CHiP), have positive outcomes of reduced hospital readmissions, improved communication among care team members, reduced health care costs, and improved patient experiences (Ballard et al., 2018; Berkowitz et al., 2018; Hall et al., 2020; Jack et al., 2009; Joo & Liu, 2021; Kripalani et al., 2019). In 2012, the Centers for Medicare & Medicaid Services (CMS) established a Hospital Readmission Reduction Program (HRRP) to incentivize hospitals to implement strategies that reduce unplanned readmissions. In 2013, CMS adopted Transitional Care Management (TCM) services and enhanced reimbursement codes for patients with Medicare to allow clinicians to receive higher rates of reimbursement when providing TCM services (Bindman & Cox, 2018). As part of these TCM services, multiple interventions exist for patients discharged home from the hospital, including telephonic follow-up within 2 business days of discharge and hospital follow-up with the appropriate provider within 14 days of discharge (Medicare Learning Network, 2022). Although multiple care transition models exist, the amount of resources used does not always correlate with positive patient outcomes; in fact, some lower cost models result in better patient outcomes (Finlayson et al., 2018; Joo & Liu, 2021; Kripalani et al., 2019; Morkisch et al., 2020; Schnipper et al., 2021).

A timely hospital follow-up with a provider is consistently associated with readmission reduction (Ballard et al., 2018; Morkisch et al., 2020). Although little correlation is seen with a hospital follow-up phone call (i.e., TCC) alone, there is greater impact on readmission reduction when the call and hospital follow-up provider visit occur post-hospital discharge (Finlayson et al., 2018; Kripalani et al., 2019; Yiadom et al., 2020). For example, a call within 2 business days of discharge to home may address unmet needs or patient concerns. Reviewing discharge instructions, clarifying unanswered patient/caregiver questions, completing a medication reconciliation and assessing barriers to medication access and transportation, and ensuring that a hospital follow-up appointment has been scheduled with the primary care provider

Although multiple care transition models exist, the amount of resources used does not always correlate with positive patient outcomes; in fact, some lower cost models result in better patient outcomes.

A timely hospital follow-up with a provider is consistently associated with readmission reduction.

(PCP) or other appropriate provider are critical components of the call that can improve patient outcomes (Ballard et al., 2018; Finlayson et al., 2018; Hall et al., 2020; Joo & Liu, 2021; Kripalani et al., 2019; Li et al., 2022; Yiadom et al., 2020). Transitional care calls yield additional reimbursement from Medicare when the call is completed by the appropriate care team member, such as a nurse, and coupled with the hospital follow-up provider visit. However, despite improved outcomes and opportunity for enhanced reimbursement in this model, the use of TCM services remains low while offering a real option for tangible change (Bindman & Cox, 2018). Similarly, although our health system had implemented hospital follow-up phone calls, they were not delivered consistently or in a standardized manner, and our hospital readmission rates for patients older than 65 years were above the national benchmark of hospitals similar in size and populations.

Purpose of Study

The purpose of this quality improvement (QI) project was to increase the volume of completed TCCs within 2 business days of hospital discharge and schedule provider follow-up visits within 14 days of discharge as interventions to reduce readmissions for high-risk patients as supported in the literature (Ballard et al., 2018; Hall et al., 2020; Joo & Liu, 2021; Kripalani et al., 2019; Li et al., 2022).

Primary Practice Setting

This project took place in a large Southeastern academic medical center. The entities working collaboratively on the proposed interventions were a population health management office and a large multisite primary care organization. The population health management office employs a multidisciplinary care management team, including nurses who complete the TCC and document directly into the shared patient electronic health record accessible to health care providers on the patient's care team.

Aims

This QI project was part of a larger health system initiative to reduce hospital readmissions. The authors implemented an enhanced TCC protocol to assess the impact of two specific care transition interventions on the 30-day all-cause readmission rate following hospital discharge to home for patients insured by Medicare and identified by the electronic medical record's risk tool as at high risk for readmission. Patients who are at high risk for readmission are identified within the health system's electronic medical record using a readmission risk score based on a myriad of factors (Gallagher et al., 2020). The project aims are as follows:

Aim 1: Increase the number of completed TCM-eligible TCC calls for high-risk active primary care patients insured by Medicare by 50% for 3 consecutive months (baseline = 65 calls per month).

Aim 2: Increase the number of hospital follow-up appointments scheduled post-nurse-led TCCs within 14 days of discharge by 20%.

Aim 3: Reduce 30-day readmission rates for high-risk active primary care patients insured by Medicare by 2%.

The outcomes of each aim are explained in more detail under the "Results and Discussion" section.

Methodology and Sample

This QI project used a pre/posttest design. This project has been formally evaluated using a QI checklist and determined not to be human subjects' research. The target population for this TCC intervention was active primary care patients insured by Medicare, discharged home from one of the three health system hospitals, and identified as at high risk for readmission. Excluded were patients who were not insured by Medicare, discharged home from one of the three health system hospitals, and not deemed at high risk for readmission. Nurses employed by the population health management office completed the TCC for the target population and scheduled the hospital follow-up visit with the appropriate PCP or other provider for patients who did not already have their visit scheduled at time of the call.

Interventions

The literature supports improved outcomes among older adults who were hospitalized, discharged home, and received common elements of a TCC and provider visit (Berkowitz et al., 2018; Finlayson et al., 2018; Hall et al., 2020; Jack et al., 2009; Kripalani et al., 2019; Li et al., 2022; Yiadom et al., 2020). This QI project incorporates some of these common elements and mirrors the TCM services that CMS outlines as eligible for enhanced reimbursement:

(a) A TCC completed within 2 business days of discharge that addresses core components of education related to discharge plan of care, resource connection, medication reconciliation, addressing discharge needs timely, and communication and connection back to the patient's PCP; and (b) a hospital follow-up visit within 14 days of discharge that occurs with a PCP or other appropriate provider (CMS, 2021). Although the TCC nurses did not follow a prescriptive script during the call, they adhered to the TCC core components (listed earlier) guided by the patient conversation.

A daily Readmission Risk Report generated within the patient's electronic medical record provided real-time hospital discharge and risk stratification for the TCC nurse (Gallagher et al., 2020). Before calling the patient, the TCC nurse conducted a brief chart review, becoming familiar with the patient's discharge instructions, medical conditions, and upcoming appointments. The TCC nurse made a telephonic outreach effort to the patient and if the patient was not reached, a second attempt was made within 2 business days of discharge. The TCC nurse documented within a standardized TCM outreach flow sheet, addressed unmet patient needs, and routed the information to the patient's PCP and the scheduled follow-up provider, if different from the patient's PCP. The TCC nurse attempted to schedule a hospital follow-up visit within 14 days of discharge for patients who did not have a visit scheduled at the time of the TCC. The TCC nurses were also trained how to directly schedule PCP hospital follow-up visits to minimize scheduling hold times in an effort to improve efficiency and patient experience. This workflow for the TCC is outlined in Figure 1.

Implementation Strategy

The project aims focused on improving, expanding, and understanding the impact of the collaboratively developed care transition model that was first implemented in December 2020 between the population health management office and the primary care organization. Preliminary review of data indicated an opportunity to improve consistency in the number and delivery of TCCs. For example, assistance with scheduling a PCP hospital follow-up visit was not consistently offered. There was also variance in the number of TCCs completed by the TCC nurse team. Retraining for the TCC nurses occurred individually and in small groups that addressed knowledge deficits and gaps in documentation using the TCM outreach standardized assessment. Once implemented, pre- and postimplementation data were collected and analyzed. This retraining consisted of the following:

1. Education pertaining to the components of the evidence-based TCC (e.g., discharge plan of care, medication reconciliation, resource connection, identifying and addressing postdischarge needs timely) and direct scheduling with primary care for hospital follow-up appointments.
2. Weekly and monthly review and discussion of most recent data review.
3. Development and execution of PDSA (Plan–Do–Study–Act) cycles informed by data and TCC nurse feedback.

A workflow for the TCCs was developed (see Figure 1).

Data were reviewed weekly and monthly to look at volumes of calls completed, by whom, timing of call attempt(s) postdischarge, and whether or not the

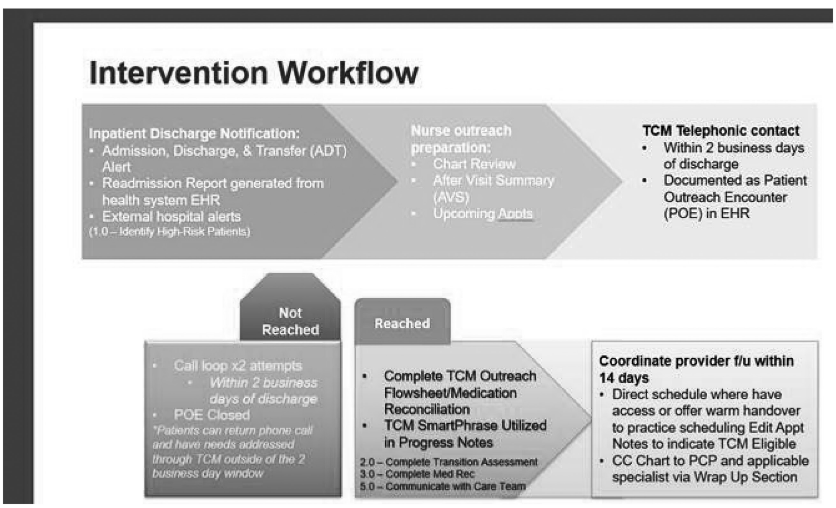


FIGURE 1
TCC workflow description. *Note*. PCP = primary care provider; TCC = transitional care call; TCM = Transitional Care Model.

patient had a follow-up visit scheduled within 14 days of discharge. Manual chart reviews that looked at the entire process (see Figure 1) revealed opportunities for education and improvement and to learn best practices from team members that could be spread to others. Stakeholder interviews that included frontline team members and providers also informed the process.

Results and Discussion

A pre/posttest chi-square value was calculated for each of the project aims. For the time period between November 1, 2022, and January 30, 2023, a total of 432 patients met our target population.

For Aim 1, the TCC reaches improved significantly from pre (194/453; 42.8%) to post (222/432; 51.4%), $p = .013$, demonstrating a 20.1% relative improvement (see Table 1). Our TCC nurses were able to expand their reach rate each month, as their skill set and efficiency to complete the TCCs improved. Timely TCCs are associated with improved patient outcomes (Finlayson et al., 2018; Hall et al., 2020; Kripalani et al., 2019; Yiadom et al., 2020).

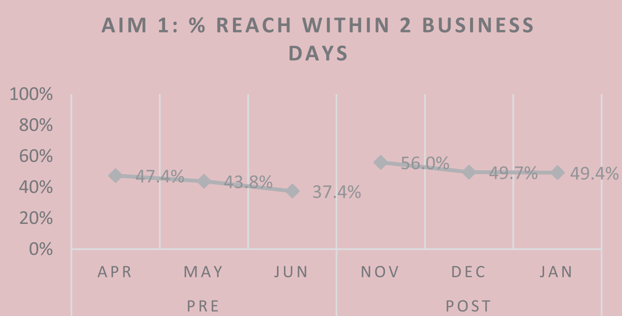
For Aim 2, the number of scheduled provider appointments improved significantly from pre (112/194; 57.7%) to post (184/222; 89.9%), $p < .001$, demonstrating a 43.7% improvement (see Table 2). We believe our improvement in scheduling provider appointment was related to two factors: (a) Our TCC nurses were trained how to direct schedule patients for PCP hospital follow-up appointments and (b) the project incorporated a required question within our assessment tool that prompted the TCC nurses to respond about helping the patient to schedule if there was not already a scheduled appointment. Timely hospital follow-up visits are associated with improved patient outcomes (Finlayson et al., 2018; Hall et al., 2020; Kripalani et al., 2019; Yiadom et al., 2020).

For Aim 3, all-cause readmissions within 30 days for reaches increased, but not significantly. There were 49 of 194 in pre (25.3%) and 60 of 222 in post (27%), $p = .738$. During the time period of project implementation, data reflected a slight increase in all-cause readmissions across total discharges as compared with other time periods. Readmissions for all discharges increased during the project implementation time period, but not significantly (see Table 3). The readmission rate for total discharges was 25.2% (114/453) in pre and 28% (121/432) in post, $p = .361$. Transitional care interventions, such as the TCC and hospital follow-up visit, are associated with readmission reduction in other models (Ballard et al., 2018; Berkowitz et al., 2018; Finlayson et al., 2018; Hall et al., 2020; Jack et al., 2009; Joo & Liu, 2021; Kripalani et al., 2019; Li et al., 2022; Yiadom et al., 2020). Although readmission reduction was not demonstrated for this specific QI project time frame of 3 months (see Table 3), use of this TCC model beyond this project demonstrates decreased hospital readmission rates in 2023, similar to the BOOST, CTI, TCM, Project Red, and J-CHiP models (Ballard et al., 2018; Berkowitz et al., 2018; Hall et al., 2020; Jack et al., 2009; Joo & Liu, 2021; Kripalani et al., 2019).

Since beginning this project, an expanded and trained team is in place, consistent training and onboarding for new team members have been implemented, and QI measures with continual reeducational training remain ongoing. Additional questions that screen for health-related social needs such as transportation, housing, and medication affordability have been expanded, and efficiencies and additional ways of outreach have been developed.

TABLE 1
Completed TCM-Eligible TCC Calls

	Pre			Post		
Aim 1	**Apr 2022**	**May 2022**	**Jun 2022**	**Nov 2022**	**Dec 2022**	**Jan 2023**
% Reach within 2 business days	47.4%	43.8%	37.4%	56.0%	49.7%	49.4%

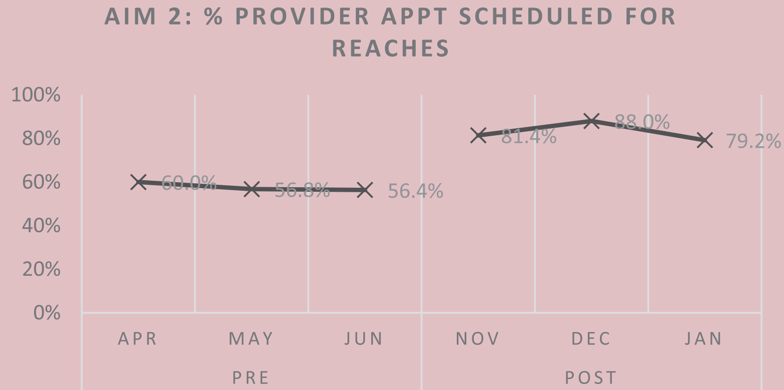


Note. Pre $N = 453$. Post $N = 432$. Patients were active primary care patients, insured by Medicare, discharged home from one of the three health system hospitals, and identified as at high risk for readmission. TCC = transitional care call; TCM = Transitional Care Model.

TABLE 2

Post-TCC Call Scheduled Hospital Follow-Up Appointments Within 14 Days of Discharge

	Pre			Post		
Aim 2	**Apr 2022**	**May 2022**	**Jun 2022**	**Nov 2022**	**Dec 2022**	**Jan 2023**
% Provider appointment scheduled for reaches	60.0%	56.8%	56.4%	81.4%	88.0%	79.2%



Note. Pre *N* = 194. Post *N* = 222. Patients were active primary care patients, insured by Medicare, discharged home from one of the three health system hospitals, and identified as at high risk for readmission. TCC = transitional care call.

Limitations

The limitations of this QI project are that it was implemented in one health system, and results may vary when implemented elsewhere. This project was limited to five TCC nurses who are part of a much larger team and who contacted active patients of a specific primary care practice group, identified as at high risk for readmission, and insured by Medicare. Results may vary on the basis of size and type of patient population. Data were not collected on language barriers or health literacy, which may have influenced results.

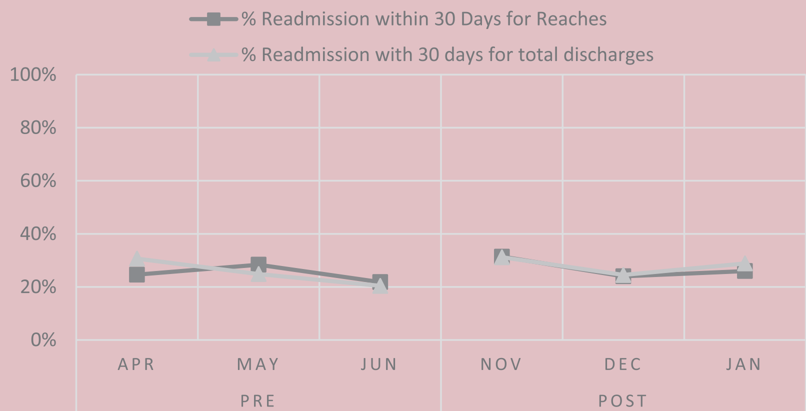
Implications for Case Management Practice

Care transitions from one setting to another can be complex and vulnerable spaces for people, and care manage-

TABLE 3

30-Day All-Cause Readmission Rates for Patients With a Completed TCC Compared With Total Discharges

	Pre			Post		
Aim 3	**Apr 2022**	**May 2022**	**Jun 2022**	**Nov 2022**	**Dec 2022**	**Jan 2023**
% Readmission within 30 days for reaches	24.6%	28.4%	21.8%	31.4%	24.0%	26.0%
% Readmission with 30 days for total discharges	30.7%	24.9%	20.4%	31.2%	24.5%	28.8%



Note. Reaches: Pre *N* = 194. Post *N* = 222. Total: Pre *N* = 453. Post *N* = 432. Patients were active primary care patients, insured by Medicare, discharged home from one of the three health system hospitals, and identified as at high risk for readmission. TCC = transitional care call.

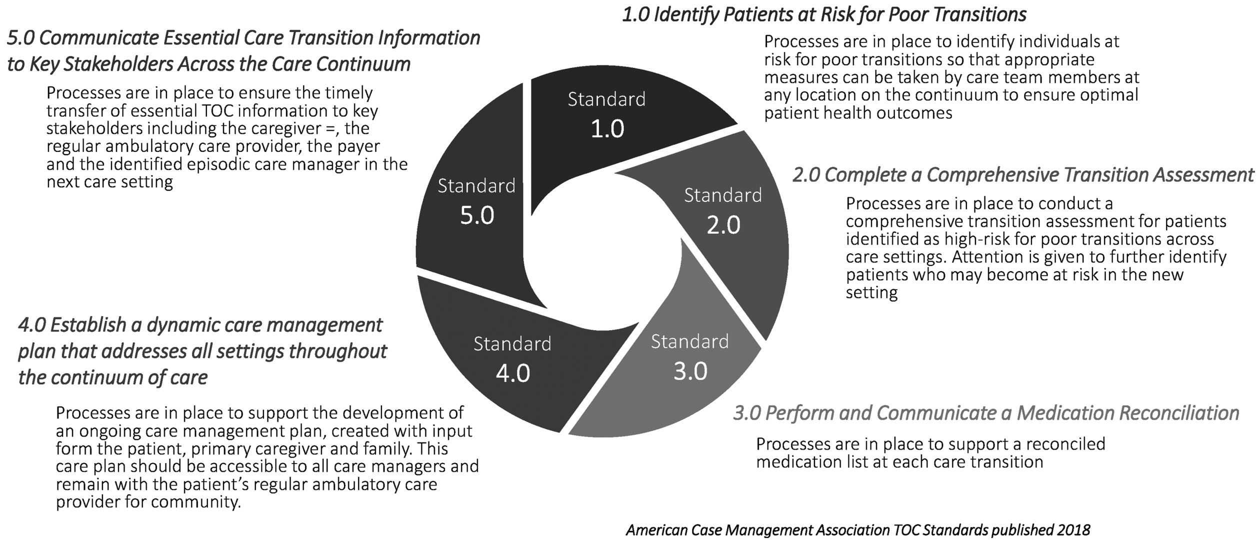


FIGURE 2
American Case Management Association transition of care standards. TOC = transition of care.

ment practice can address risks associated with preventable readmissions (Hewner et al., 2021). Care managers engage in care transition management and coordination functions that integrate a person's choice, available resources, and the assessment of the health care team (American Case Management Association [ACMA], 2019). Poorly executed care transitions are associated with adverse patient outcomes, and providing care management services to patients deemed as high-risk transitions have been associated with improved coordination of care and communication among care team members, benefits patients and their families, and reduces duplication of services contributing to improved cost and quality outcomes (Agency for Healthcare Research and Quality [AHRQ], 2018). The collaboration of a multidisciplinary team inclusive of nurses, physicians, advanced practice providers, pharmacists, and care managers is essential to a successful care transition from hospital to home. Patients are susceptible to complications during their care transition period due to factors such as medication discrepancy, lack of coordinated follow-up and communication among care team members, unclear discharge instructions, and health-related social needs (e.g., transportation, food insecurity, financial assistance). This TCC intervention identified and assisted patients within the target population in need of additional services, regardless of their demographics. In addition, this intervention incorporates four of the five transitions of care standards, as outlined in Figure 2 by ACMA (2019).

Conclusion

Older adults who are hospitalized, discharged home, and received common elements of a hospital follow-up phone call and provider visit are known to experience improved outcomes (Finlayson et al., 2018; Hall et al., 2020; Kripalani et al., 2019; Yiadom et al., 2020). This QI project incorporated some of these common elements and mirrored the TCM services that CMS outlines as eligible for enhanced reimbursement:

a. A TCC completed within 2 business days of discharge that addresses core components of education, resource connection, medication reconciliation, and communication and connection back to the patient's PCP; and
b. A hospital follow-up visit within 14 calendar days of discharge that occurred with a PCP or other appropriate provider (Medicare Learning Network, 2022).

Use of a consistent documentation template available within the electronic medical record supported standard work and enhanced communication with care team members. Successful care transitions are most effective and sustainable with partnership and collaboration among a multidisciplinary team inclusive of physicians, advanced practice providers, nurses, and care managers. Through a standardized approach and scope, the project was able to identify and address immediate needs that may have led to a hospital readmission.

References

Agency for Healthcare Research and Quality (AHRQ). (2018, August). *Care management: Implications for medical practice, health policy, and health services research*. AHRQ. https://www.ahrq.gov/ncepcr/care/coordination/mgmt.html

American Case Management Association (ACMA). (2019). *Transitions of care standards*. https://transitionsofcare.

org/wpcontent/uploads/2019/01/ACMA-Transitions-of-Care-Standards_Final_Endorsed-2.pdf

Baldwin, S. M., Zook, S., & Sanford, J. (2018). Implementing posthospital interprofessional care team visits to improve care transitions and decrease hospital readmission rates. *Professional Case Management*, *23*(5), 264–271. https://doi.org/10.1097/NCM.0000000000000284

Ballard, J., Rankin, W., Roper, K. L., Weatherford, S., & Cardarelli, R. (2018). Effect of ambulatory transitional care management on 30-day readmission rates. *American Journal of Medical Quality*, *33*(6), 583–589. https://doi.org/10.1177/1062860618775528

Berkowitz, S., Parashuram, S., Rowan, K., Andon, L., Bass, E. B., Bellantoni, M., Brotman, D., Deutschendorf, A., Dunbar, L., Durso, S. C., Everett, A., Giuriceo, K. D., Hebert, L., Hickman, D., Hough, D. E., Howell, E. E., Huang, X., Lepley, D., Leung, C., … Johns Hopkins Community Health Partnership (J-CHiP) Team. (2018). Association of a care coordination model with health care costs and utilization: The Johns Hopkins Community Health Partnership (J-CHiP). *JAMA Network Open*, *1*(7), e184273. https://doi.org/10.1001/jamanetworkopen.2018.4273

Bindman, A. B., & Cox, D. F. (2018). Changes in health care costs and mortality associated with transitional care management services after a discharge among Medicare beneficiaries. *JAMA Internal Medicine*, *178*(9), 1165–1171. https://doi.org/10.1001/jamainternmed.2018.2572

Centers for Medicare & Medicaid Services (CMS). (2021). *Hospital readmissions reduction program*. Retrieved January 17, 2022, from https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Value-Based-Programs/HRRP/Hospital-Readmission-Reduction-Program

Finlayson, K., Chang, A., Courtney, M., Edwards, H. E., Parker, A. W., Hamilton, K., Pham, T. D. X., & O'Brien, J. (2018). Transitional care interventions reduce unplanned hospital readmissions in high-risk older adults. *BMC Health Services Research*, *18*(1), 956. https://doi.org/10.1186/s12913-018-3771-9

Gallagher, D., Zhao, C., Brucker, A., Massengill, J., Kramer, P., Poon, E. G., & Goldstein, B. A. (2020). Implementation and continuous monitoring of an electronic health record embedded readmissions clinical decision support tool. *Journal of Personalized Medicine*, *10*(3), 103. https://doi.org/10.3390/jpm10030103

Gilbert, T., Occelli, P., Rabilloud, M., Poupon-Bourdy, S., Riche, B., Touzet, S., Bonnefoy, M., & PROUST Study Group. (2021). A nurse-led bridging program to reduce 30-day readmissions of older patients discharged from acute care units. *Journal of the American Medical Directors Association*, *22*(6), 1292–1299.e5. https://doi.org/10.1016/j.jamda.2020.09.015

Hall, K. K., Shoemaker-Hunt, S., Hoffman, L., Richard, S., Gall, E., Schoyer, E., Costar, D., Gale, B., Schiff, G., Miller, K., Earl, T., Katapodis, N., Sheedy, C., Wyant, B., Bacon, O., Hassol, A., Schneiderman, S., Woo, M., LeRoy, L., … Lim, A. (2020). *Making healthcare safer III*. Agency for Healthcare Research and Quality. https://www.ahrq.gov/research/findings/making-healthcare-safer/mhs3/index.html

Henriksen, B., & Stuckey, N. (2018). Effects of transitional care management services from an interprofessional team on 30-day readmission rates among Medicare beneficiaries. *Topics in Geriatric Rehabilitation*, *34*(3), 182–184. https://doi.org/10.1097/TGR.0000000000000192

Hewner, S., Chen, C., Anderson, L., Pasek, L., Anderson, A., & Popejoy, L. (2021). Transitional care models for high-need, high-cost adults in the United States. *Professional Case Management*, *26*(2), 82–98. https://doi.org/10.1097/ncm.0000000000000442

Jack, B., Chetty, V. K., Anthony, D., Greenwald, J. L., Sanchez, G. M., Johnson, A. E., Forsythe, S. R., O'Donnell, J. K., Paasche-Orlow, M. K., Manasseh, C., Martin, S., & Culpepper, L. (2009). A reengineered hospital discharge program to decrease rehospitalization: A randomized trial. *Annals of Internal Medicine*, *150*(3), 178–187. https://doi.org/10.7326/0003-4819-150-3-200902030-00007

Joo, J., & Liu, M. (2021). Effectiveness of transitional care interventions for chronic illnesses: A systematic review of reviews. *Applied Nursing Research*, *61*, 151485. https://doi.org/10.1016/j.apnr.2021.151485

Kripalani, S., Chen, G., Ciampa, P., Theobald, C., Cao, A., McBride, M., Dittus, R. S., & Speroff, T. (2019). A transition care coordinator model reduces hospital readmissions and costs. *Contemporary Clinical Trials*, *81*, 55–61. https://doi.org/10.1016/j.cct.2019.04.014

Li, J., Mays, G., Clouser, J. M., Du, G., Stromberg, A., Jack, B. W., Nguyen, H. Q., & Williams, M. V. (2022). Information exchange among providers and patient-centeredness in transitional care: A five-year retrospective analysis. *Healthcare (Amsterdam, Netherlands)*, *10*(2), 100626. https://doi.org/10.1016/j.hjdsi.2022.100626

Lowman, P. (2021). A multi-faceted approach to reduce readmissions. *Collaborative Case Management*, *77*, 23–30.

Medicare Learning Network. (2022). *Transitional care management services—CMS*. Retrieved September 15, 2022, from https://www.cms.gov/outreach-and-education/medicare-learning-network-mln/mlnproducts/downloads/transitional-care-management-services-fact-sheet-icn908628.pdf

Mitchell, S., Laurens, V., Weigel, G. M., Hirschman, K. B., Scott, A. M., Nguyen, H. Q., Martin Howard, J., Laird, L., Levine, C., Davis, T. C., Gass, B., Shaid, E., Li, J., Williams, M. V., & Jack, B. W. (2018). Care transitions from patient and caregiver perspectives. *Annals of Family Medicine*, *16*(3), 225–231. https://doi.org/10.1370/afm.2222

Morkisch, N., Upegui-Arango, L. D., Cardona, M. I., van den Heuvel, D., Rimmele, M., Sieber, C. C., & Freiberger, E. (2020). Components of the transitional care model (TCM) to reduce readmission in geriatric patients: A systematic review. *BMC Geriatrics*, *20*(1), 345. https://doi.org/10.1186/s12877-020-01747-w

Schletzbaum, M., Kind, A. J., Chen, Y., Astor, B. C., Ardoin, S. P., Gilmore-Bykovskyi, A., Sheehy, A. M., Kaiksow, F. A., Powell, W. R., & Bartels, C. M. (2023). Age-stratified 30-day rehospitalization and mortality and predictors of rehospitalization among patients with systemic lupus erythematosus: A Medicare cohort study. *The Journal of Rheumatology*, *50*(3), 359–367. https://doi.org/10.3899/jrheum.220025

Schnipper, J. L., Samal, L., Nolido, N., Yoon, C., Dalal, A. K., Magny-Normilus, C., Bitton, A., Thompson, R., Labonville, S., & Crevensten, G. (2021). The effects of a multifaceted intervention to improve care transitions within an accountable care organization: Results of a stepped-wedge cluster-randomized trial. *Journal of Hospital Medicine*, *16*(1), 15–22. https://doi.org/10.12788/jhm.3513

Smeraglio, A., Heidenreich, P. A., Krishnan, G., Hopkins, J., Chen, J., & Shieh, L. (2019). Patient vs provider perspectives of 30-day hospital readmissions. *BMJ Open Quality*, *8*(1), e000264. https://doi.org/10.1136/bmjoq-2017-000264

Vergara, F. H., Budhathoki, C., Sheridan, D. J., Davis, J. E., & Sullivan, N. J. (2021). Predictors for telephone outreach post-hospital discharge. *Professional Case Management*, *26*(6), 286–297. https://doi.org/10.1097/ncm.0000000000000530

Vergara, F. H., Davis, J. E., Budhathoki, C., Sullivan, N. J., & Sheridan, D. J. (2020). Face-to-face meetings with neurosurgical patients before hospital discharge: Impact on telephonic outreach, emergency department visits, and hospital readmissions. *Population Health Management*, *23*(2), 174–182. https://doi.org/10.1089/pop.2019.0038

Weiss, A. J., & Jiang, H. J. (2021). *Overview of clinical conditions with frequent and costly hospital readmissions by payer, 2018* (HCUP Statistical Brief #278). Agency for Healthcare Research and Quality. www.hcup-us.ahrq.gov/reports/statbriefs/sb278-Conditions-Frequent-Readmissions-By-Payer-2018.pdf

Yiadom, M. Y. A. B., Domenico, H. J., Byrne, D. W., Hasselblad, M., Kripalani, S., Choma, N., Tucker-Marlow, S., Gatto, C. L., Wang, L., Bhatia, M. C., Morrison, J., Harrell, F. E., Hartert, T. V., Lindsell, C. J., & Bernard, G. R. (2020). Impact of a follow-up telephone call program on 30-day readmissions (FUTR-30): A pragmatic randomized controlled real-world effectiveness trial. *Medical Care*, *58*(9), 785–792. https://doi.org/10.1097/MLR.0000000000001353

Tara Kinard, MSN, MBA, RN, ACM-RN, CCM, CENP, is Associate Chief Nursing Officer at Duke Health's Population Health Management Office. She is the DNP student noted during implementation of this quality improvement project, and her interests include improving health equity, patient outcomes, and care delivery for patients during care transitions.

Jill Brennan-Cook, DNP, RN, GERO-BC, is Associate Clinical Professor of Nursing at Duke University School of Nursing. Her current scholarship focuses on older adults, myeloproliferative neoplasm (MPN), and health inequities.

Sara Johnson, MBA, PMP, is the Associate Vice President, Population Health and Innovation at Duke Primary Care. In this role, Sara leads the strategic planning and project management of Duke Primary Care's Population Health programs and initiatives.

Andrea Long, PharmD, is a licensed Pharmacist and Information Technology Director, Population Health Analytics at Duke Health Technology Solutions and the Duke Population Health Management Office.

John Yeatts, MD, MPH, is a practicing internist and serves as Assistant Vice President and Chief Medical Officer of Population Health at Duke Health, as well as the Executive Director of the Population Health Management Office and Duke Connected Care, Duke's Accountable Care Organization.

David Halpern, MD, MPH, FACP, is a practicing internist and serves as the Senior Medical Director for Quality and Population Health at Duke Primary Care.

Lippincott® NursingCenter® · PACE · CE NCPD Nursing Continuing Professional Development

INSTRUCTIONS

Effective Care Transitions: Reducing Readmissions to Improve Patient Care and Outcomes

Instructions:

- Read the article. The test for this CE activity can only be taken online at www.nursingcenter.com/ce/PCM.
- You will need to create (its free!) and login to your personal CE Planner account before taking online tests. Your planner will keep track of all your Lippincott Professional Development online CE activities for you.
- There is only one correct answer for each question. A passing score for this test is 8 correct answers. If you pass, you can print your certificate of earned contact hours and access the answer key. If you fail, you have the option of taking the test again at no additional cost.
- For questions, contact Lippincott Professional Development: 1-800-787-8985.

Continuing Education Information for Certified Case Managers:
This Continuing Education (CE) program is provided by Lippincott Professional Development and has been preapproved by the Commission for Case Manager Certification (CCMC) to provide CE credit to Certified Case Managers (CCMs) for 1.0 contact hours. This CE program is approved for meeting the requirements for certification renewal.

Registration Deadline: March 1, 2025

Continuing Education Information for Certified Professionals in Healthcare Quality (CPHQ):
This continuing education (CE) activity is provided by Lippincott Professional Development and has been approved by the National Association for Healthcare Quality (NAHQ) for 2.0 CE Hours. CPHQ CE Hours are based on a 60-minute hour. This CE is approved for meeting requirements for certification renewal.

This CPHQ CE activity expires on March 1, 2025.

Continuing Education Information for Nurses:
Lippincott Professional Development will award 2.0 contact hours for this continuing nursing education activity.

LPD is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation.

This activity is also provider approved by the California Board of Registered Nursing, Provider Number CEP 11749. LPD is also an approved provider by the District of Columbia, Georgia, West Virginia, New Mexico, South Carolina, and Florida CE Broker #50-1223.

Registration Deadline for Nurses: March 1, 2025

Disclosure Statement:
The author and planners have disclosed no potential relevant financial relationships or otherwise.

Payment and Discounts:

- The registration fee for this test is $21.95
- CMSA members can save 25% on all CE activities from *Professional Case Management* ! Contact your CMSA representative to obtain the discount code to use when payment for the CE is requested.

DOI: 10.1097/NCM.0000000000000714